PEWETA

display
measure
distribute
record
TIME

# 2020 Catalogue

## New Horizons

- PEWETA® *DCFport24* pulse telegram
- PEWETA® *AirPort24* wireless telegram
- NTP clients (LAN)
- KNX® by theben®

# At a Glance

At a glance

**Wall clocks “office type”**
quartz controlled
and radio controlled

**Wall clocks “representative type”**
for places of high publicity

**Indoor clocks**
250..400 mm diameter,
round and square,
single and double face

**Large space clocks**
400..600 mm diameter,
round and square,
single, double, and 4 faces

**Special clocks**
e. g. for saunas and pace
clocks for swim training

**Clocks for operating theatres, clean rooms**
for in-wall mounting,
analog and digital

**LED digital clocks**
for indoors
time and date display,
World Time Clocks

**LCD digital clocks**
for indoors
time and date display,
analog or digital

**Display systems**
for indoors
time and date display,
game result display boards

**Analog clocks**
for outdoors
round and square,
single, double, and 4 faces

**Display systems**
for outdoors, time and
temperature displays,
game result display boards

**Master clocks/ control units**

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# KNX secondary clocks

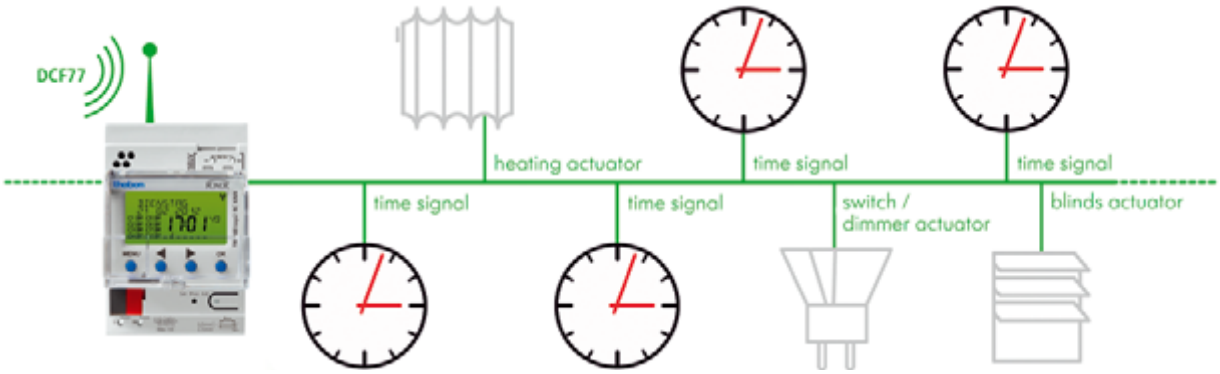
The clocks are ticking: synchronised and everywhere.

KNX secondary clocks

## KNX secondary clock systems and their benefits

At railway stations and airports, in schools and administrative buildings, as well as in the industrial sector, the display play of the precise time plays an ever more important role. Clocks set the pace! Synchronising all the clocks in these spacious buildings is a great effort. Here, KNX secondary clock systems have a clear advantage. They control all connected clocks with only one time transmitter.

A KNX secondary clock system consists of a time transmitter and one or several KNX compatible secondary clocks, receiving the time signal. As a time transmitter, the TR 648 top2 RC KNX time switch or Meteodata 140 GPS weather station from Theben can be used. It sends the time and date signal to all connected clocks via the KNX bus. Especially with large and spacious arrangements, the advantage is obvious: All clocks are centrally synchronised.




Apart from the time signal, switch commands for lighting and climate control can also be sent via the KNX bus.

## Economic benefits

The economic benefits become evident during installation and start-up: KNX secondary clocks are supplied with operating voltage and time information via the KNX bus. In comparison to a conventional clock system, where a separate supply network has to be installed, installation and start-up costs are significantly reduced.

## Theben – Competence in time and KNX

Since its foundation in 1921, the roots of the company have been in time switch technology: Tariff time switches and staircase light timer switches were the products of the early days. Today, more than 90 years later, Theben is one of the worldwide leading manufacturers of intelligent solutions for time and lighting control, climate control and KNX building system technology. Since 1995, Theben has been a member of the "KNX Association" and has significantly contributed to the development of KNX becoming a worldwide standard.

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# Operating Modes
## technologies appropriate for any task

| | Function | Advantages |
|---|---|---|
| **Synchronous clocks, mains operation 230 VAC/50 Hz**<br>Item No. starts with 21. ... | Accuracy is dependent on the frequency of the mains power grid, synchronous clocks are accurate at exactly 50 Hz. When mains power is lost, clocks will stop. Setting and changing the time indication are manual. Operating voltage: 230 VAC/50 Hz. | ■ sturdy, long-life movement<br>■ easy to install<br>■ no battery to change<br>■ second hand included |
| **Quartz clocks, battery operation 1.5 V**<br>Item No. starts with 41. ... or with 44. ... (soundless type) | Accuracy is determined by an oscillating crystal. Average deviation is less than +/- 1 second/day. Setting and changing the time indication are manual. Operating voltage: 1.5 V. | ■ independent of mains power<br>■ next to no malfunctions<br>■ most cost-effective type<br>■ second hand included |
| **Quartz clocks, mains operation 230 VAC/50 Hz**<br>Item No. starts with 42. ... | Accuracy is determined by an oscillating crystal. Average deviation is less than +/- 1 second/day. Setting and changing the time indication are manual. Operating voltage: 230 VAC/50 Hz. | ■ easy to install<br>■ no battery to change |
| **DCF77 radio controlled clocks, battery operation 1.5 V**<br>Item No. starts with 51. ... | Synchronised by the DCF77 time signal radio transmitter in Mainflingen near Frankfurt/Main, time is always accurate to the split second. Time adjustment and changeover to summer/winter time are fully automatic. Operating voltage: 1.5 V. | ■ uniform time indication<br>■ adjustment and changeover to summer/winter time fully automatic<br>■ mains-independent operation<br>■ second hand up to 400 mm diam. included |
| **DCF77 radio controlled clocks, mains operation 230 VAC/50 Hz (partly with power outage reserve)**<br>Item No. starts with 52. ... | Same mode of operation as battery operated DCF77 radio controlled clocks. When mains power is lost, clocks will stand still (clocks with power outage reserve will continue to operate). After return of power, the clocks will automatically return to accurate time. Operating voltage: 230 VAC/50 Hz. | ■ uniform time indication<br>■ adjustment and changeover to summer/winter time fully automatic<br>■ maintenance-free (no battery to change)<br>■ second hand up to 400 mm diam. included |
| **Slave clocks, 12–60 V minute pulse**<br>Item No. starts with 71. ... | Slave clocks to be connected to a master clock. Control is by polarity alternating minute pulse. Presetting and changing of time indication are manual. Operating voltage: 12/24/48/60 V minute pulse. | ■ uniform time indication<br>■ solid, dependable, tried-and-true movement technology<br>■ most cost-effective slave clock system |
| **Slave clocks, 12/24 V minute/second pulse**<br>Item No. starts with 72. ... or with 73. ... (soundless type) | Slave clocks to be connected to a master clock with at least 2 slave clock lines. Control is by polarity alternating minute and second pulses. Presetting and changing of time indication are manual. Operating voltage: 12/24 V minute and second pulse. | ■ uniform time indication<br>■ solid, dependable, tried-and-true movement technology<br>■ second hand included |
| **Slave clocks, 12/24 V minute pulse with synchronous second hand 230 VAC/50 Hz**<br>Item No. starts with 74. ... | Slave clocks to be connected to a master clock. Control is by polarity alternating minute pulse. Second hand separately operated by 230 VAC mains power. Presetting and changing of time indication are manual. Operating voltage: 12/24 V min. pulse and 230 VAC. | ■ uniform time indication<br>■ Large, highly visible second hands feasible for clock faces up to 800 mm diameter (as known from railway station clocks) |
| **Slave clocks, 12/24 V second pulse**<br>Item No. starts with 75. ... | Slave clocks to be connected to a master clock. Control is by polarity alternating second pulse. Presetting and changing of time indication are manual. Operating voltage: 12/24 V second pulse. | ■ uniform time indication<br>■ solid, dependable, tried-and-true movement technology<br>■ second hand included |
| **Slave clocks *DCFport24* 12/24 V pulse telegram**<br>Item No. starts with 81. ... | Slave clocks to be connected to a PEWETA type series 920 master clock. Control is by *DCFport24* time telegrams. Presetting and changing of time indication are always automatic. Operating voltage: 12/24 V *DCFport24* telegram. | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ simple setup for initial operation ("plug-and-play")<br>■ second hand up to 400 mm diam. included |
| **Slave clocks *DCFport24* pulse telegram, 230 VAC/50 Hz mains operation**<br>Item No. starts with 83. ... | Same mode of operation as 12/24 V *DCFport24* slave clocks. When mains power is lost, clocks will stand still. After return of power, the clocks will automatically return to accurate time. Operating voltage: *DCFport24* (24 V) and 230 VAC. | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ simple setup for initial operation ("plug-and-play")<br>■ second hand up to 400 mm diam. included |
| **Slave clocks *AirPort24* radio telegram, 1.5 V battery operation**<br>Item No. starts with 84. ... | Control is carried out by *AirPort24* radio telegram emitted by a PEWETA *AirPort24* radio transmitter. Presetting and changing of time indication are always automatic. Operating voltage: 1.5 V. | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ simple, cost-effective setup<br>■ independent of mains power<br>■ second hand up to 400 mm diam. included |
| **Slave clocks, *AirPort24* radio telegram, 230 VAC/50 Hz mains operation (partly with power outage reserve)**<br>Item No. starts with 85. ... | Same mode of operation as battery controlled *AirPort24* clocks. When mains power is lost, clocks will stand still (clocks with power outage reserve will continue to operate). After return of power, the clocks will automatically return to accurate time. Operating voltage: 230 VAC/50 Hz. | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ simple, cost-effective setup<br>■ maintenance-free (no battery to change)<br>■ second hand up to 400 mm diam. included |
| **Slave clocks, NTP synchronisation via LAN power supply by PoE**<br>Item No. starts with 91. ... | Slave clocks with RJ45 connection. Automatic time takeover from LAN. An NTP time server is required as a time emitter. Operating voltage: PoE (Power over Ethernet). | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ time zone adjustable per clock at any time<br>■ second hand up to 400 mm diam. included |
| **Slave clocks, NTP synchronisation via LAN 230 VAC/50 Hz mains operation**<br>Item No. starts with 93. ... | Slave clocks with RJ45 connection and separate power supply. Automatic time takeover from LAN. An NTP time server is required as a time emitter. Operating voltage: 230 VAC/50 Hz. | ■ uniform time indication<br>■ time adjustment fully automatic<br>■ time zone adjustable per clock at any time<br>■ second hand up to 400 mm diam. included |

**Operating modes**
functions and advantages

# *PEWETA DCFport24* Pulse Telegram

## ■ self-adjusting slave clocks
## ■ wire-based transmission of time data

***DCFport24***
**pulse telegram**
function and
advantages

Compared with conventional, "classic" slave clocks, PEWETA telegram-receiving slave clocks offer an advantage by not just being *advanced* by pulses but being *controlled* by time and date telegrams.

Time adjustment is fully automatic and independent of the current position of the hands. The time telegram (hour, minute, second, day, month, year) is transmitted by wire from a PEWETA Master Clock to the slave clocks.

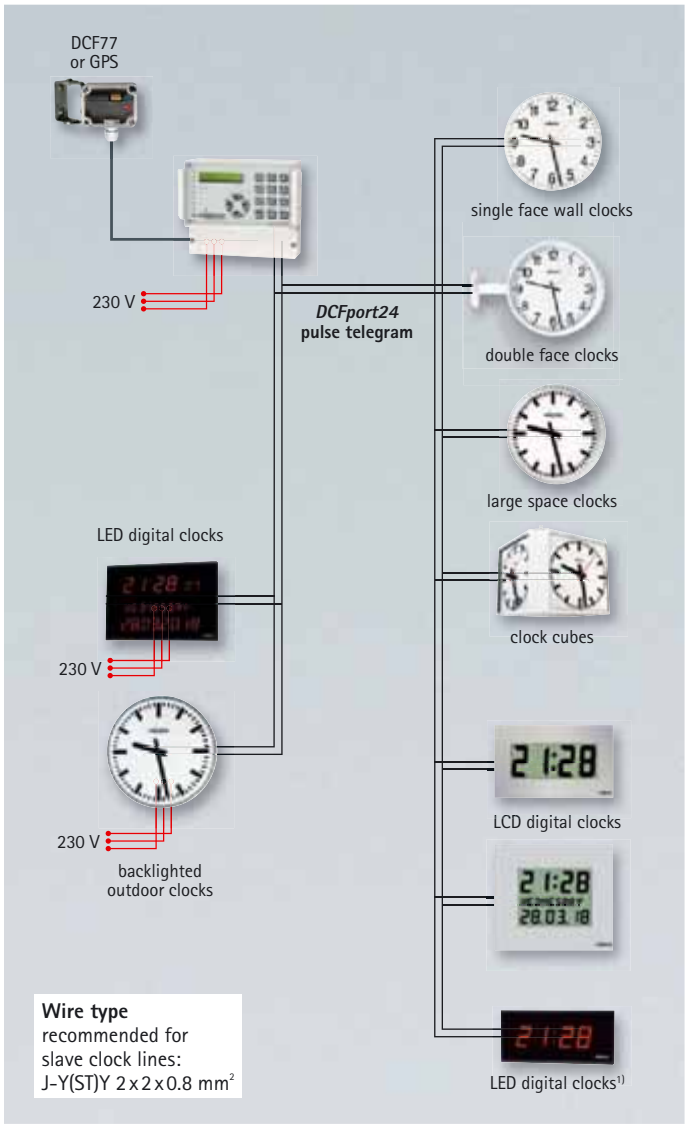
As standard, all analog *DCFport24* pulse telegram slave clocks up to 400 mm diameter are already provided with a second hand, so the accurate time will be displayed accurately to the second.

Immediately after receiving the time telegram, digital clocks with a *DCFport24* pulse telegram input will display the current time and, according to the model, the current date.

*DCFport24* pulse telegram slave clocks will fully automatically reset themselves to the accurate time after accidental disruptions, e. g. wire break, loss of mains power. This is of special benefit when installing and maintaining clock systems with large numbers of slave clocks, clocks with two or four faces, or clocks mounted in areas with difficult access, like in high halls or outdoors. Wire-based *PEWETA DCFport24* telegram slave clocks are also powered over the telegram transmitting line[1].

### Advantages

- simple, cost-effective "plug-and-play" installation
- rapid self-adjustment, no previous manual set-up necessary
- no need to pay attention to polarity
- existing slave clock wire networks may be re-used
- trouble-free expansion during operation without stopping the slave clock line(s).




| Comparison | | *DCFport24* pulse telegram slave clocks | Conventional minute pulse slave clocks |
|---|---|---|---|
| **operating mode** | | 24 V pulse telegram | 12/24/48/60 V minute pulse |
| **transmitting wire** | | 2-core wire, shielded | 2-core wire, shielded |
| **transmitted signal** | | complete date and time information | polarity alternating minute pulse |
| **time display on analog clocks** | up to 400 mm diameter | hour, minute and second hands | hour and minute hands |
| | over 400 mm diameter | hour and minute hands | hour and minute hands |
| **date display on digital clocks** | | date and time will be set automatically | must be manually pre-set before initiation |
| **initiation procedure** | | Slave clocks may be installed with random polarity, random position of hands and in any convenient sequence. Time display adjustment will be fully automatic. | All slave clocks must be connected with uniform polarity and manually pre-set to the planned initiation time. All clocks must be initiated simultaneously. |
| **after initiation** | | No after-initiation check is required. All clocks have automatically "slaved" to the master clock time display. | Each slave clock must be individually checked for correct polarity of connection. Any discrepancies of hand position must be manually corrected. |
| **additional clocks/lines** | | Additional clocks may be installed and connected in "plug-and-play" fashion at any time and will automatically adopt the master clock time display. | The line involved must be stopped. All newly installed clocks must be manually set to match existing clocks. |
| **after line disruptions** | | Each and every slave clock will automatically reset itself when the telegram circuit is restored. | The line involved must be stopped. Clocks lagging behind because of missed pulses must be manually reset. |

[1] If the clock system includes LED digital clocks, additional booster amplifiers may be required for power supply, dependent upon the number and the types of these clocks. As an alternative, a 230 V power supply is possible.

# *PEWETA AirPort24* Radio Telegram

- self-adjusting slave clocks
- wireless transmission of time data

Wherever a **wire-based** time system cannot be implemented and/or expanded and the use of standalone DCF77 radio controlled clocks is inappropriate due to poor reception conditions, **wireless** PEWETA *AirPort24* technology offers a professional solution.

## Function

An *AirPort24* radio telegram transmitter broadcasts complete time information (hours, minutes, seconds, date, and year) by radio (868..869 MHz) within a radius of cir. 250 m (indoors) and cir. 1,000 m (outdoors), respectively.

All *AirPort24* radio telegram slave clocks within this radius will be automatically adjusted to current time and date.

Operating power for *AirPort24* radio telegram slave clocks is supplied either by battery or by 230 VAC mains power.

## Synchronisation

*AirPort24* radio telegram transmitters are synchronised by one of these options

1. the *DCFport24* pulse telegram supplied by a PEWETA Master Clock
2. a PEWETA DCF77 receiving aerial
3. LAN (RJ45 NTP input).

## Expansion

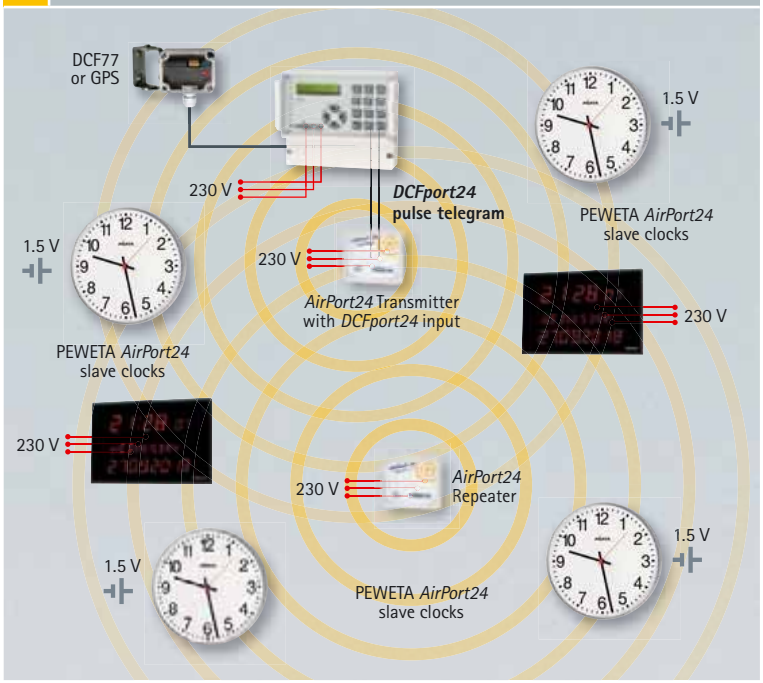
The range of the system may be expanded by the use of *AirPort24* radio telegram repeaters. These receive the PEWETA *AirPort24* time telegram from an *AirPort24* transmitter at the periphery of the propagation area and relay the time telegram within a further radius of cir. 250 m (indoors) or 1,000 m (outdoors) towards the radio telegram slave clocks.

PEWETA *AirPort24* radio technology is suited for a standalone, wireless time system as well as for the expansion of an existing conventional time system, whose wire network, for whatever reason, is not suited for subsequent expansion.

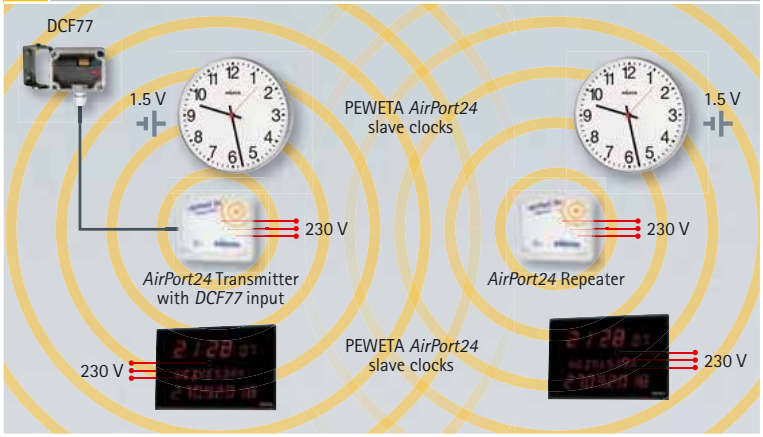
## Advantages

- transfer of the **complete time and date protocol**
- **safe transmission** within a radius of up to cir. 250 m (indoors) and up to cir. 1,000 m outdoors, respectively
- **unlimited number** of *AirPort24* radio telegram slave clocks within this range
- **expandable without limits** by repeaters (signal boosters)
- **simple, cost-effective and flexible installation**, no wiring necessary.

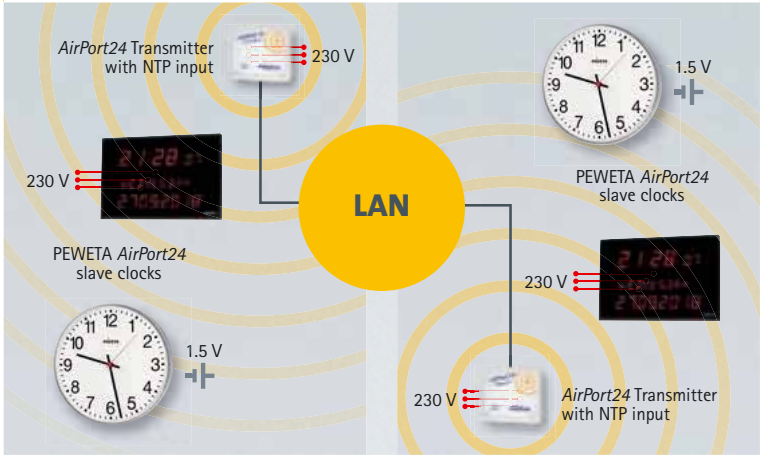
**1** **Diagram shows 1 *AirPort24* Transmitter with *DCFport24* input and 1 *AirPort24* Repeater**




**2** **Diagram shows 1 *AirPort24* Transmitter with DCF77 aerial and 1 *AirPort24* Repeater**




**3** **Diagram shows 2 *AirPort24* Transmitters with NTP input**



***AirPort24***
**radio telegram**
function and
advantages

# NTP – Time and Date in an IT Network

**NTP**
function and advantages

## Synchronising time in a network by NTP

Network Time Protocol (NTP) is a server/client protocol used to provide time and date synchronisation in IT networks. Local networks (LAN) in industry or public administration may use it as well as wide-ranging networks, e. g. the Internet. NTP is universally compatible. Originally developed for the UNIX Operating System, today it is synchronising all relevant Operating Systems, like Windows, Mac OS, Linux ...

Only in a time-synchronised network it is possible to correctly document data files at different states of processing and derive useful information from protocol entries. Nowadays, a precise time-base is absolutely essential in almost all applications and services.

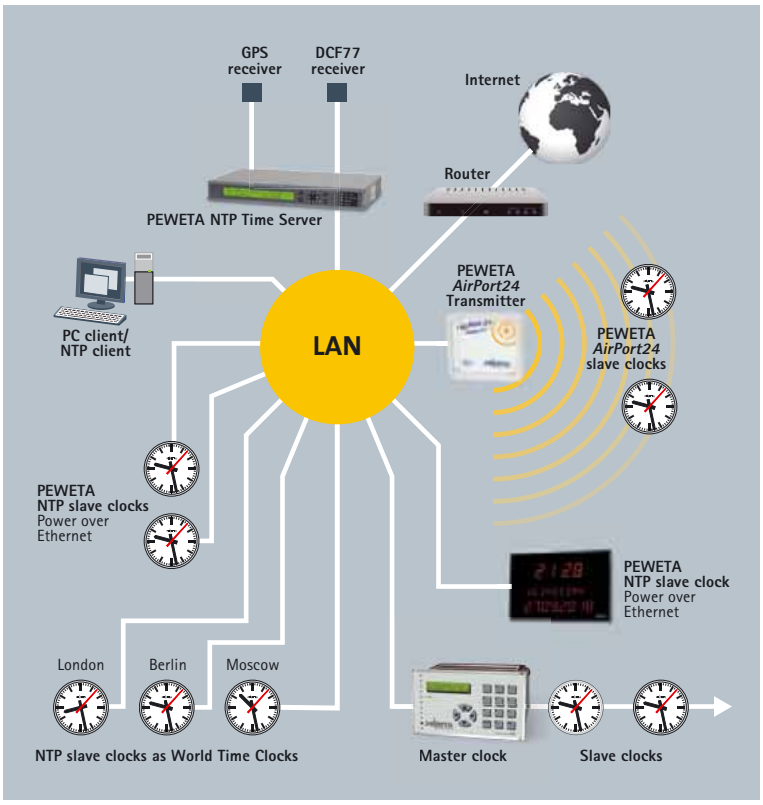
## NTP Time Server

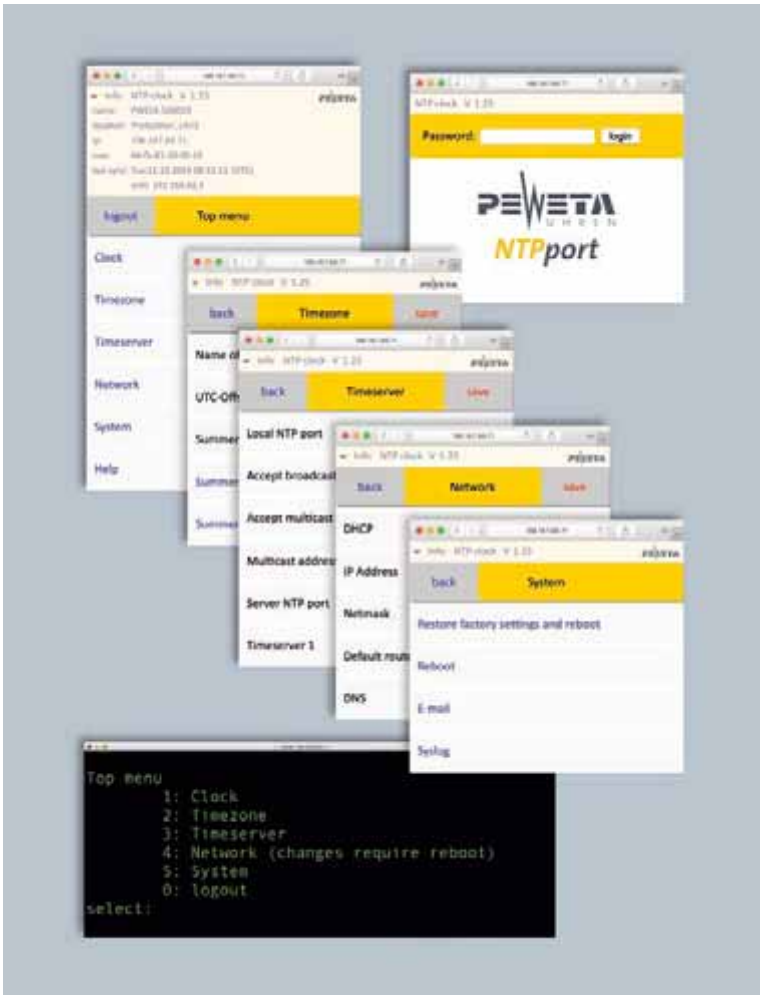
The PEWETA NTP Time Server (see page 191) offers this precise time-base, which provides time derived from a high level time standard (DCF77 or GPS receiver) to the IT infrastructure. This enables all so-called »clients« installed in the network, e. g. PCs, telephone systems, printers or clocks to be synchronised with this time-base.

PEWETA NTP Time Servers offer pinpoint accuracy even if DCF77 or GPS reception is down. Several NTP Time Servers can be clustered for redundancy to ensure accessibility within the network. Status messages or network and safety settings can easily be configured within a web based user interface.

## NTP slave clocks

PEWETA NTP slave clocks (SNTP clients) may receive the NTP protocol from a variety of NTP servers (provided by PEWETA or already installed) and adjust themselves, accurate to the second. Every NTP slave clock can be adjusted to access any other freely accessible NTP server on the internet instead of its home network's NTP server. If the network includes a DHCP server (protocol for automatic client configuration by a server) configured accordingly, setup will be carried out in a "plug-and-play" fashion. A web-based user interface makes changes in the setup a comfortable task to be carried out in an internet browser. PEWETA NTP slave clocks receive their power supply by PoE (Power over Ethernet), thus a single cable is sufficient for connection. If PoE is not available, an external source of power can be utilised. NTP provides UTC time (Universal Time Co-ordinated). Since every PEWETA NTP slave clock may be adjusted to the local time zone or any other time zone desired by the user, these clocks may be used world-wide or may be assembled into a World Time Display. PEWETA NTP slave clocks are easy to install and operate, and generally maintenance-free as well as energy efficient.



# ***PEWETA Data Bus RS485*** integrates LED digital clocks into a professional, flexible clock system. Down to the very second!

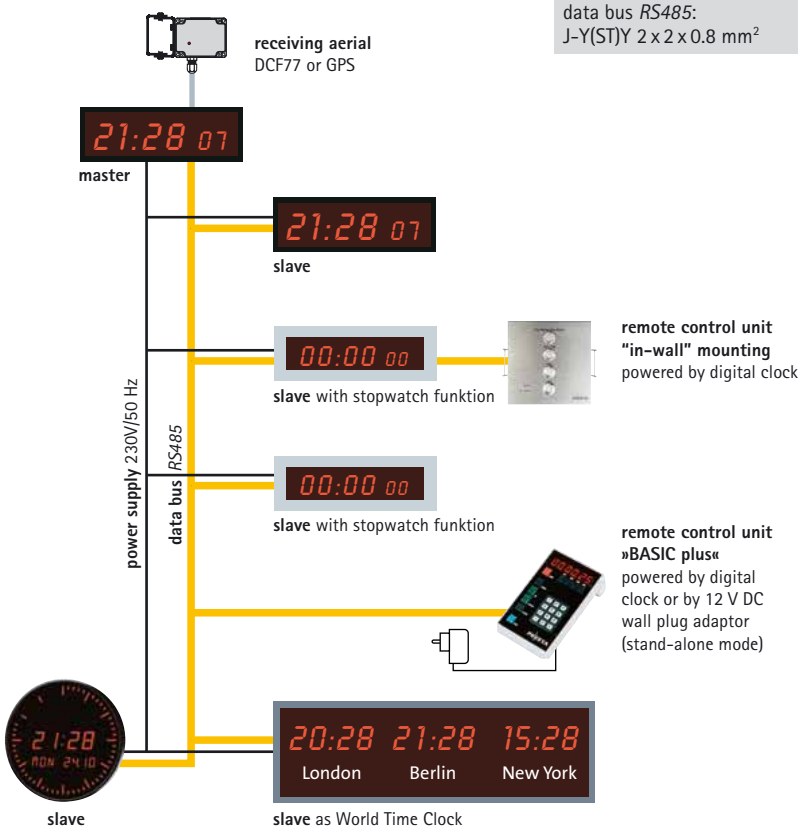
In addition to conventional synchronisation of digital clocks by a pulse or a telegram received from a master clock, PEWETA offers a specific time telegram for digital clocks: ***PEWETA data bus RS485.***

PEWETA LED digital clocks, type *data bus RS485 master* are capable of synchronising and controlling up to 32 other LED digital clocks/stopwatches, type *data bus RS485 slave*, through an interface.

Besides transmission of time and date, LED digital clocks with stopwatch mode can be specifically addressed and operated by one or multiple remote control units via *PEWETA data bus RS485*.

Typical areas for the use of this networking technology are **hospital operating theatres**, the "media environment" of **radio and television studios** as well as **situation centres and map rooms**, **World Time Clock Systems** or any other environment, where precise time and date information, transmitted professionally, must be accessed reliably.

**Configuration scheme** *PEWETA data bus RS485*



***Data bus RS485***
function and advantages

### *PEWETA data bus RS485*

*PEWETA data bus RS485* can be used to combine LED digital clocks into a network and thus build a sophisticated time system. Data are symmetrically transmitted via an *RS485* interface.

By means of *PEWETA data bus RS485*, up to 32 LED digital clocks can be combined into a high-performance network.

One of the LED digital clock will be fitted with a master clock function to serve as a *master*, while the other LED digital clocks will be configured as *slaves*.

Digital distribution of the entire time and date information is a safeguard for fast and continuous synchronisation.

Even in case of a disruption (line fault, etc.) of the *RS485* data bus, all LED digital clocks of the slave type continue to serve as fully adequate clocks with quartz-based operation.

After clearance of a line fault all *slaves* will automatically, within a few seconds, return to displaying current time and date.

### Stopwatch function

By means of wire-based remote control units every LED digital clock connected to the *PEWETA data bus RS485* can be turned into a stopwatch (option). *PEWETA data bus RS485* will safeguard count-up and count-down functions of all stopwatches integrated, synchronous down to the second. Since each LED digital clock integrated into the system can be addressed individually, the remote control unit can on one hand trigger several stopwatch displays simultaneously. These can also be located separately. On the other hand, several remote control units, e. g. located at different desks, can trigger the functions of a single stopwatch.

The respective settings favoured must be configured upon installation.

Additionally, the active »BASIC plus« remote control unit (see page 145) can address one or more selected slaves directly. The 6-digit LED display on the remote control unit can be used as an additional desk display and or to show start values entered.

### Advantages

- PEWETA LED digital clocks of *master* type serve as the master clock controlling the *slaves* connected but additionally display the usual time (and date). Thus, a standard master clock is not required for this clock system but can, however, be employed to synchronise the *master*.
- All PEWETA LED digital *slave* clocks will be set to current time and current date within seconds.
- Each PEWETA LED digital clock is available in a *PEWETA data bus RS485* version.

The LED digital *master* clock can be synchronised by one of these options:

- a **DCF77** or **GPS** receiving aerial
- **24 V minute pulses** from a PEWETA Master Clock
- ***DCFport24* pulse telegram** from a PEWETA Master Clock
- ***AirPort24* radio telegram** from a PEWETA *AirPort24* Transmitter
- LAN as an **NTP client**.

**Indoor**
analog · digital
single face

# Indoor Clocks

## analog · digital · single face

*Sensible, matter-of-fact clocks in an attractive, up-to-date design. In the office or the shop, the surgery or the lab, the reception area or the cafeteria, the conference room or the lounge – in all those places these clocks earn the term »outstandingly suitable«.*

# DCF77 Radio Controlled Wall Clock

Time, date, temperature – everything at a single glance. And the price is right, too.

### Case

■ Attractive, metallic silver coloured plastic case.
Protection grade IP 40 (EN 60 529).

### LCD digital display

Extra large numerals provide for optimum readability of hours, minutes, and seconds, as well as date, abbreviated day of week (8 languages), indoor temperature, and humidity.
Manual time zone selection.
1.5 V battery operation.

### DCF77

DCF77 radio controlled clock with fully automatic adjustment of time and date at initial operation as well as fully automatic change-over of summer/winter time.

51.**106**.093 shown

| Technical data | | |
|---|---|---|
| **Case** | colour | metallic silver |
| | material | plastic |
| | dimensions (W x H x D) | cir. 410 x 270 x 43 mm |
| **Display** | cipher height hour/minute | cir. 110 mm |
| | cipher height date, seconds, temperature | cir. 35 mm |
| | abbreviated day of week | cir. 35 mm |
| | reading distance (hour/minute) up to | cir. 20 m |
| **Weight** | | cir. 1.1 kg |
| **Batteries** | not included | 3 x 1.5 V (baby/LR14) |

| Type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**106**.093 | **139.–** |

**Indoor**
digital
single face

Type series
**106**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# DCF77 Radio Controlled Wall Clocks

**Indoor**
analog
single face

Type series
**115**

Sensible, matter-of-fact wall clocks in an attractive design. And the price is right, too.

### Case
■ cir. 300 mm diameter plastic case, choice of white or black. Protection grade IP 40 (EN 60 529).

### Front glass
Domed clear plastic.

### Face
White face with black Arabic numerals.

### Hands
Black bar-type hour and minute hands, red second hand.

51.**115**.311 shown

| Type | Colour | Item No. | € each |
|---|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | white | 51.**115**.311 | **50.–** |
| | black | 51.**115**.312 | **50.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

51.**115**.312



■ *All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks

Sensible, matter-of-fact wall clocks in an attractive design. And the price is right, too.

**Case**
- cir. 250 mm diameter
- cir. 300 mm diameter

plastic case, choice of white, black or matt silver.
Protection grade IP 40 (EN 60 529).

**Front glass**
Flat mineral glass.

**Face**
White face with black Arabic numerals or black DIN bar markings.

**Hands**
Black bar-type hour and minute hands, red second hand.

51.**130**.322 shown

| Type | Case diameter | Markings | Colour | Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock, soundless, battery operated 1.5 V | 250 mm | numerals | white | 44.**130**.211 | **29.–** |
| | | numerals | black | 44.**130**.212 | **29.–** |
| | | numerals | silver | 44.**130**.213 | **29.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 250 mm | numerals | white | 51.**130**.211 | **39.–** |
| | | numerals | black | 51.**130**.212 | **39.–** |
| | | numerals | silver | 51.**130**.213 | **39.–** |
| Quartz clock, soundless, battery operated 1.5 V | 300 mm | numerals | white | 44.**130**.311 | **39.–** |
| | | numerals | black | 44.**130**.312 | **39.–** |
| | | numerals | silver | 44.**130**.313 | **39.–** |
| | | DIN bars | black | 44.**130**.322 | **39.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 300 mm | numerals | white | 51.**130**.311 | **49.–** |
| | | numerals | black | 51.**130**.312 | **49.–** |
| | | numerals | silver | 51.**130**.313 | **49.–** |
| | | DIN bars | black | 51.**130**.322 | **49.–** |

**Quartz type**
- creeping second hand
- soundless clockwork

51.**130**.311

51.**130**.312

51.**130**.313

**Indoor**
analog
single face

Type series
**130**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

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# DCF77 Radio Controlled Wall Clocks
## with creeping second hand, soundless

**Indoor**
analog
single face

Type series
**131**

Large, state-of-the-art DCF77 radio controlled wall clocks in an attractive design.
Soundless clockwork.
No ticking.

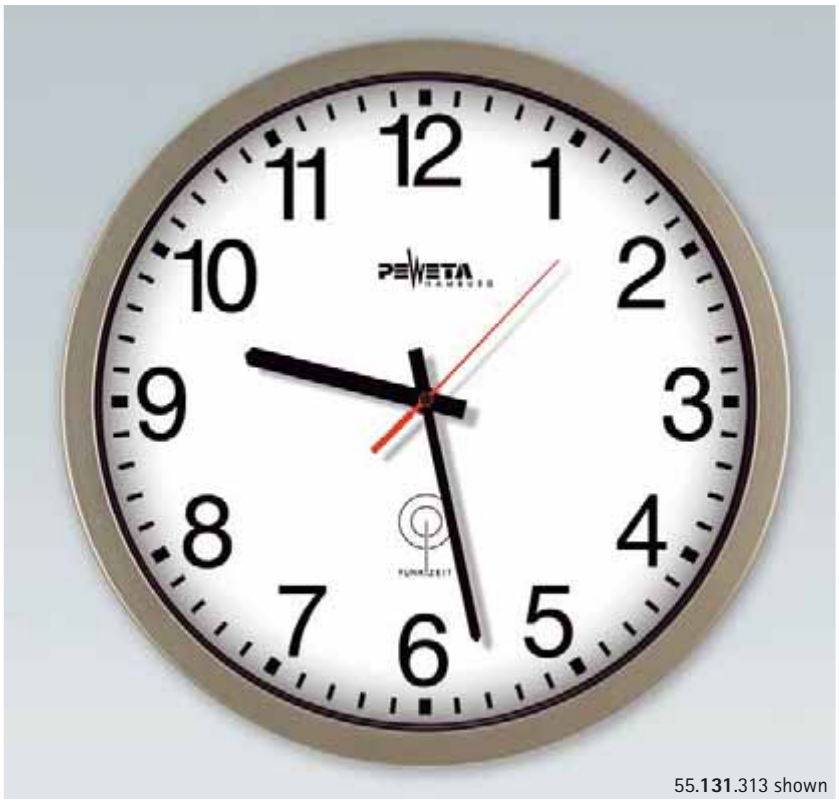
### Case
- cir. 350 mm diameter

plastic case, choice of white, black or matt silver.
Protection grade IP 40 (EN 60529).

### Front glass
Flat mineral glass.

### Face
White face with black numerals or black DIN bar markings.

### Hands
Black bar-type hour and minute hands, red second hand with creeping motion.



55.**131**.313 shown

| Type | Markings | Case colour | Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, soundless, battery operated 1.5 V | numerals | white | 55.**131**.311 | **69.–** |
| | numerals | matt silver | 55.**131**.313 | **69.–** |
| | DIN bars | black | 55.**131**.322 | **69.–** |

**All types**
- creeping second hand
- soundless clockwork

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

55.**131**.311

55.**131**.322



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# Wall Clocks

## with “Railway Station Clock“ style second hand

Attractive wall clock in a classy aluminium case with a distinctive “Railway Station Clock” style second hand.

**Case**
- cir. 300 mm diameter

metal case, aluminium, matt brushed. Protection grade IP 40 (EN 60 529).

**Front glass**
Flat mineral glass.

**Face**
Typical “Railway Station Clock” style face with black DIN bar markings.

**Hands**
Black bar-type hour and minute hands, typical “Railway Station Clock” style second hand with “eye”.

51.**150**.325 shown

| Type | Item No. | € each |
|---|---|---|
| Quartz clock, soundless, battery operated 1.5 V | 44.**150**.325 | **50.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**150**.325 | **65.–** |

**Quartz type**
- creeping second hand
- soundless clockwork

**Indoor**
analog
single face

Type series
**150**

**DCF77 radio controlled clocks**
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# DCF77 Radio Controlled Wall Clock

## with insert displays indicating temperature and humidity

**Indoor**
analog
single face

Type series
**161**

Sensible wall clock in an attractive design – indications of temperature and humidity included!

**Case**
■ cir. 300 mm diameter
metal case, aluminium, matt brushed.
Protection grade IP 40 (EN 60 529).

**Front glass**
Flat mineral glass.

**Face**
White face with black Arabic numerals, LCD display for weather trend, temperature, and humidity.

**Hands**
Black bar-type hour and minute hands, red second hand.

51.**161**.315 shown

| Type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**161**.315 | **69.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*



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# DCF77 Radio Controlled Wall Clocks
## with LCD date display

Highly functional wall clocks in an attractive design – outstandingly suited for environments where date and time must be instantly readable free of doubt.

**Case**
■ cir. 300 mm diameter
plastic case, choice of black or matt silver.
Protection grade IP 40 (EN 60 529).

**Front glass**
Domed clear plastic.

**Face**
White with black Arabic numerals, very easy-to-read LCD display showing abbreviated day of week (in German only), month and day.

**Hands**
Black bar-type hour and minute hands, red second hand.

51.**170**.313 shown

| Type | Colour | Item No. | € each |
|---|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | black | 51.**170**.312 | **59.–** |
| | silver | 51.**170**.313 | **59.–** |

**Indoor**
analog
single face

Type series
**170**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

51.**170**.312

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# DCF77 Radio Controlled Wall Clocks

**Indoor**
analog
single face

Type series
**190**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

Attractive, radio controlled wall clocks in an up-to-date design. One look tells you the time, accurate to the second.

### Case
- cir. 200 mm diameter
- cir. 250 mm diameter
- cir. 300 mm diameter
- cir. 350 mm diameter
- cir. 400 mm diameter

metal case, aluminium, matt brushed. Protection grade IP 40 (EN 60529).

### Front glass
Flat mineral glass.

### Face
White face with choice of black Arabic numerals or black bar markings.

### Hands
Black bar-type hour and minute hands, red second hand.

### Operation
1.5 V battery or 230 V mains operated.

51.**190**.215 shown

| Type | Case diameter | Markings | Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 200 mm | numerals | 51.**190**.205 | **49.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 250 mm | numerals | 51.**190**.215 | **59.–** |
| | | bars | 51.**190**.225 | **59.–** |
| DCF77 radio controlled clock, mains operated 230 V | 250 mm | numerals | 52.**190**.215 | **135.–** |
| | | bars | 52.**190**.225 | **135.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 300 mm | numerals | 51.**190**.305 | **65.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 350 mm | numerals | 51.**190**.315 | **79.–** |
| | | bars | 51.**190**.325 | **79.–** |
| DCF77 radio controlled clock, mains operated 230 V | 350 mm | numerals | 52.**190**.315 | **155.–** |
| | | bars | 52.**190**.325 | **155.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 400 mm | numerals | 51.**190**.405 | **85.–** |

51.**190**.225



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**Indoor**
analog,
single and
double faces

# Indoor Clocks

## analog · single and double faces

*Demanding environments require high quality clocks, instantly readable from any direction and clear enough to avoid error or doubt even at long distances.*

**That's all the time you need ...**

# Wall Clocks
## with **printed** bar markings

**Indoor**
analog
single face

Type series
**230**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

Distinctive clocks with high-contrast faces and high-grade stainless steel cases – black bar markings on silver anodised aluminium faces.

### Case
■ cir. 300 mm diameter stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) in a matted finish or metal case enamelled in colours (see list below). Protection grade IP 40 (EN 60 529).

### Front glass
Domed mineral glass as standard, shock-resistant Plexiglas® XT as an option.

### Packaging (Option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
Metal face, enamelled silver anodised aluminium with a radial brush finish, high contrast black bar type markings.

### Hands
Black bar-type hour and minute hands, black second hand.
No second hand on minute pulse 12... 60 V controlled slave clocks.

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Stainless steel V2A
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

41.**230**.341 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**230**.341 | **279.–** |
| Quartz clock, battery operated 1.5 V | 41.**230**.341 | **225.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**230**.341 | **266.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**230**.341 | **344.–** |
| Slave clock, minute pulse 12...60 V | 71.**230**.341 | **249.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**230**.341 | **454.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**230**.341 | **264.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**230**.341 | **362.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 V AC, with outage reserve | 85.**230**.341 | **422.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**230**.341 | **429.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Low reflectivity front glass | **-50** | **59.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** |
| Packaging against dust and spray (IP 54) | **-54** | **69.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.



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# Wall Clocks
## with **printed** bar markings

Distinctive clocks with high-contrast faces and high-grade stainless steel cases – silver bar markings on black aluminium faces.

### Case
■ cir. 300 mm diameter stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) in a matted finish or metal case enamelled in colours (see list below). Protection grade IP 40 (EN 60 529).

### Front glass
Domed mineral glass as standard, shock-resistant Plexiglas® XT as an option.

### Packaging (Option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
Metal face, enamelled black with high contrast silver anodised bar type markings.

### Hands
Silver bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12…60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Stainless steel V2A**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

41.**230**.301 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**230**.301 | **279.–** |
| Quartz clock, battery operated 1.5 V | 41.**230**.301 | **225.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**230**.301 | **266.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with power outage reserve | 52.**230**.301 | **344.–** |
| Slave clock, minute pulse 12...60 V | 71.**230**.301 | **249.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**230**.301 | **454.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**230**.301 | **264.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**230**.301 | **362.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 V AC, with outage reserve | 85.**230**.301 | **422.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [1] | 91.**230**.301 | **429.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Low reflectivity front glass | **-50** | **59.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** |
| Packaging against dust and spray (IP 54) | **-54** | **69.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

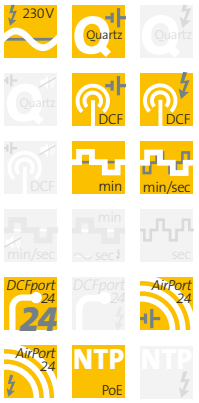
### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Indoor**
analog
single face

Type series
**230**




**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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# Wall Clocks
## with **elevated** bar markings

**Indoor**
analog
single face

Type series
**232**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

A wall clock of marked exclusivity – distinctive prominent bar markings lend an individual and unmistakable appearance to this clock. The domed front glass may be removed at the customer´s discretion to bring the prominent face structure to even better view.

### Case
■ cir. 400 mm diameter stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) in a matted finish or metal case enamelled in colours (see list below). Protection grade IP 40 (EN 60 529).

### Front glass
Domed shock-resistant Plexiglas® XT, may be removed at customer's discretion (resulting protection grade IP 30).

### Face
Metal, silver anodised with radial brush finish, prominent black bar-type markings.

### Hands
Black bar-type hour and minute hands, black second hand.
No second hand on minute pulse 12…60 V controlled slave clocks.

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Stainless steel V2A
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

41.**232**.441 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**232**.441 | **415.–** |
| Quartz clock, battery operated 1.5 V | 41.**232**.441 | **355.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**232**.441 | **398.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**232**.441 | **476.–** |
| Slave clock, minute pulse 12...60 V | 71.**232**.441 | **375.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**232**.441 | **580.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**232**.441 | **390.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**232**.441 | **488.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 V AC, with outage reserve | 85.**232**.441 | **548.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**232**.441 | **555.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Low reflectivity front glass | **-50** | **89.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.



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# Wall Clocks
## with **elevated** bar markings

A wall clock of marked exclusivity – distinctive prominent bar markings lend an individual and unmistakable appearance to this clock. The domed front glass may be removed at the customer´s discretion to bring the prominent face structure to even better view.

### Case
■ cir. 400 mm diameter stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) in a matted finish or metal case enamelled in colours (see list below). Protection grade IP 40 (EN 60 529).

### Front glass
Domed shock-resistant Plexiglas® XT, may be removed at customer's discretion (resulting protection grade IP 30).

### Face
Metal, enamelled black with silver anodised prominent bar-type markings.

### Hands
Silver bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12…60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Stainless steel V2A**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

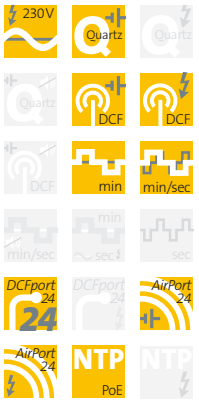
41.**232**.401 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**232**.401 | **415.–** |
| Quartz clock, battery operated 1.5 V | 41.**232**.401 | **355.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**232**.401 | **398.–** |
| DCF77 radio controlled clock, mains operated 230 VAC, with outage reserve | 52.**232**.401 | **476.–** |
| Slave clock, minute pulse 12...60 V | 71.**232**.401 | **375.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**232**.401 | **580.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**232**.401 | **390.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**232**.401 | **488.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 VAC, with outage reserve | 85.**232**.401 | **548.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | 91.**232**.401 | **555.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Low reflectivity front glass | **-50** | **89.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

**Indoor**
analog
single face

Type series
**232**




**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Wall Clocks
## single face

**Indoor**
analog
single face

Type series
**240**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

Sophisticated clocks for demanding environments – a professional means of showing the time.

### Case
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, as standard enamelled charcoal-metallic (dark gun metal, DB 703) or, as an option, enamelled in colours (see list below). As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

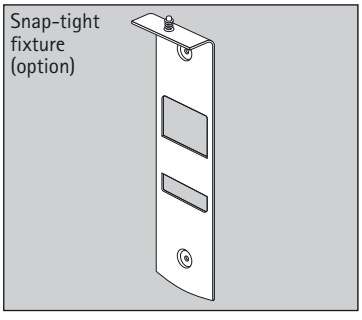
### Front glass
Domed mineral glass on 300 mm cases, shock-resistant Plexiglas® XT on 400 mm cases. As an option, low reflectivity front glass is available.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
Silver anodised with radial brush finish, black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, black second hand.
No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.



41.**240**.311 shown

| Clock type | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**240**.311 | **209.–** | 21.**240**.411 | **289.–** |
| Quartz clock, battery operated 1.5 V | 41.**240**.311 | **155.–** | 41.**240**.411 | **229.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**240**.311 | **196.–** | 51.**240**.411 | **272.–** |
| DCF77 radio controlled clock, mains operated 230 VAC, with outage reserve | 52.**240**.311 | **274.–** | 52.**240**.411 | **350.–** |
| Slave clock, minute pulse 12...60 V | 71.**240**.311 | **179.–** | 71.**240**.411 | **249.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**240**.311 | **384.–** | 72.**240**.411 | **454.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**240**.311 | **194.–** | 81.**240**.411 | **264.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**240**.311 | **292.–** | 84.**240**.411 | **362.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 VAC, with outage reserve | 85.**240**.311 | **352.–** | 85.**240**.411 | **422.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | 91.**240**.311 | **359.–** | 91.**240**.411 | **429.–** |

| Options | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** | **Suffix** | **€ each** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** | **-05** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **79.–** | **-20** | **99.–** |
| Low reflectivity front glass | **-50** | **59.–** | **-50** | **89.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** | | **fitted as standard** |
| Packaging against dust and spray (IP 54) | **-54** | **69.–** | **-54** | **69.–** |
| Snap-tight mounting fixture | **-57** | **49.–** | **-57** | **49.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** |

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

◀ This Snap-tight fixture (option -57) prevents the clock from dropping or being wrenched off. Screw fixture to the wall, attach clock – done!

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| custom enamelled | **-10** |
| stainless steel V2A | **-20** |



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# Wall Clocks
## single face

Sophisticated clocks for demanding environments – a professional means of showing the time.

### Case
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, as standard enamelled charcoal-metallic (dark gun metal, DB 703) or, as an option, enamelled in colours (see list below). As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass
Domed mineral glass on 300 mm cases, shock-resistant Plexiglas® XT on 400 mm cases. As an option, low reflectivity front glass is available.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

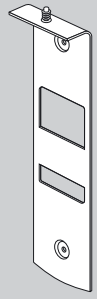
### Face
Silver anodised with radial brush finish, black fine-line markings. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, black second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

Snap-tight fixture (option)



41.**240**.331 shown

| Clock type | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**240**.331 | **209.–** | 21.**240**.431 | **289.–** |
| Quartz clock, battery operated 1.5 V | 41.**240**.331 | **155.–** | 41.**240**.431 | **229.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**240**.331 | **196.–** | 51.**240**.431 | **272.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**240**.331 | **274.–** | 52.**240**.431 | **350.–** |
| Slave clock, minute pulse 12...60 V | 71.**240**.331 | **179.–** | 71.**240**.431 | **249.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**240**.331 | **384.–** | 72.**240**.431 | **454.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**240**.331 | **194.–** | 81.**240**.431 | **264.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**240**.331 | **292.–** | 84.**240**.431 | **362.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 V AC, with outage reserve | 85.**240**.331 | **352.–** | 85.**240**.431 | **422.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**240**.331 | **359.–** | 91.**240**.431 | **429.–** |

| Options | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | none | **-01** | none |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | none | **-05** | none |
| Case custom enamelled | **-10** | on request | **-10** | on request |
| Case stainless steel V2A, matted finish | **-20** | **79.–** | **-20** | **99.–** |
| Low reflectivity front glass | **-50** | **59.–** | **-50** | **89.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** | | fitted as standard |
| Packaging against dust and spray (IP 54) | **-54** | **69.–** | **-54** | **69.–** |
| Snap-tight mounting fixture | **-57** | **49.–** | **-57** | **49.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** |

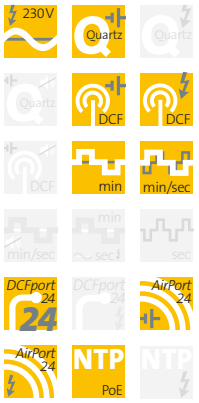
[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

◀ This Snap-tight fixture (option -57) prevents the clock from dropping or being wrenched off. Screw fixture to the wall, attach clock – done!

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| ? custom enamelled | **-10** |
| stainless steel V2A | **-20** |

**Indoor**
analog
single face

Type series
**240**




**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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# Wall Clocks

**Indoor**
analog
single face

Type series
**246**

Elegant clocks, combining faces with Roman numerals and tapered hands with state-of-the-art clockwork technology.

### Case
■ cir. 300 mm diameter
very sturdy metal case, as standard enamelled white (RAL 9016) or, as an option, enamelled in colours (see list below).
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass
Domed mineral glass as standard, shock-resistant Plexiglas® XT as an option.

### Face
Metal, enamelled white with black Roman numerals.

### Hands
Tapered black hour and minute hands, no second hand.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

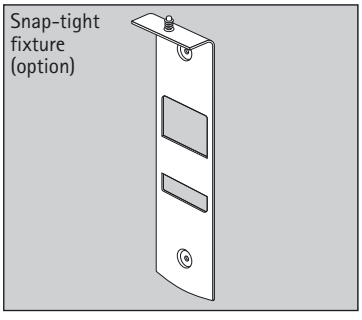
**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!



71.**246**.311 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**246**.311 | **209.–** |
| Quartz clock, battery operated 1.5 V | 41.**246**.311 | **155.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**246**.311 | **196.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**246**.311 | **274.–** |
| Slave clock, minute pulse 12...60 V | 71.**246**.311 | **179.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**246**.311 | **194.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**246**.311 | **292.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 V AC, with outage reserve | 85.**246**.311 | **352.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**246**.311 | **359.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **79.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** |
| Snap-tight mounting fixture | **-57** | **49.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

| Case colour | Suffix |
|---|---|
| jet black RAL 9005 | **-01** |
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V2A | **-20** |

◀ This Snap-tight fixture (option -57) prevents the clock from dropping or being wrenched off. Screw fixture to the wall, attach clock – done!



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# Wall Clocks

Highly presentable clocks for demanding environments – a professional means of showing the time.

### Case

■ cir. 300 mm diameter
very sturdy metal case, as standard enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in colours (see list below).
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)

As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass

Domed mineral glass as standard, shock-resistant Plexiglas® XT as an option.

### Packaging (option)

As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face

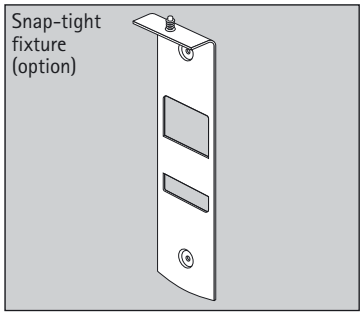
Metal, enamelled white with extra large, distinct black Arabic numerals for easy, doubt-free reading even over longer distances.

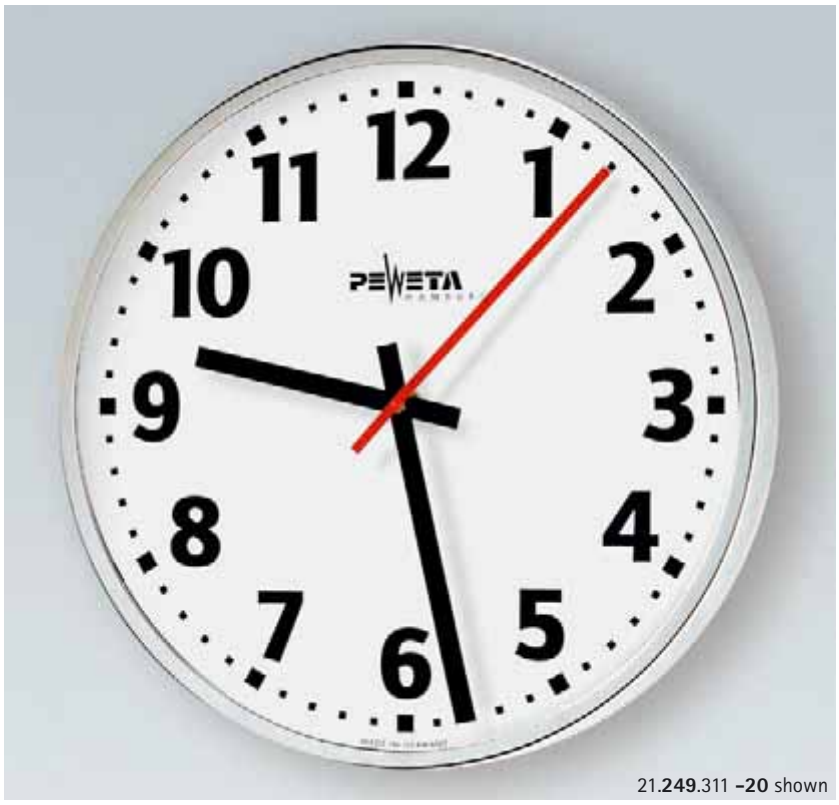
### Hands:

Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.




21.**249**.311 **-20** shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**249**.311 | **189.–** |
| Quartz clock, battery operated 1.5 V | 41.**249**.311 | **135.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**249**.311 | **176.–** |
| DCF77 radio controlled clock, mains operated 230 VAC, with outage reserve | 52.**249**.311 | **254.–** |
| Slave clock, minute pulse 12...60 V | 71.**249**.311 | **159.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**249**.311 | **364.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**249**.311 | **509.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**249**.311 | **174.–** |
| Slave clock, *AirPort24* RC telegram, battery operated 1.5 V | 84.**249**.311 | **272.–** |
| Slave clock, *AirPort24* RC telegram, mains operated 230 VAC, with outage reserve | 85.**249**.311 | **332.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [1] | 91.**249**.311 | **339.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in traffic white RAL 9016 | **-00** | **none** |
| Case enamelled in jet black RAL 9005 | **-01** | **none** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **79.–** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **58.–** |
| Packaging against dust and spray (IP 54) | **-54** | **69.–** |
| Snap-tight mounting fixture | **-57** | **49.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** |

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

◀ This Snap-tight fixture (option -57) prevents the clock from dropping or being wrenched off. Screw fixture to the wall, attach clock – done!

| Case colour | Suffix |
|---|---|
| traffic white RAL 9016 | **-00** |
| jet black RAL 9005 | **-01** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V2A | **-20** |

**Indoor**
analog
single face

Type series
**249**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

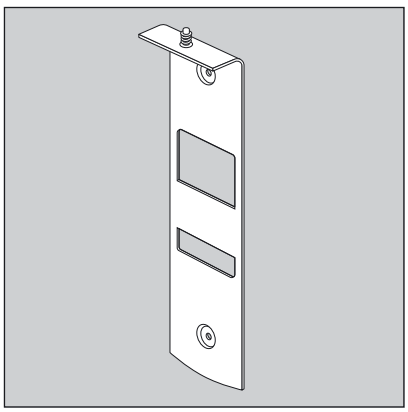
# Wall Clocks
## single face

**Indoor**
analog
single face

Type series
**250**

81.**250**.311 shown

Highly presentable clocks for demanding environments – a professional means of showing the time.



This Snap-tight fixture (option -57) prevents the clock from dropping or being wrenched off. Screw fixture to the wall, attach clock – done!

### Case
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, as standard enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in colours (see list below).
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass
Domed mineral glass on 300 mm case, shock-resistant Plexiglas® XT on 400 mm case as standard. As an option, low reflectivity front glass is available.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.
No second hand on minute pulse 12...60 V controlled slave clocks.

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
single face

Type series
**250**

| Clock type | face diameter ▶ 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.250.311 | 189.– | 21.250.411 | 259.– |
| Quartz clock, battery operated 1.5 V | 41.250.311 | 135.– | 41.250.411 | 199.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.250.311 | 176.– | 51.250.411 | 242.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.250.311 | 254.– | 52.250.411 | 320.– |
| Slave clock, minute pulse 12...60 V | 71.250.311 | 159.– | 71.250.411 | 219.– |
| Slave clock, minute/second pulse 12/24 V | 72.250.311 | 364.– | 72.250.411 | 424.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.250.311 | 509.– | 73.250.411 | 569.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.250.311 | 549.– | 74.250.411 | 609.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.250.311 | 524.– | 75.250.411 | 584.– |
| Slave clock, *DCFport24* pulse telegram | 81.250.311 | 174.– | 81.250.411 | 234.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V | 84.250.311 | 272.– | 84.250.411 | 332.– |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 V AC, with outage reserve | 85.250.311 | 332.– | 85.250.411 | 392.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.250.311 | 339.– | 91.250.411 | 399.– |

| Options | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|
| Case enamelled in traffic white RAL 9016 | -00 | none | -00 | none |
| Case enamelled in jet black RAL 9005 | -01 | none | -01 | none |
| Case enamelled in metallic dark gun metal DB 703 | -06 | none | -06 | none |
| Case custom enamelled | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 79.– | -20 | 99.– |
| Low reflectivity front glass | -50 | 59.– | -50 | 89.– |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | -53 | 58.– | fitted as standard | |
| Packaging against dust and spray (IP 54) | -54 | 69.– | -54 | 69.– |
| Snap-tight mounting fixture | -57 | 49.– | -57 | 49.– |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| traffic white RAL 9016 | -00 |
| jet black RAL 9005 | -01 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks
## single face

**Indoor**
analog
single face

Type series
**250**

21.**250**.321 shown

Highly presentable clocks for demanding environments – a professional means of showing the time.

74.**250**.321 **-40**

Optionally available with red "Railway Station Clock" style second hand

### Case
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, as standard enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in colours (see list below).
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass
Domed mineral glass on 300 mm case, shock-resistant Plexiglas® XT on 400 mm case as standard. As an option, low reflectivity front glass is available.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand. On synchronous clocks 230 V AC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.
No second hand on minute pulse 12...60 V controlled slave clocks.

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

**Indoor**
analog
single face

Type series
**250**

| Clock type (face diameter ▶) | 300 mm Item No. | 300 mm € each | 400 mm Item No. | 400 mm € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.250.321 | 189.– | 21.250.421 | 259.– |
| Quartz clock, battery operated 1.5 V | 41.250.321 | 135.– | 41.250.421 | 199.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.250.321 | 176.– | 51.250.421 | 242.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.250.321 | 254.– | 52.250.421 | 320.– |
| Slave clock, minute pulse 12...60 V | 71.250.321 | 159.– | 71.250.421 | 219.– |
| Slave clock, minute/second pulse 12/24 V | 72.250.321 | 364.– | 72.250.421 | 424.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.250.321 | 509.– | 73.250.421 | 569.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.250.321 | 549.– | 74.250.421 | 609.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.250.321 | 524.– | 75.250.421 | 584.– |
| Slave clock, *DCFport24* pulse telegram | 81.250.321 | 174.– | 81.250.421 | 234.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V | 84.250.321 | 272.– | 84.250.421 | 332.– |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 V AC, with outage reserve | 85.250.321 | 332.– | 85.250.421 | 392.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.250.321 | 339.– | 91.250.421 | 399.– |

| Options | 300 mm Suffix | 300 mm Surcharge € each | 400 mm Suffix | 400 mm Surcharge € each |
|---|---|---|---|---|
| Case enamelled in traffic white RAL 9016 | -00 | none | -00 | none |
| Case enamelled in jet black RAL 9005 | -01 | none | -01 | none |
| Case enamelled in metallic dark gun metal DB 703 | -06 | none | -06 | none |
| Case custom enamelled | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 79.– | -20 | 99.– |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **74**.xxx, and **74**.xxx only) | -40 | on request | -40 | on request |
| Low reflectivity front glass | -50 | 59.– | -50 | 89.– |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | -53 | 58.– | fitted as standard | |
| Packaging against dust and spray (IP 54) | -54 | 69.– | -54 | 69.– |
| Snap-tight mounting fixture | -57 | 49.– | -57 | 49.– |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| traffic white RAL 9016 | -00 |
| jet black RAL 9005 | -01 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks
## single face

**Indoor**
analog
single face

Type series
**250**

51.**250**.331 shown

Highly presentable clocks for demanding environments – a professional means of showing the time.

Optionally available with case enamelled in colours

### Case
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, as standard enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in colours (see list below).
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Snap-tight fixture (option)
As an option, these clocks are available with an additional mounting fixture to prohibit dropping or wrenching off.

### Front glass
Domed mineral glass on 300 mm case, shock-resistant Plexiglas® XT on 400 mm case as standard. As an option, low reflectivity front glass is available.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.
No second hand on minute pulse 12...60 V controlled slave clocks.

### Power outage reserve
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

| Clock type ◀ face diameter | 300 mm Item No. | 300 mm € each | 400 mm Item No. | 400 mm € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.250.331 | 189.– | 21.250.431 | 259.– |
| Quartz clock, battery operated 1.5 V | 41.250.331 | 135.– | 41.250.431 | 199.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.250.331 | 176.– | 51.250.431 | 242.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.250.331 | 254.– | 52.250.431 | 320.– |
| Slave clock, minute pulse 12...60 V | 71.250.331 | 159.– | 71.250.431 | 219.– |
| Slave clock, minute/second pulse 12/24 V | 72.250.331 | 364.– | 72.250.431 | 424.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.250.331 | 509.– | 73.250.431 | 569.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.250.331 | 549.– | 74.250.431 | 609.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.250.331 | 524.– | 75.250.431 | 584.– |
| Slave clock, *DCFport24* pulse telegram | 81.250.331 | 174.– | 81.250.431 | 234.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V | 84.250.331 | 272.– | 84.250.431 | 332.– |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 V AC, with outage reserve | 85.250.331 | 332.– | 85.250.431 | 392.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.250.331 | 339.– | 91.250.431 | 399.– |

| Options | 300 mm Suffix | 300 mm Surcharge € each | 400 mm Suffix | 400 mm Surcharge € each |
|---|---|---|---|---|
| Case enamelled in traffic white RAL 9016 | -00 | none | -00 | none |
| Case enamelled in jet black RAL 9005 | -01 | none | -01 | none |
| Case enamelled in metallic dark gun metal DB 703 | -06 | none | -06 | none |
| Case custom enamelled | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 79.– | -20 | 99.– |
| Low reflectivity front glass | -50 | 59.– | -50 | 89.– |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | -53 | 58.– | fitted as standard | |
| Packaging against dust and spray (IP 54) | -54 | 69.– | -54 | 69.– |
| Snap-tight mounting fixture | -57 | 49.– | -57 | 49.– |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| traffic white RAL 9016 | -00 |
| jet black RAL 9005 | -01 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Indoor
analog
single face

Type series
**250**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks
## single face

**Indoor**
analog
single face

Type series
**260**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

Sensible, matter-of-fact clocks in a trendy design. Unambiguous, functional, up-to-date.

### Case
■ cir. 290 mm diameter shock-resistant plastic, grey (close to RAL 7035).
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant clear plastic.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.
No second hand on minute pulse 12...60 V controlled slave clocks.

41.**260**.211 shown

| Clock type | Item No. | € each |
|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**260**.211 | not available |
| Quartz clock, battery operated 1.5 V | 41.**260**.211 | not available |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**260**.211 | not available |
| DCF77 radio controlled clock, mains operated 230 VAC, with outage reserve | 52.**260**.211 | not available |
| Slave clock, minute pulse 12...60 V | 71.**260**.211 | not available |
| Slave clock, minute/second pulse 12/24 V | 72.**260**.211 | not available |
| Slave clock, *DCFport24* pulse telegram | 81.**260**.211 | not available |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V | 84.**260**.211 | not available |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC, with outage reserve | 85.**260**.211 | not available |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**260**.211 | not available |

| Option | Suffix | Surcharge € each |
|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | **-60** | not available |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.



■ *All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks
## single face

Sensible, matter-of-fact clocks in a trendy design. Unambiguous, functional, up-to-date.

**Case**
■ cir. 290 mm diameter shock-resistant plastic, grey (close to RAL 7035).
Protection grade IP 40 (EN 60 529).

**Front glass**
Shock-resistant clear plastic.

**Face**
High distinction white metal with black DIN bar or fine-line markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

**Hands**
Black bar-type hour and minute hands, red second hand.
No second hand on minute pulse 12...60 V controlled slave clocks.

21.**260**.221 shown

| Clock type | Bar markings Item No. | € each | Fine line markings Item No. | € each |
|---|---|---|---|---|
| Synchronous clock, mains op. 230 V AC/50 Hz | 21.**260**.221 | not available | 21.**260**.231 | not available |
| Quartz clock, battery operated 1.5 V | 41.**260**.221 | not available | 41.**260**.231 | not available |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**260**.221 | not available | 51.**260**.231 | not available |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**260**.221 | not available | 52.**260**.231 | not available |
| Slave clock, minute pulse 12...60 V | 71.**260**.221 | not available | 71.**260**.231 | not available |
| Slave clock, minute/second pulse 12/24 V | 72.**260**.221 | not available | 72.**260**.231 | not available |
| Slave clock, *DCFport24* pulse telegram | 81.**260**.221 | not available | 81.**260**.231 | not available |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V | 84.**260**.221 | not available | 84.**260**.231 | not available |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 V AC, with outage reserve | 85.**260**.221 | not available | 85.**260**.231 | not available |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**260**.221 | not available | 91.**260**.231 | not available |

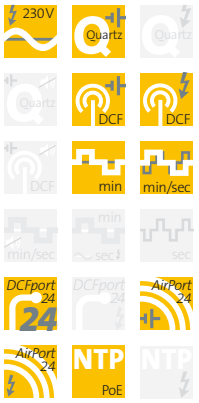
| Option | Suffix | Surcharge € each | Suffix | Surcharge € each |
|---|---|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | **-60** | not available | **-60** | not available |

41.**260**.231

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Indoor**
analog
single face

Type series
**260**




**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**270**

41.**270**.311 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

71.**270**.311

Slave clock, minute pulse 12...60 V

### Case
- cir. 265 mm diameter
- cir. 315 mm diameter
- cir. 415 mm diameter

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| face diameter ▶ / Clock type | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.270.211 | 134.– | 21.270.311 | 144.– | 21.270.411 | 169.– |
| Quartz clock, battery operated 1.5 V | 41.270.211 | 89.– | 41.270.311 | 99.– | 41.270.411 | 125.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.270.211 | 146.– | 51.270.311 | 156.– | 51.270.411 | 198.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.270.211 | 224.– | 52.270.311 | 234.– | 52.270.411 | 276.– |
| Slave clock, minute pulse 12...60 V | 71.270.211 | 109.– | 71.270.311 | 119.– | 71.270.411 | 139.– |
| Slave clock, minute/second pulse 12/24 V | 72.270.211 | 314.– | 72.270.311 | 324.– | 72.270.411 | 344.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.270.211 | 459.– | 73.270.311 | 469.– | 73.270.411 | 489.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.270.211 | 499.– | 74.270.311 | 509.– | 74.270.411 | 529.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.270.211 | 474.– | 75.270.311 | 484.– | 75.270.411 | 504.– |
| Slave clock, *DCFport24* pulse telegram | 81.270.211 | 123.– | 81.270.311 | 133.– | 81.270.411 | 154.– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.270.211 | 221.– | 84.270.311 | 231.– | 84.270.411 | 252.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.270.211 | 281.– | 85.270.311 | 291.– | 85.270.411 | 312.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.270.211 | 288.– | 91.270.311 | 298.– | 91.270.411 | 319.– |

| Option | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

## Indoor
analog
single face

Type series
**270**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**270**

71.**270**.321 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

21.**270**.321 **–40**

Optionally available with red "Railway Station Clock" style second hand

### Case
- cir. 265 mm diameter
- cir. 315 mm diameter
- cir. 415 mm diameter

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand. On synchronous clocks 230 VAC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.
No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 VAC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type (face diameter ▶) | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**270**.221 | **134.–** | 21.**270**.321 | **144.–** | 21.**270**.421 | **169.–** |
| Quartz clock, battery operated 1.5 V | 41.**270**.221 | **89.–** | 41.**270**.321 | **99.–** | 41.**270**.421 | **125.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**270**.221 | **146.–** | 51.**270**.321 | **156.–** | 51.**270**.421 | **198.–** |
| DCF77 radio controlled clock, mains operated 230 VAC, with outage reserve | 52.**270**.221 | **224.–** | 52.**270**.321 | **234.–** | 52.**270**.421 | **276.–** |
| Slave clock, minute pulse 12...60 V | 71.**270**.221 | **109.–** | 71.**270**.321 | **119.–** | 71.**270**.421 | **139.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**270**.221 | **314.–** | 72.**270**.321 | **324.–** | 72.**270**.421 | **344.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**270**.221 | **459.–** | 73.**270**.321 | **469.–** | 73.**270**.421 | **489.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**270**.221 | **499.–** | 74.**270**.321 | **509.–** | 74.**270**.421 | **529.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**270**.221 | **474.–** | 75.**270**.321 | **484.–** | 75.**270**.421 | **504.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**270**.221 | **123.–** | 81.**270**.321 | **133.–** | 81.**270**.421 | **154.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**270**.221 | **221.–** | 84.**270**.321 | **231.–** | 84.**270**.421 | **252.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC, with outage reserve | 85.**270**.221 | **281.–** | 85.**270**.321 | **291.–** | 85.**270**.421 | **312.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**270**.221 | **288.–** | 91.**270**.321 | **298.–** | 91.**270**.421 | **319.–** |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**Indoor**
analog
single face

Type series
**270**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**270**

51.**270**.331 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

71.**270**.331

Slave clock, minute pulse 12...60 V

### Case
- cir. 265 mm diameter
- cir. 315 mm diameter
- cir. 415 mm diameter

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| face diameter ▶ / Clock type | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.270.231 | 134.– | 21.270.331 | 144.– | 21.270.431 | 169.– |
| Quartz clock, battery operated 1.5 V | 41.270.231 | 89.– | 41.270.331 | 99.– | 41.270.431 | 125.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.270.231 | 146.– | 51.270.331 | 156.– | 51.270.431 | 198.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.270.231 | 224.– | 52.270.331 | 234.– | 52.270.431 | 276.– |
| Slave clock, minute pulse 12...60 V | 71.270.231 | 109.– | 71.270.331 | 119.– | 71.270.431 | 139.– |
| Slave clock, minute/second pulse 12/24 V | 72.270.231 | 314.– | 72.270.331 | 324.– | 72.270.431 | 344.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.270.231 | 459.– | 73.270.331 | 469.– | 73.270.431 | 489.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.270.231 | 499.– | 74.270.331 | 509.– | 74.270.431 | 529.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.270.231 | 474.– | 75.270.331 | 484.– | 75.270.431 | 504.– |
| Slave clock, *DCFport24* pulse telegram | 81.270.231 | 123.– | 81.270.331 | 133.– | 81.270.431 | 154.– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.270.231 | 221.– | 84.270.331 | 231.– | 84.270.431 | 252.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.270.231 | 281.– | 85.270.331 | 291.– | 85.270.431 | 312.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.270.231 | 288.– | 91.270.331 | 298.– | 91.270.431 | 319.– |

| Option | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Indoor
analog
single face

Type series
**270**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**271**

51.**271**.311 shown

Wall clocks with sturdy **metal cases.** State-of-the-art, up-to-date, functional – totally reliable!

71.**271**.311

Slave clock, minute pulse 12...60 V

### Case
- cir. 265 mm diameter
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT on 265 mm diameter cases, domed mineral glass on 300 mm diameter cases and shock-resistant Plexiglas® XT on 400 mm cases.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type ◀ face diameter | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.271.211 | 177.– | 21.271.311 | 179.– | 21.271.411 | 249.– |
| Quartz clock, battery operated 1.5 V | 41.271.211 | 123.– | 41.271.311 | 125.– | 41.271.411 | 189,– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.271.211 | 164.– | 51.271.311 | 166.– | 51.271.411 | 232.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.271.211 | 242.– | 52.271.311 | 244.– | 52.271.411 | 310.– |
| Slave clock, minute pulse 12...60 V | 71.271.211 | 147.– | 71.271.311 | 149.– | 71.271.411 | 209.– |
| Slave clock, minute/second pulse 12/24 V | 72.271.211 | 352.– | 72.271.311 | 354.– | 72.271.411 | 414,– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.271.211 | 497.– | 73.271.311 | 499.– | 73.271.411 | 559,– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.271.211 | 537.– | 74.271.311 | 539.– | 74.271.411 | 599,– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.271.211 | 512.– | 75.271.311 | 514.– | 75.271.411 | 574.– |
| Slave clock, *DCFport24* pulse telegram | 81.271.211 | 162.– | 81.271.311 | 164.– | 81.271.411 | 224,– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.271.211 | 260.– | 84.271.311 | 262.– | 84.271.411 | 322,– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.271.211 | 320.– | 85.271.311 | 322.– | 85.271.411 | 382.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.271.211 | 327.– | 91.271.311 | 329.– | 91.271.411 | 389.– |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 10.– | -05 | 10.– | -05 | 10.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 10.– | -06 | 10.– | -06 | 10.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | | fitted as standard | -53 | 58.– | | fitted as standard |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |

**Indoor**
analog
single face

Type series
**271**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**271**

71.**271**.321 shown

Wall clocks with sturdy **metal cases.** State-of-the-art, up-to-date, functional – totally reliable!

21.**271**.321 **–40**

Optionally available with red "Railway Station Clock" style second hand

### Case
- cir. 265 mm diameter
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT on 265 mm diameter cases, domed mineral glass on 300 mm diameter cases and shock-resistant Plexiglas® XT on 400 mm cases.

### Face
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand. On synchronous clocks 230 V AC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.
No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

## Indoor
analog
single face

Type series **271**

| Clock type | face diameter ▶ 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**271**.221 | **177.–** | 21.**271**.321 | **179.–** | 21.**271**.421 | **249.–** |
| Quartz clock, battery operated 1.5 V | 41.**271**.221 | **123.–** | 41.**271**.321 | **125.–** | 41.**271**.421 | **189.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**271**.221 | **164.–** | 51.**271**.321 | **166.–** | 51.**271**.421 | **232.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**271**.221 | **242.–** | 52.**271**.321 | **244.–** | 52.**271**.421 | **310.–** |
| Slave clock, minute pulse 12...60 V | 71.**271**.221 | **147.–** | 71.**271**.321 | **149.–** | 71.**271**.421 | **209.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**271**.221 | **352.–** | 72.**271**.321 | **354.–** | 72.**271**.421 | **414.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**271**.221 | **497.–** | 73.**271**.321 | **499.–** | 73.**271**.421 | **559.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**271**.221 | **537.–** | 74.**271**.321 | **539.–** | 74.**271**.421 | **599.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**271**.221 | **512.–** | 75.**271**.321 | **514.–** | 75.**271**.421 | **574.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**271**.221 | **162.–** | 81.**271**.321 | **164.–** | 81.**271**.421 | **224.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**271**.221 | **260.–** | 84.**271**.321 | **262.–** | 84.**271**.421 | **322.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.**271**.221 | **320.–** | 85.**271**.321 | **322.–** | 85.**271**.421 | **382.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**271**.221 | **327.–** | 91.**271**.321 | **329.–** | 91.**271**.421 | **389.–** |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **10.–** | **-05** | **10.–** | **-05** | **10.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **10.–** | **-06** | **10.–** | **-06** | **10.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | | fitted as standard | **-53** | **58.–** | | fitted as standard |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**271**

51.**271**.331 shown

Wall clocks with sturdy **metal cases.** State-of-the-art, up-to-date, functional – totally reliable!

71.**271**.331

Slave clock, minute pulse 12...60 V

### Case
- cir. 265 mm diameter
- cir. 300 mm diameter
- cir. 400 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT on 265 mm diameter cases, domed mineral glass on 300 mm diameter cases and shock-resistant Plexiglas® XT on 400 mm cases.

### Face
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

## Indoor
analog
single face

Type series **271**

| Clock type | face diameter ▶ 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.271.231 | 177.– | 21.271.331 | 179.– | 21.271.431 | 249.– |
| Quartz clock, battery operated 1.5 V | 41.271.231 | 123.– | 41.271.331 | 125.– | 41.271.431 | 189.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.271.231 | 164.– | 51.271.331 | 166.– | 51.271.431 | 232.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.271.231 | 242.– | 52.271.331 | 244.– | 52.271.431 | 310.– |
| Slave clock, minute pulse 12...60 V | 71.271.231 | 147.– | 71.271.331 | 149.– | 71.271.431 | 209.– |
| Slave clock, minute/second pulse 12/24 V | 72.271.231 | 352.– | 72.271.331 | 354.– | 72.271.431 | 414.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.271.231 | 497.– | 73.271.331 | 499.– | 73.271.431 | 559.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.271.231 | 537.– | 74.271.331 | 539.– | 74.271.431 | 599.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.271.231 | 512.– | 75.271.331 | 514.– | 75.271.431 | 574.– |
| Slave clock, *DCFport24* pulse telegram | 81.271.231 | 162.– | 81.271.331 | 164.– | 81.271.431 | 224.– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.271.231 | 260.– | 84.271.331 | 262.– | 84.271.431 | 322.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.271.231 | 320.– | 85.271.331 | 322.– | 85.271.431 | 382.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | 91.271.231 | 327.– | 91.271.331 | 329.– | 91.271.431 | 389.– |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 10.– | -05 | 10.– | -05 | 10.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 10.– | -06 | 10.– | -06 | 10.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Shock-resistant Plexiglas® XT (instead of mineral glass) | | fitted as standard | -53 | 58.– | | fitted as standard |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| ? custom enamelled | -10 |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**272**

81.**272**.312 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!

Suffix **-37**

Metal cover for wall or ceiling mounting brackets available as an option

81.**272**.312 **-20 -38**

Stainless steel V2A case (available as an option) with optional stainless steel cover for wall or ceiling mounting brackets

### Case
- cir. 270 mm diameter
- cir. 320 mm diameter
- cir. 420 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Faces printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hands.
No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V2A (option)**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**272**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| ▼ Clock type | Face diameter ▶ Mounting ▼ | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.272.212 | 415.– | 21.272.312 | 469.– | 21.272.412 | 539.– |
| | ceiling | 21.272.213 | 415.– | 21.272.313 | 469.– | 21.272.413 | 539.– |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.272.212 | 539.– | 51.272.312 | 599.– | 51.272.412 | 659.– |
| | ceiling | 51.272.213 | 539.– | 51.272.313 | 599.– | 51.272.413 | 659.– |
| DCF77 radio controlled clock, mains operated 230 VAC | wall | 52.272.212 | 578.– | 52.272.312 | 638.– | 52.272.412 | 698.– |
| | ceiling | 52.272.213 | 578.– | 52.272.313 | 638.– | 52.272.413 | 698.– |
| Slave clock, minute pulse 12...60 V | wall | 71.272.212 | 309.– | 71.272.312 | 339.– | 71.272.412 | 399.– |
| | ceiling | 71.272.213 | 309.– | 71.272.313 | 339.– | 71.272.413 | 399.– |
| Slave clock, minute/second pulse 12/24 V | wall | 72.272.212 | 719.– | 72.272.312 | 749.– | 72.272.412 | 809.– |
| | ceiling | 72.272.213 | 719.– | 72.272.313 | 749.– | 72.272.413 | 809.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.272.212 | 1,089.– | 74.272.312 | 1,119.– | 74.272.412 | 1,179.– |
| | ceiling | 74.272.213 | 1,089.– | 74.272.313 | 1,119.– | 74.272.413 | 1,179.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.272.212 | 1,039.– | 75.272.312 | 1,069.– | 75.272.412 | 1,129.– |
| | ceiling | 75.272.213 | 1,039.– | 75.272.313 | 1,069.– | 75.272.413 | 1,129.– |
| Slave clock, *DCFport24* pulse telegram | wall | 81.272.212 | 335.– | 81.272.312 | 365.– | 81.272.412 | 425.– |
| | ceiling | 81.272.213 | 335.– | 81.272.313 | 365.– | 81.272.413 | 425.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.272.212 | 540.– | 84.272.312 | 570.– | 84.272.412 | 630.– |
| | ceiling | 84.272.213 | 540.– | 84.272.313 | 570.– | 84.272.413 | 630.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.272.212 | 579.– | 85.272.312 | 609.– | 85.272.412 | 669.– |
| | ceiling | 85.272.213 | 579.– | 85.272.313 | 609.– | 85.272.413 | 669.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.272.212 | 525.– | 91.272.312 | 555.– | 91.272.412 | 615.– |
| | ceiling | 91.272.213 | 525.– | 91.272.313 | 555.– | 91.272.413 | 615.– |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 35.– | -05 | 35.– | -05 | 40.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 35.– | -06 | 35.– | -06 | 40.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 250.– | -20 | 270.– | -20 | 290.– |
| Detachable ceiling mounting (length acc. to customer's choice) | -29 | on request | -29 | on request | -29 | on request |
| Case with lugs for suspension by ropes or chains | -30 | on request | -30 | on request | -30 | on request |
| Metal cover for wall or ceiling mounting brackets | -37 | 36.– | -37 | 36.– | -37 | 36.– |
| Stainless steel cover V2A for wall or ceiling mounting brackets | -38 | 90.– | -38 | 90.– | -38 | 90.– |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

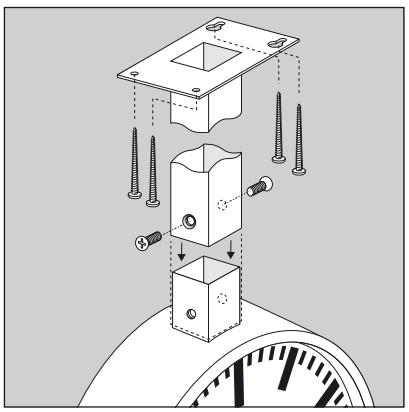
# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**272**

71.**272**.322 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!



Detachable ceiling mounting in any length desired (e.g. for suspension beneath a false ceiling), available as an option (Suffix -29)

74.**272**.322 **-06 -41**

Case enamelled in metallic dark gun metal (DB 703) and red "Railway Station Clock" style second hands available as an option

### Case
- cir. 270 mm diameter
- cir. 320 mm diameter
- cir. 420 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hands. On synchronous clocks 230 VAC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.

No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

### Double face clocks
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**272**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| ▼ Clock type | Face diameter ▶ Mounting ▼ | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**272**.222 | **415.–** | 21.**272**.322 | **469.–** | 21.**272**.422 | **539.–** |
| | ceiling | 21.**272**.223 | **415.–** | 21.**272**.323 | **469.–** | 21.**272**.423 | **539.–** |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.**272**.222 | **539.–** | 51.**272**.322 | **599.–** | 51.**272**.422 | **659.–** |
| | ceiling | 51.**272**.223 | **539.–** | 51.**272**.323 | **599.–** | 51.**272**.423 | **659.–** |
| DCF77 radio controlled clock, mains operated 230 VAC | wall | 52.**272**.222 | **578.–** | 52.**272**.322 | **638.–** | 52.**272**.422 | **698.–** |
| | ceiling | 52.**272**.223 | **578.–** | 52.**272**.323 | **638.–** | 52.**272**.423 | **698.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**272**.222 | **309.–** | 71.**272**.322 | **339.–** | 71.**272**.422 | **399.–** |
| | ceiling | 71.**272**.223 | **309.–** | 71.**272**.323 | **339.–** | 71.**272**.423 | **399.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**272**.222 | **719.–** | 72.**272**.322 | **749.–** | 72.**272**.422 | **809.–** |
| | ceiling | 72.**272**.223 | **719.–** | 72.**272**.323 | **749.–** | 72.**272**.423 | **809.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**272**.222 | **1,089.–** | 74.**272**.322 | **1,119.–** | 74.**272**.422 | **1,179.–** |
| | ceiling | 74.**272**.223 | **1,089.–** | 74.**272**.323 | **1,119.–** | 74.**272**.423 | **1,179.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.**272**.222 | **1,039.–** | 75.**272**.322 | **1,069.–** | 75.**272**.422 | **1,129.–** |
| | ceiling | 75.**272**.223 | **1,039.–** | 75.**272**.323 | **1,069.–** | 75.**272**.423 | **1,129.–** |
| Slave clock, *DCFport24* pulse telegram | wall | 81.**272**.222 | **335.–** | 81.**272**.322 | **365.–** | 81.**272**.422 | **425.–** |
| | ceiling | 81.**272**.223 | **335.–** | 81.**272**.323 | **365.–** | 81.**272**.423 | **425.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.**272**.222 | **540.–** | 84.**272**.322 | **570.–** | 84.**272**.422 | **630.–** |
| | ceiling | 84.**272**.223 | **540.–** | 84.**272**.323 | **570.–** | 84.**272**.423 | **630.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**272**.222 | **579.–** | 85.**272**.322 | **609.–** | 85.**272**.422 | **669.–** |
| | ceiling | 85.**272**.223 | **579.–** | 85.**272**.323 | **609.–** | 85.**272**.423 | **669.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**272**.222 | **525.–** | 91.**272**.322 | **555.–** | 91.**272**.422 | **615.–** |
| | ceiling | 91.**272**.223 | **525.–** | 91.**272**.323 | **555.–** | 91.**272**.423 | **615.–** |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **35.–** | **-05** | **35.–** | **-05** | **40.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **35.–** | **-06** | **35.–** | **-06** | **40.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **250.–** | **-20** | **270.–** | **-20** | **290.–** |
| Detachable ceiling mounting (length acc. to customer's choice) | **-29** | **on request** | **-29** | **on request** | **-29** | **on request** |
| Case with lugs for suspension by ropes or chains | **-30** | **on request** | **-30** | **on request** | **-30** | **on request** |
| Metal cover for wall or ceiling mounting brackets | **-37** | **36.–** | **-37** | **36.–** | **-37** | **36.–** |
| Stainless steel cover V2A for wall or ceiling mounting brackets | **-38** | **90.–** | **-38** | **90.–** | **-38** | **90.–** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** | **-41** | **on request** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |
| stainless steel V2A | **-20** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**272**

72.**272**.332 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!

71.**272**.433 **-30**

Clock case with lugs (option) for suspension by metal ropes or chains

72.**272**.332 **-05**

Case enamelled in metallic silver grey (RAL 9006) available as an option

### Case
- cir. 270 mm diameter
- cir. 320 mm diameter
- cir. 420 mm diameter

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hands.
No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V2A (option)**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**272**

| ▼ Clock type | Face diameter ▶ Mounting ▼ | 250 mm Item No. | € each | 300 mm Item No. | € each | 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.272.232 | 415.– | 21.272.332 | 469.– | 21.272.432 | 539.– |
| | ceiling | 21.272.233 | 415.– | 21.272.333 | 469.– | 21.272.433 | 539.– |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.272.232 | 539.– | 51.272.332 | 599.– | 51.272.432 | 659.– |
| | ceiling | 51.272.233 | 539.– | 51.272.333 | 599.– | 51.272.433 | 659.– |
| DCF77 radio controlled clock, mains operated 230 VAC | wall | 52.272.232 | 578.– | 52.272.332 | 638.– | 52.272.432 | 698.– |
| | ceiling | 52.272.233 | 578.– | 52.272.333 | 638.– | 52.272.433 | 698.– |
| Slave clock, minute pulse 12...60 V | wall | 71.272.232 | 309.– | 71.272.332 | 339.– | 71.272.432 | 399.– |
| | ceiling | 71.272.233 | 309.– | 71.272.333 | 339.– | 71.272.433 | 399.– |
| Slave clock, minute/second pulse 12/24 V | wall | 72.272.232 | 719.– | 72.272.332 | 749.– | 72.272.432 | 809.– |
| | ceiling | 72.272.233 | 719.– | 72.272.333 | 749.– | 72.272.433 | 809.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.272.232 | 1,089.– | 74.272.332 | 1,119.– | 74.272.432 | 1,179.– |
| | ceiling | 74.272.233 | 1,089.– | 74.272.333 | 1,119.– | 74.272.433 | 1,179.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.272.232 | 1,039.– | 75.272.332 | 1,069.– | 75.272.432 | 1,129.– |
| | ceiling | 75.272.233 | 1,039.– | 75.272.333 | 1,069.– | 75.272.433 | 1,129.– |
| Slave clock, *DCFport24* pulse telegram | wall | 81.272.232 | 335.– | 81.272.332 | 365.– | 81.272.432 | 425.– |
| | ceiling | 81.272.233 | 335.– | 81.272.333 | 365.– | 81.272.433 | 425.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.272.232 | 540.– | 84.272.332 | 570.– | 84.272.432 | 630.– |
| | ceiling | 84.272.233 | 540.– | 84.272.333 | 570.– | 84.272.433 | 630.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.272.232 | 579.– | 85.272.332 | 609.– | 85.272.432 | 669.– |
| | ceiling | 85.272.233 | 579.– | 85.272.333 | 609.– | 85.272.433 | 669.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.272.232 | 525.– | 91.272.332 | 555.– | 91.272.432 | 615.– |
| | ceiling | 91.272.233 | 525,– | 91.272.333 | 555.– | 91.272.433 | 615.– |

| Options | 250 mm Suffix | Surcharge € each | 300 mm Suffix | Surcharge € each | 400 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 35.– | -05 | 35.– | -05 | 40.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 35.– | -06 | 35.– | -06 | 40.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 250.– | -20 | 270.– | -20 | 290.– |
| Detachable ceiling mounting (length acc. to customer's choice) | -29 | on request | -29 | on request | -29 | on request |
| Case with lugs for suspension by ropes or chains | -30 | on request | -30 | on request | -30 | on request |
| Metal cover for wall or ceiling mounting brackets | -37 | 36.– | -37 | 36.– | -37 | 36.– |
| Stainless steel cover V2A for wall or ceiling mounting brackets | -38 | 90.– | -38 | 90.– | -38 | 90.– |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**280**

41.**280**.311 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

71.**280**.311

Slave clock, minute pulse 12...60 V

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type / Face dimensions ▶ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.280.211 | 134.– | 21.280.311 | 144.– | 21.280.411 | 169.– |
| Quartz clock, battery operated 1.5 V | 41.280.211 | 89.– | 41.280.311 | 99.– | 41.280.411 | 125.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.280.211 | 146.– | 51.280.311 | 156.– | 51.280.411 | 198.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.280.211 | 224.– | 52.280.311 | 234.– | 52.280.411 | 276.– |
| Slave clock, minute pulse 12...60 V | 71.280.211 | 109.– | 71.280.311 | 119.– | 71.280.411 | 139.– |
| Slave clock, minute/second pulse 12/24 V | 72.280.211 | 314.– | 72.280.311 | 324.– | 72.280.411 | 344.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.280.211 | 459.– | 73.280.311 | 469.– | 73.280.411 | 489.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.280.211 | 499.– | 74.280.311 | 509.– | 74.280.411 | 529.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.280.211 | 474.– | 75.280.311 | 484.– | 75.280.411 | 504.– |
| Slave clock, *DCFport24* pulse telegram | 81.280.211 | 123.– | 81.280.311 | 133.– | 81.280.411 | 154.– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.280.211 | 221.– | 84.280.311 | 231.– | 84.280.411 | 252.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.280.211 | 281.– | 85.280.311 | 291.– | 85.280.411 | 312.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.280.211 | 288.– | 91.280.311 | 298.– | 91.280.411 | 319.– |

| Option | 250x250mm Suffix | Surcharge € each | 300x300mm Suffix | Surcharge € each | 400x400mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Indoor**
analog
single face

Type series
**280**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**280**

71.**280**.321 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

21.**280**.321 **–40**

Optionally available with red "Railway Station Clock" style second hand

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand. On synchronous clocks 230 V AC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.
No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type ▶ Face dimensions | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**280**.221 | **134.–** | 21.**280**.321 | **144.–** | 21.**280**.421 | **169.–** |
| Quartz clock, battery operated 1.5 V | 41.**280**.221 | **89.–** | 41.**280**.321 | **99.–** | 41.**280**.421 | **125.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**280**.221 | **146.–** | 51.**280**.321 | **156.–** | 51.**280**.421 | **198.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**280**.221 | **224.–** | 52.**280**.321 | **234.–** | 52.**280**.421 | **276.–** |
| Slave clock, minute pulse 12...60 V | 71.**280**.221 | **109.–** | 71.**280**.321 | **119.–** | 71.**280**.421 | **139.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**280**.221 | **314.–** | 72.**280**.321 | **324.–** | 72.**280**.421 | **344.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**280**.221 | **459.–** | 73.**280**.321 | **469.–** | 73.**280**.421 | **489.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**280**.221 | **499.–** | 74.**280**.321 | **509.–** | 74.**280**.421 | **529.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**280**.221 | **474.–** | 75.**280**.321 | **484.–** | 75.**280**.421 | **504.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**280**.221 | **123.–** | 81.**280**.321 | **133.–** | 81.**280**.421 | **154.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**280**.221 | **221.–** | 84.**280**.321 | **231.–** | 84.**280**.421 | **252.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.**280**.221 | **281.–** | 85.**280**.321 | **291.–** | 85.**280**.421 | **312.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**280**.221 | **288.–** | 91.**280**.321 | **298.–** | 91.**280**.421 | **319.–** |

| Options | 250x250mm Suffix | Surcharge € each | 300x300mm Suffix | Surcharge € each | 400x400mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **74**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

## Indoor
analog
single face

Type series
**280**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**280**

51.**280**.331 shown

Wall clocks with shock-resistant **plastic cases**. State-of-the-art, up-to-date, functional – totally reliable!

71.**280**.331

Slave clock, minute pulse 12...60 V

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

shock-resistant Plexiglas® XT case with a matted rim.
Protection grade IP 40 (EN 60 529).

### Front glass
Shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

## Indoor
analog
single face

Type series
**280**

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type / Face dimensions ▶ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.280.231 | 134.– | 21.280.331 | 144.– | 21.280.431 | 169.– |
| Quartz clock, battery operated 1.5 V | 41.280.231 | 89.– | 41.280.331 | 99.– | 41.280.431 | 125.– |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.280.231 | 146.– | 51.280.331 | 156.– | 51.280.431 | 198.– |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.280.231 | 224.– | 52.280.331 | 234.– | 52.280.431 | 276.– |
| Slave clock, minute pulse 12...60 V | 71.280.231 | 109.– | 71.280.331 | 119.– | 71.280.431 | 139.– |
| Slave clock, minute/second pulse 12/24 V | 72.280.231 | 314.– | 72.280.331 | 324.– | 72.280.431 | 344.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.280.231 | 459.– | 73.280.331 | 469.– | 73.280.431 | 489.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.280.231 | 499.– | 74.280.331 | 509.– | 74.280.431 | 529.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.280.231 | 474.– | 75.280.331 | 484.– | 75.280.431 | 504.– |
| Slave clock, *DCFport24* pulse telegram | 81.280.231 | 123.– | 81.280.331 | 133.– | 81.280.431 | 154.– |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.280.231 | 221.– | 84.280.331 | 231.– | 84.280.431 | 252.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.280.231 | 281.– | 85.280.331 | 291.– | 85.280.431 | 312.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.280.231 | 288.– | 91.280.331 | 298.– | 91.280.431 | 319.– |

| Option | 250x250mm Suffix | Surcharge € each | 300x300mm Suffix | Surcharge € each | 400x400mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | -60 | 149.– | -60 | 149.– |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**281**

81.**281**.311 shown

Wall clocks with sturdy **metal cases** with shock-resistant front glasses. State-of-the-art, up-to-date, functional – totally reliable!

71.**281**.311

Slave clock, minute pulse 12...60 V

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type ▼ / Face dimensions ▶ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**281**.211 | **177.–** | 21.**281**.311 | **179.–** | 21.**281**.411 | **249.–** |
| Quartz clock, battery operated 1.5 V | 41.**281**.211 | **123.–** | 41.**281**.311 | **125.–** | 41.**281**.411 | **189.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**281**.211 | **164.–** | 51.**281**.311 | **166.–** | 51.**281**.411 | **232.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**281**.211 | **242.–** | 52.**281**.311 | **244.–** | 52.**281**.411 | **310.–** |
| Slave clock, minute pulse 12...60 V | 71.**281**.211 | **147.–** | 71.**281**.311 | **149.–** | 71.**281**.411 | **209.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**281**.211 | **352.–** | 72.**281**.311 | **354.–** | 72.**281**.411 | **414.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**281**.211 | **497.–** | 73.**281**.311 | **499.–** | 73.**281**.411 | **559.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**281**.211 | **537.–** | 74.**281**.311 | **539.–** | 74.**281**.411 | **599.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**281**.211 | **512.–** | 75.**281**.311 | **514.–** | 75.**281**.411 | **574.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**281**.211 | **162.–** | 81.**281**.311 | **164.–** | 81.**281**.411 | **224.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**281**.211 | **260.–** | 84.**281**.311 | **262.–** | 84.**281**.411 | **322.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.**281**.211 | **320.–** | 85.**281**.311 | **322.–** | 85.**281**.411 | **382.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**281**.211 | **327.–** | 91.**281**.311 | **329.–** | 91.**281**.411 | **389.–** |

| Options | 250x250mm Suffix | Surcharge € each | 300x300mm Suffix | Surcharge € each | 400x400mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **10.–** | **-05** | **10.–** | **-05** | **10.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **10.–** | **-06** | **10.–** | **-06** | **10.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

## Indoor
analog
single face

Type series
**281**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**281**

71.**281**.321 shown

Wall clocks with sturdy **metal cases** with shock-resistant front glasses. State-of-the-art, up-to-date, functional – totally reliable!

74.**281**.321 **–40**

Optionally available with red "Railway Station Clock" style second hand

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand. On synchronous clocks 230 V AC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.
No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

## Indoor
analog
single face

Type series **281**

| Clock type | Face dimensions ▶ 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**281**.221 | **177.–** | 21.**281**.321 | **179.–** | 21.**281**.421 | **249.–** |
| Quartz clock, battery operated 1.5 V | 41.**281**.221 | **123.–** | 41.**281**.321 | **125.–** | 41.**281**.421 | **189.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**281**.221 | **164.–** | 51.**281**.321 | **166.–** | 51.**281**.421 | **232.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**281**.221 | **242.–** | 52.**281**.321 | **244.–** | 52.**281**.421 | **310.–** |
| Slave clock, minute pulse 12...60 V | 71.**281**.221 | **147.–** | 71.**281**.321 | **149.–** | 71.**281**.421 | **209.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**281**.221 | **352.–** | 72.**281**.321 | **354.–** | 72.**281**.421 | **414.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**281**.221 | **497.–** | 73.**281**.321 | **499.–** | 73.**281**.421 | **559.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**281**.221 | **537.–** | 74.**281**.321 | **539.–** | 74.**281**.421 | **599.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**281**.221 | **512.–** | 75.**281**.321 | **514.–** | 75.**281**.421 | **574.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**281**.221 | **162.–** | 81.**281**.321 | **164.–** | 81.**281**.421 | **224.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**281**.221 | **260.–** | 84.**281**.321 | **262.–** | 84.**281**.421 | **322.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.**281**.221 | **320.–** | 85.**281**.321 | **322.–** | 85.**281**.421 | **382.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | 91.**281**.221 | **327.–** | 91.**281**.321 | **329.–** | 91.**281**.421 | **389.–** |

| Options | 250x250mm Surcharge Suffix | € each | 300x300mm Surcharge Suffix | € each | 400x400mm Surcharge Suffix | € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **10.–** | **-05** | **10.–** | **-05** | **10.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **10.–** | **-06** | **10.–** | **-06** | **10.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## single face

**Indoor**
analog
single face

Type series
**281**

72.**281**.331 shown

Wall clocks with sturdy **metal cases** with shock-resistant front glasses. State-of-the-art, up-to-date, functional – totally reliable!

71.**281**.331

Slave clock, minute pulse 12...60 V

### Case
- cir. 275 x 275 mm
- cir. 325 x 325 mm
- cir. 425 x 425 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Flat shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Face
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hand on minute pulse 12...60 V controlled slave clocks.

**Power outage reserve**
DCF77 radio controlled clocks and *AirPort24* slave clocks with a 230 V AC mains power supply of this type series provide continued operation for approx. 14 days in case of a mains power outage.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type ▼ / Face dimensions ▶ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**281**.231 | **177.–** | 21.**281**.331 | **179.–** | 21.**281**.431 | **249.–** |
| Quartz clock, battery operated 1.5 V | 41.**281**.231 | **123.–** | 41.**281**.331 | **125.–** | 41.**281**.431 | **189.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**281**.231 | **164.–** | 51.**281**.331 | **166.–** | 51.**281**.431 | **232.–** |
| DCF77 radio controlled clock, mains operated 230 V AC, with outage reserve | 52.**281**.231 | **242.–** | 52.**281**.331 | **244.–** | 52.**281**.431 | **310.–** |
| Slave clock, minute pulse 12...60 V | 71.**281**.231 | **147.–** | 71.**281**.331 | **149.–** | 71.**281**.431 | **209.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**281**.231 | **352.–** | 72.**281**.331 | **354.–** | 72.**281**.431 | **414.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**281**.231 | **497.–** | 73.**281**.331 | **499.–** | 73.**281**.431 | **559.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**281**.231 | **537.–** | 74.**281**.331 | **539.–** | 74.**281**.431 | **599.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**281**.231 | **512.–** | 75.**281**.331 | **514.–** | 75.**281**.431 | **574.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**281**.231 | **162.–** | 81.**281**.331 | **164.–** | 81.**281**.431 | **224.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 1.5 V | 84.**281**.231 | **260.–** | 84.**281**.331 | **262.–** | 84.**281**.431 | **322.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC, with outage reserve | 85.**281**.231 | **320.–** | 85.**281**.331 | **322.–** | 85.**281**.431 | **382.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1)] | 91.**281**.231 | **327.–** | 91.**281**.331 | **329.–** | 91.**281**.431 | **389.–** |

| Options | 250x250mm Suffix | Surcharge € each | 300x300mm Suffix | Surcharge € each | 400x400mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **10.–** | **-05** | **10.–** | **-05** | **10.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **10.–** | **-06** | **10.–** | **-06** | **10.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **-60** | **149.–** | **-60** | **149.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

## Indoor
analog
single face

Type series
**281**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**282**

81.**282**.312 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!

Suffix **-37**

Metal cover for wall or ceiling mounting brackets available as an option

81.**282**.312 **-20 -38**

Stainless steel V2A case (available as an option) with optional stainless steel cover for wall or ceiling mounting brackets

### Case
- cir. 285 x 285 mm
- cir. 335 x 335 mm
- cir. 435 x 435 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black Arabic numerals for easy, doubt-free reading even over longer distances. Faces printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hands.
No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V2A (option)**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**282**

| ▼ Clock type | Face dimensions ▶ Mounting ▼ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | wall | 21.282.212 | 415.– | 21.282.312 | 469.– | 21.282.412 | 539.– |
| | ceiling | 21.282.213 | 415.– | 21.282.313 | 469.– | 21.282.413 | 539.– |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.282.212 | 539.– | 51.282.312 | 599.– | 51.282.412 | 659.– |
| | ceiling | 51.282.213 | 539.– | 51.282.313 | 599.– | 51.282.413 | 659.– |
| DCF77 radio controlled clock, mains operated 230 V AC | wall | 52.282.212 | 578.– | 52.282.312 | 638.– | 52.282.412 | 698.– |
| | ceiling | 52.282.213 | 578.– | 52.282.313 | 638.– | 52.282.413 | 698.– |
| Slave clock, minute pulse 12...60 V | wall | 71.282.212 | 309.– | 71.282.312 | 339.– | 71.282.412 | 399.– |
| | ceiling | 71.282.213 | 309.– | 71.282.313 | 339.– | 71.282.413 | 399.– |
| Slave clock, minute/second pulse 12/24 V | wall | 72.282.212 | 719.– | 72.282.312 | 749.– | 72.282.412 | 809.– |
| | ceiling | 72.282.213 | 719.– | 72.282.313 | 749.– | 72.282.413 | 809.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | wall | 74.282.212 | 1,089.– | 74.282.312 | 1,119.– | 74.282.412 | 1,179.– |
| | ceiling | 74.282.213 | 1,089.– | 74.282.313 | 1,119.– | 74.282.413 | 1,179.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.282.212 | 1,039.– | 75.282.312 | 1,069.– | 75.282.412 | 1,129.– |
| | ceiling | 75.282.213 | 1,039.– | 75.282.313 | 1,069.– | 75.282.413 | 1,129.– |
| Slave clock, *DCFport24* pulse telegram | wall | 81.282.212 | 335.– | 81.282.312 | 365.– | 81.282.412 | 425.– |
| | ceiling | 81.282.213 | 335.– | 81.282.313 | 365.– | 81.282.413 | 425.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.282.212 | 540.– | 84.282.312 | 570.– | 84.282.412 | 630.– |
| | ceiling | 84.282.213 | 540.– | 84.282.313 | 570.– | 84.282.413 | 630.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | wall | 85.282.212 | 579.– | 85.282.312 | 609.– | 85.282.412 | 669.– |
| | ceiling | 85.282.213 | 579.– | 85.282.313 | 609.– | 85.282.413 | 669.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.282.212 | 525.– | 91.282.312 | 555.– | 91.282.412 | 615.– |
| | ceiling | 91.282.213 | 525.– | 91.282.313 | 555.– | 91.282.413 | 615.– |

| Options | 250x250mm Surcharge Suffix | € each | 300x300mm Surcharge Suffix | € each | 400x400mm Surcharge Suffix | € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 35.– | -05 | 35.– | -05 | 40.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 35.– | -06 | 35.– | -06 | 40.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 250.– | -20 | 270.– | -20 | 290.– |
| Detachable ceiling mounting (length acc. to customer's choice) | -29 | on request | -29 | on request | -29 | on request |
| Case with lugs for suspension by ropes or chains | -30 | on request | -30 | on request | -30 | on request |
| Metal cover for wall or ceiling mounting brackets | -37 | 36.– | -37 | 36.– | -37 | 36.– |
| Stainless steel cover V2A for wall or ceiling mounting brackets | -38 | 90.– | -38 | 90.– | -38 | 90.– |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

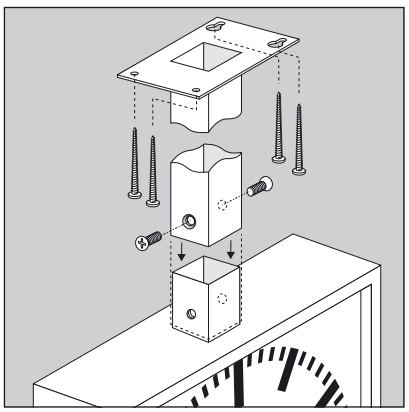
# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**282**

71.**282**.322 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!



Detachable ceiling mounting in any length desired (e.g. for suspension beneath a false ceiling), available as an option (Suffix -29)

74.**282**.322 **-06 -41**

Case enamelled in metallic dark gun metal (DB 703) and red "Railway Station Clock" style second hands available as an option

### Case
- cir. 285 x 285 mm
- cir. 335 x 335 mm
- cir. 435 x 435 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black DIN bar markings for easy, doubt-free reading even over longer distances. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hands. On synchronous clocks 230 V AC/50 Hz (**21**.xxx), on slave clocks with minute-/second pulse (**72**.xxx), and on slave clocks with synchronous second hand (**74**.xxx), the "Railway Station Clock" style second hand with the "eye" is available as an option.

No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

### Double face clocks
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**282**

| ▼ Clock type | Face dimensions ▶ Mounting ▼ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | wall | 21.**282**.222 | **415.–** | 21.**282**.322 | **469.–** | 21.**282**.422 | **539.–** |
| | ceiling | 21.**282**.223 | **415.–** | 21.**282**.323 | **469.–** | 21.**282**.423 | **539.–** |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.**282**.222 | **539.–** | 51.**282**.322 | **599.–** | 51.**282**.422 | **659.–** |
| | ceiling | 51.**282**.223 | **539.–** | 51.**282**.323 | **599.–** | 51.**282**.423 | **659.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | wall | 52.**282**.222 | **578.–** | 52.**282**.322 | **638.–** | 52.**282**.422 | **698.–** |
| | ceiling | 52.**282**.223 | **578.–** | 52.**282**.323 | **638.–** | 52.**282**.423 | **698.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**282**.222 | **309.–** | 71.**282**.322 | **339.–** | 71.**282**.422 | **399.–** |
| | ceiling | 71.**282**.223 | **309.–** | 71.**282**.323 | **339.–** | 71.**282**.423 | **399.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**282**.222 | **719.–** | 72.**282**.322 | **749.–** | 72.**282**.422 | **809.–** |
| | ceiling | 72.**282**.223 | **719.–** | 72.**282**.323 | **749.–** | 72.**282**.423 | **809.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | wall | 74.**282**.222 | **1,089.–** | 74.**282**.322 | **1,119.–** | 74.**282**.422 | **1,179.–** |
| | ceiling | 74.**282**.223 | **1,089.–** | 74.**282**.323 | **1,119.–** | 74.**282**.423 | **1,179.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.**282**.222 | **1,039.–** | 75.**282**.322 | **1,069.–** | 75.**282**.422 | **1,129.–** |
| | ceiling | 75.**282**.223 | **1,039.–** | 75.**282**.323 | **1,069.–** | 75.**282**.423 | **1,129.–** |
| Slave clock, *DCFport24* pulse telegram | wall | 81.**282**.222 | **335.–** | 81.**282**.322 | **365.–** | 81.**282**.422 | **425.–** |
| | ceiling | 81.**282**.223 | **335.–** | 81.**282**.323 | **365.–** | 81.**282**.423 | **425.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.**282**.222 | **540.–** | 84.**282**.322 | **570.–** | 84.**282**.422 | **630.–** |
| | ceiling | 84.**282**.223 | **540.–** | 84.**282**.323 | **570.–** | 84.**282**.423 | **630.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | wall | 85.**282**.222 | **579.–** | 85.**282**.322 | **609.–** | 85.**282**.422 | **669.–** |
| | ceiling | 85.**282**.223 | **579.–** | 85.**282**.323 | **609.–** | 85.**282**.423 | **669.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**282**.222 | **525.–** | 91.**282**.322 | **555.–** | 91.**282**.422 | **615.–** |
| | ceiling | 91.**282**.223 | **525.–** | 91.**282**.323 | **555.–** | 91.**282**.423 | **615.–** |

| Options | 250x250mm Surcharge Suffix | € each | 300x300mm Surcharge Suffix | € each | 400x400mm Surcharge Suffix | € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **35.–** | **-05** | **35.–** | **-05** | **40.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **35.–** | **-06** | **35.–** | **-06** | **40.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **250.–** | **-20** | **270.–** | **-20** | **290.–** |
| Detachable ceiling mounting (length acc. to customer's choice) | **-29** | **on request** | **-29** | **on request** | **-29** | **on request** |
| Case with lugs for suspension by ropes or chains | **-30** | **on request** | **-30** | **on request** | **-30** | **on request** |
| Metal cover for wall or ceiling mounting brackets | **-37** | **36.–** | **-37** | **36.–** | **-37** | **36.–** |
| Stainless steel cover V2A for wall or ceiling mounting brackets | **-38** | **90.–** | **-38** | **90.–** | **-38** | **90.–** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** | **-41** | **on request** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |
| stainless steel V2A | **-20** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Indoor Clocks
## double face

**Indoor**
analog
double face

Type series
**282**

72.**282**.332 shown

Double face clocks for all places where time must be readable from either side. Robust metal, fit everywhere!

71.**282**.333 **-30**

Clock case with lugs (option) for suspension by metal ropes or chains

72.**282**.332 **-05**

Case enamelled in metallic silver grey (RAL 9006) available as an option

### Case
- cir. 285 x 285 mm
- cir. 335 x 335 mm
- cir. 435 x 435 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, the case may be enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
As an option, a stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) is available in a matted finish.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of very sturdy wall or ceiling mounting brackets, standard length cir. 150 mm. For custom lengths or custom mounting options see table below.

### Front glasses
Flat, shock-resistant Plexiglas® XT for outstandingly clear visibility.

### Faces
High distinction white metal with black fine-line markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hands.
No second hands on DCF77 and *AirPort24* radio controlled clocks and on minute pulse 12...60 V controlled slave clocks.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V2A (option)**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

## Indoor
analog
double face

Type series
**282**

| ▼ Clock type | Face dimensions ▶ Mounting ▼ | 250 x 250 mm Item No. | € each | 300 x 300 mm Item No. | € each | 400 x 400 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | wall | 21.**282**.232 | **415.–** | 21.**282**.332 | **469.–** | 21.**282**.432 | **539.–** |
| | ceiling | 21.**282**.233 | **415.–** | 21.**282**.333 | **469.–** | 21.**282**.433 | **539.–** |
| DCF77 radio controlled clock, battery operated 1.5 V[1) 2)] | wall | 51.**282**.232 | **539.–** | 51.**282**.332 | **599.–** | 51.**282**.432 | **659.–** |
| | ceiling | 51.**282**.233 | **539.–** | 51.**282**.333 | **599.–** | 51.**282**.433 | **659.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | wall | 52.**282**.232 | **578.–** | 52.**282**.332 | **638.–** | 52.**282**.432 | **698.–** |
| | ceiling | 52.**282**.233 | **578.–** | 52.**282**.333 | **638.–** | 52.**282**.433 | **698.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**282**.232 | **309.–** | 71.**282**.332 | **339.–** | 71.**282**.432 | **399.–** |
| | ceiling | 71.**282**.233 | **309.–** | 71.**282**.333 | **339.–** | 71.**282**.433 | **399.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**282**.232 | **719.–** | 72.**282**.332 | **749.–** | 72.**282**.432 | **809.–** |
| | ceiling | 72.**282**.233 | **719.–** | 72.**282**.333 | **749.–** | 72.**282**.433 | **809.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | wall | 74.**282**.232 | **1,089.–** | 74.**282**.332 | **1,119.–** | 74.**282**.432 | **1,179.–** |
| | ceiling | 74.**282**.233 | **1,089.–** | 74.**282**.333 | **1,119.–** | 74.**282**.433 | **1,179.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | wall | 75.**282**.232 | **1,039.–** | 75.**282**.332 | **1,069.–** | 75.**282**.432 | **1,129.–** |
| | ceiling | 75.**282**.233 | **1,039.–** | 75.**282**.333 | **1,069.–** | 75.**282**.433 | **1,129.–** |
| Slave clock, *DCFport24* pulse telegram | wall | 81.**282**.232 | **335.–** | 81.**282**.332 | **365.–** | 81.**282**.432 | **425.–** |
| | ceiling | 81.**282**.233 | **335.–** | 81.**282**.333 | **365.–** | 81.**282**.433 | **425.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 1.5 V[1)] | wall | 84.**282**.232 | **540.–** | 84.**282**.332 | **570.–** | 84.**282**.432 | **630.–** |
| | ceiling | 84.**282**.233 | **540.–** | 84.**282**.333 | **570.–** | 84.**282**.433 | **630.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | wall | 85.**282**.232 | **579.–** | 85.**282**.332 | **609.–** | 85.**282**.432 | **669.–** |
| | ceiling | 85.**282**.233 | **579.–** | 85.**282**.333 | **609.–** | 85.**282**.433 | **669.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**282**.232 | **525.–** | 91.**282**.332 | **555.–** | 91.**282**.432 | **615.–** |
| | ceiling | 91.**282**.233 | **525.–** | 91.**282**.333 | **555.–** | 91.**282**.433 | **615.–** |

| Options | 250x250mm Surcharge Suffix | € each | 300x300mm Surcharge Suffix | € each | 400x400mm Surcharge Suffix | € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **35.–** | **-05** | **35.–** | **-05** | **40.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **35.–** | **-06** | **35.–** | **-06** | **40.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **250.–** | **-20** | **270.–** | **-20** | **290.–** |
| Detachable ceiling mounting (length acc. to customer's choice) | **-29** | **on request** | **-29** | **on request** | **-29** | **on request** |
| Case with lugs for suspension by ropes or chains | **-30** | **on request** | **-30** | **on request** | **-30** | **on request** |
| Metal cover for wall or ceiling mounting brackets | **-37** | **36.–** | **-37** | **36.–** | **-37** | **36.–** |
| Stainless steel cover V2A for wall or ceiling mounting brackets | **-38** | **90.–** | **-38** | **90.–** | **-38** | **90.–** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V2A | **-20** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

**Large space**
analog
single face
double face
four faces

# Clocks for Large Spaces

## analog · single face, double face, four faces

*Large rooms with high ceilings and large halls require large clocks that can be read free of doubt from long distances. Correct time at a single glance. You have our guarantee!*

# Clocks for Large Spaces
## single face, indoor

Large spaces call for large clocks! Exact time, clearly readable.

### Case
■ cir. 500 mm diameter
very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Front glass
Domed shock-resistant Plexiglas® XT. As an option, low reflectivity front glass is available.

### Face
High distinction white metal with large black Arabic numerals or large black DIN bar markings for easy, doubt-free reading even over longer distances.
Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands.

Red second hand on synchronous clocks (**21**.xxx), slave clocks with minute/second pulse (**72**.xxx) and slave clocks with synchronous second hands (**74**.xxx) only.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

74.**330**.511

71.**330**.521 shown

| Clock type | Arabic numerals Item No. | € each | Bar markings Item No. | € each |
|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**330**.511 | **349.–** | 21.**330**.521 | **349.–** |
| DCF77 radio controlled clock, battery op. 2 x 1.5 V[1) 2)] | 51.**330**.511 | **596.–** | 51.**330**.521 | **596.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | 52.**330**.511 | **635.–** | 52.**330**.521 | **635.–** |
| Slave clock, minute pulse 12...60 V | 71.**330**.511 | **325.–** | 71.**330**.521 | **325.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**330**.511 | **530.–** | 72.**330**.521 | **530.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**330**.511 | **715.–** | 74.**330**.521 | **715.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**330**.511 | **399.–** | 81.**330**.521 | **399.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | 84.**330**.511 | **519.–** | 84.**330**.521 | **519.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.**330**.511 | **558.–** | 85.**330**.521 | **558.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | 91.**330**.511 | **629.–** | 91.**330**.521 | **629.–** |

| Options | Suffix | Surcharge € each | Suffix | Surcharge € each |
|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **24.–** | **-05** | **24.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **24.–** | **-06** | **24.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** |
| Low reflectivity front glass | **-50** | **110.–** | **-50** | **110.–** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Large space**
analog
single face

Type series
**330**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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# Clocks for Large Spaces
## double face, indoor

**Large space**
analog
double face

Type series
**332**

71.**332**.522 shown

Double face indoor clocks in an extremely sturdy version – **solid, industrial grade metal cases** with sturdy wall brackets or suspended from the ceiling, shock-resistant Plexiglas® XT front glasses.
The best decision for a reliable and durable product!

52.**332**.513

▲ Ceiling mount double bracket design, optionally available in custom length

74.**332**.514

Tube version for suspension from the ceiling, tube optionally available in custom length ▶

### Case
■ cir. 500 mm diameter, very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, standard bracket length cir. 210 mm, or sturdy metal tube suspension from the ceiling, tube length cir. 500 mm.
Rim and mounting fixtures enamelled metallic dark gun metal (DB 703).

### Front glasses
Domed shock-resistant Plexiglas® XT.
As an option, low reflectivity front glasses are available.

### Faces
High distinction white metal with large black Arabic numerals or large black DIN bar markings for easy, doubt-free reading even over longer distances.
Faces printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands.
Red second hands on synchronous clocks (**21**.xxx), slave clocks with minute/second pulse (**72**.xxx) and slave clocks with synchronous second hands (**74**.xxx) only.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – that's it!

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Large space**
analog
double face

Type series
**332**

| Clock type | | Arabic numerals Item No. | € each | Bar markings Item No. | € each |
|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**332**.512 | **898.–** | 21.**332**.522 | **898.–** |
| | ceiling | 21.**332**.513 | **898.–** | 21.**332**.523 | **898.–** |
| | tube | 21.**332**.514 | **898.–** | 21.**332**.524 | **898.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | wall | 51.**332**.512 | **1,150.–** | 51.**332**.522 | **1,150.–** |
| | ceiling | 51.**332**.513 | **1,150.–** | 51.**332**.523 | **1,150.–** |
| | tube | 51.**332**.514 | **1,150.–** | 51.**332**.524 | **1,150.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | wall | 52.**332**.512 | **1,189.–** | 52.**332**.522 | **1,189.–** |
| | ceiling | 52.**332**.513 | **1,189.–** | 52.**332**.523 | **1,189.–** |
| | tube | 52.**332**.514 | **1,189.–** | 52.**332**.524 | **1,189.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**332**.512 | **829.–** | 71.**332**.522 | **829.–** |
| | ceiling | 71.**332**.513 | **829.–** | 71.**332**.523 | **829.–** |
| | tube | 71.**332**.514 | **829.–** | 71.**332**.524 | **829.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**332**.512 | **1,239.–** | 72.**332**.522 | **1,239.–** |
| | ceiling | 72.**332**.513 | **1,239.–** | 72.**332**.523 | **1,239.–** |
| | tube | 72.**332**.514 | **1,239.–** | 72.**332**.524 | **1,239.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**332**.512 | **1,609.–** | 74.**332**.522 | **1,609.–** |
| | ceiling | 74.**332**.513 | **1,609.–** | 74.**332**.523 | **1,609.–** |
| | tube | 74.**332**.514 | **1,609.–** | 74.**332**.524 | **1,609.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.**332**.512 | **869.–** | 81.**332**.522 | **869.–** |
| | ceiling | 81.**332**.513 | **869.–** | 81.**332**.523 | **869.–** |
| | tube | 81.**332**.514 | **869.–** | 81.**332**.524 | **869.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | wall | 84.**332**.512 | **1,019.–** | 84.**332**.522 | **1,019.–** |
| | ceiling | 84.**332**.513 | **1,019.–** | 84.**332**.523 | **1,019.–** |
| | tube | 84.**332**.514 | **1,019.–** | 84.**332**.524 | **1,019.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**332**.512 | **1,058.–** | 85.**332**.522 | **1,058.–** |
| | ceiling | 85.**332**.513 | **1,058.–** | 85.**332**.523 | **1,058.–** |
| | tube | 85.**332**.514 | **1,058.–** | 85.**332**.524 | **1,058.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**332**.512 | **1,129.–** | 91.**332**.522 | **1,129.–** |
| | ceiling | 91.**332**.513 | **1,129.–** | 91.**332**.523 | **1,129.–** |
| | tube | 91.**332**.514 | **1,129.–** | 91.**332**.524 | **1,129.–** |

| Options | Suffix | Surcharge € each | Suffix | Surcharge € each |
|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **48.–** | **-05** | **48.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **48.–** | **-06** | **48.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** |
| Case fitted with lugs for suspension by ropes or chains | **-30** | **none** | **-30** | **none** |
| Custom length mounting brackets | **-31** | **on request** | **-31** | **on request** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** |
| Low reflectivity front glasses | **-51** | **220.–** | **-51** | **220.–** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## single face, indoor

**Large space**
analog
single face

Type series
**350**

71.**350**.511 shown

Large spaces call for large clocks! Extremely sturdy clocks with **solid, industrial grade metal cases**. Doubt-free reading of the exact time from afar – at any time.

Also available in a version resistant to thrown balls, according to DIN 18032, part 3.

74.**350**.511 **-06 -40**

▲ Case enamelled dark gun metal (DB703) and red "Railway Station Clock" style second hand available as options

**Outdoor clocks resistant to thrown balls**

see pages
162 and 163.

## Case

- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

## Resistance to thrown balls acc. to DIN 18032, part 3 (option)

Clocks of this type series are also available resistant to thrown balls and thus suitable for gymnasiums and other sporting facilities. Very sturdy case with three-point mounting as a safeguard, proof against wrenching of the hook. Front glass is a 2-layer laminated safety glass, 6 mm thick. The clocks are certified and labelled "resistant to thrown balls according to DIN 18032, part 3".

## Front glass

Flat shock-resistant Plexiglas® XT (PMMA) as standard.

## Packaging (option)

As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

## Face

High distinction white metal with large black Arabic numerals for easy, doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm and 620 mm respectively. Face printed according to DIN 41 091.

## Hands

Pointed black bar-type hour and minute hands according to DIN 41 092.
Red second hand or distinct "Railway Station Clock" style red second hand with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Large space**
analog
single face

Type series
**350**

| Clock type | Face diameter ▶ 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**350**.411 | **425.–** | 21.**350**.511 | **505.–** | 21.**350**.611 | **595.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | 51.**350**.411 | **699.–** | 51.**350**.511 | **779.–** | 51.**350**.611 | **929.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | 52.**350**.411 | **738.–** | 52.**350**.511 | **818.–** | 52.**350**.611 | **968.–** |
| Slave clock, minute pulse 12...60 V | 71.**350**.411 | **399.–** | 71.**350**.511 | **479.–** | 71.**350**.611 | **569.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**350**.411 | **604.–** | 72.**350**.511 | **684.–** | 72.**350**.611 | **774.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**350**.411 | **789.–** | 74.**350**.511 | **869.–** | 74.**350**.611 | **959.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**350**.411 | **479.–** | 81.**350**.511 | **559.–** | 81.**350**.611 | **649.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | 84.**350**.411 | **599.–** | 84.**350**.511 | **679.–** | 84.**350**.611 | **769.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**350**.411 | **638.–** | 85.**350**.511 | **718.–** | 85.**350**.611 | **808.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | 91.**350**.411 | **709.–** | 91.**350**.511 | **789.–** | 91.**350**.611 | **879.–** |

| Options | 420 mm Suffix | Surcharge € each | 520 mm Suffix | Surcharge € each | 620 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** | **-06** | **none** | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **80.–** | **-54** | **80.–** | **-54** | **80.–** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |

## Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Outdoor clocks resistant to thrown balls**
see pages 162 and 163.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## single face, indoor

**Large space**
analog
single face

Type series
**350**

71.**350**.521 shown

Large spaces call for large clocks! Extremely sturdy clocks with **solid, industrial grade metal cases**. Doubt-free reading of the exact time from afar – at any time.

Also available in a version resistant to thrown balls, according to DIN 18032, part 3.

74.**350**.521 **-06 -40**

▲ Case enamelled dark gun metal (DB703) and red "Railway Station Clock" style second hand available as options

**Outdoor clocks resistant to thrown balls**

see pages
162 and 163.

### Case
- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Resistance to thrown balls acc. to DIN 18032, part 3 (option)
Clocks of this type series are also available resistant to thrown balls and thus suitable for gymnasiums and other sporting facilities. Very sturdy case with three-point mounting as a safeguard, proof against wrenching of the hook. Front glass is a 2-layer laminated safety glass, 6 mm thick. The clocks are certified and labelled "resistant to thrown balls according to DIN 18032, part 3".

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm and 620 mm respectively. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands according to DIN 41 092.
Red second hand or distinct "Railway Station Clock" style red second hand with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

| Clock type (Face diameter ▶) | 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**350**.421 | **425.–** | 21.**350**.521 | **505.–** | 21.**350**.621 | **595.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | 51.**350**.421 | **699.–** | 51.**350**.521 | **779.–** | 51.**350**.621 | **929.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | 52.**350**.421 | **738.–** | 52.**350**.521 | **818.–** | 52.**350**.621 | **968.–** |
| Slave clock, minute pulse 12...60 V | 71.**350**.421 | **399.–** | 71.**350**.521 | **479.–** | 71.**350**.621 | **569.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**350**.421 | **604.–** | 72.**350**.521 | **684.–** | 72.**350**.621 | **774.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**350**.421 | **789.–** | 74.**350**.521 | **869.–** | 74.**350**.621 | **959.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**350**.421 | **479.–** | 81.**350**.521 | **559.–** | 81.**350**.621 | **649.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | 84.**350**.421 | **599.–** | 84.**350**.521 | **679.–** | 84.**350**.621 | **769.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**350**.421 | **638.–** | 85.**350**.521 | **718.–** | 85.**350**.621 | **808.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | 91.**350**.421 | **709.–** | 91.**350**.521 | **789.–** | 91.**350**.621 | **879.–** |

| Options | 420 mm Suffix | Surcharge € each | 520 mm Suffix | Surcharge € each | 620 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** | **-06** | **none** | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **80.–** | **-54** | **80.–** | **-54** | **80.–** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Large space
analog
single face

Type series **350**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

**Outdoor clocks resistant to thrown balls**
see pages 162 and 163.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## double face, indoor

**Large space**
analog
double face

Type series
**352**

71.**352**.512 shown

Large spaces call for large clocks! Extremely sturdy clocks with **solid, industrial grade metal cases**. Doubt-free reading of the exact time from afar – at any time.

81.**352**.513 **-06**

▲ Ceiling mount double bracket design and case enamelled in metallic dark gun metal (DB703) as an option

Tube version for suspension from the ceiling and red "Railway Station Clock" style second hand (option) ▶

74.**352**.614 **-41**

### Case
- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, standard bracket length cir. 210 mm, or sturdy metal tube suspension from the ceiling, tube length cir. 1000 mm. On request, custom length available optionally.
As an option, available with lugs for suspension by ropes or chains.

### Front glasses
Flat shock-resistant Plexiglas® XT (PMMA).

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Faces
High distinction white metal with large black Arabic numerals for easy, doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm and 620 mm respectively. Faces printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands according to DIN 41 092
Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – that's it!

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Large space**
analog
double face

Type series
**352**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| Clock type | Face diameter ▶ | 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**352**.412 | **965.–** | 21.**352**.512 | **1,125.–** | 21.**352**.612 | **1,305.–** |
| | ceiling | 21.**352**.413 | **965.–** | 21.**352**.513 | **1,125.–** | 21.**352**.613 | **1,305.–** |
| | tube | 21.**352**.414 | **965.–** | 21.**352**.514 | **1,125.–** | 21.**352**.614 | **1,305.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | wall | 51.**352**.412 | **1,189.–** | 51.**352**.512 | **1,349.–** | 51.**352**.612 | **1,529.–** |
| | ceiling | 51.**352**.413 | **1,189.–** | 51.**352**.513 | **1,349.–** | 51.**352**.613 | **1,529.–** |
| | tube | 51.**352**.414 | **1,189.–** | 51.**352**.514 | **1,349.–** | 51.**352**.614 | **1,529.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | wall | 52.**352**.412 | **1,228.–** | 52.**352**.512 | **1,388.–** | 52.**352**.612 | **1,568.–** |
| | ceiling | 52.**352**.413 | **1,228.–** | 52.**352**.513 | **1,388.–** | 52.**352**.613 | **1,568.–** |
| | tube | 52.**352**.414 | **1,228.–** | 52.**352**.514 | **1,388.–** | 52.**352**.614 | **1,568.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**352**.412 | **869.–** | 71.**352**.512 | **1,029.–** | 71.**352**.612 | **1,209.–** |
| | ceiling | 71.**352**.413 | **869.–** | 71.**352**.513 | **1,029.–** | 71.**352**.613 | **1,209.–** |
| | tube | 71.**352**.414 | **869.–** | 71.**352**.514 | **1,029.–** | 71.**352**.614 | **1,209.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**352**.412 | **1,279.–** | 72.**352**.512 | **1,439.–** | 72.**352**.612 | **1,619.–** |
| | ceiling | 72.**352**.413 | **1,279.–** | 72.**352**.513 | **1,439.–** | 72.**352**.613 | **1,619.–** |
| | tube | 72.**352**.414 | **1,279.–** | 72.**352**.514 | **1,439.–** | 72.**352**.614 | **1,619.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**352**.412 | **1,649.–** | 74.**352**.512 | **1,809.–** | 74.**352**.612 | **1,989.–** |
| | ceiling | 74.**352**.413 | **1,649.–** | 74.**352**.513 | **1,809.–** | 74.**352**.613 | **1,989.–** |
| | tube | 74.**352**.414 | **1,649.–** | 74.**352**.514 | **1,809.–** | 74.**352**.614 | **1,989.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.**352**.412 | **939.–** | 81.**352**.512 | **1,099.–** | 81.**352**.612 | **1,279.–** |
| | ceiling | 81.**352**.413 | **939.–** | 81.**352**.513 | **1,099.–** | 81.**352**.613 | **1,279.–** |
| | tube | 81.**352**.414 | **939.–** | 81.**352**.514 | **1,099.–** | 81.**352**.614 | **1,279.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | wall | 84.**352**.412 | **1,089.–** | 84.**352**.512 | **1,249.–** | 84.**352**.612 | **1,429.–** |
| | ceiling | 84.**352**.413 | **1,089.–** | 84.**352**.513 | **1,249.–** | 84.**352**.613 | **1,429.–** |
| | tube | 84.**352**.414 | **1,089.–** | 84.**352**.514 | **1,249.–** | 84.**352**.614 | **1,429.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**352**.412 | **1,128.–** | 85.**352**.512 | **1,288.–** | 85.**352**.612 | **1,468.–** |
| | ceiling | 85.**352**.413 | **1,128.–** | 85.**352**.513 | **1,288.–** | 85.**352**.613 | **1,468.–** |
| | tube | 85.**352**.414 | **1,128.–** | 85.**352**.514 | **1,288.–** | 85.**352**.614 | **1,468.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**352**.412 | **1,199.–** | 91.**352**.512 | **1,359.–** | 91.**352**.612 | **1,539.–** |
| | ceiling | 91.**352**.413 | **1,199.–** | 91.**352**.513 | **1,359.–** | 91.**352**.613 | **1,539.–** |
| | tube | 91.**352**.414 | **1,199.–** | 91.**352**.514 | **1,359.–** | 91.**352**.614 | **1,539.–** |

| Options | 420 mm Suffix | Surcharge € each | 520 mm Suffix | Surcharge € each | 620 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** | **-06** | **none** | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains | **-30** | **none** | **-30** | **none** | **-30** | **none** |
| Custom length mounting fixture | **-31** | **on request** | **-31** | **on request** | **-31** | **on request** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** | **-41** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **150.–** | **-54** | **150.–** | **-54** | **150.–** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## double face, indoor

**Large space**
analog
double face

Type series
**352**

71.**352**.522 shown

Large spaces call for large clocks! Extremely sturdy clocks with **solid, industrial grade metal cases**. Doubt-free reading of the exact time from afar – at any time.

52.**352**.523 **-06**

▲ Ceiling mount double bracket design and case enamelled in metallic dark gun metal (DB703) as an option

74.**352**.624 **-41**

Tube version for suspension from the ceiling and red "Railway Station Clock" style second hand (option) ▶

### Case
- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic silver grey (RAL 9006) or, as an option, enamelled in dark gun metal (DB 703) or custom enamelled, as listed below.
Protection grade IP 40 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, standard bracket length cir. 210 mm, or sturdy metal tube suspension from the ceiling, tube length cir. 1000 mm. On request, custom length available optionally.
As an option, available with lugs for suspension by ropes or chains.

### Front glasses
Flat shock-resistant Plexiglas® XT (PMMA).

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Faces
High distinction white metal with large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm and 620 mm respectively. Faces printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands according to DIN 41 092
Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – that's it!

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Large space**
analog
double face

Type series
**352**

| Clock type | Face diameter ▶ | 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**352**.422 | **965.–** | 21.**352**.522 | **1,125.–** | 21.**352**.622 | **1,305.–** |
| | ceiling | 21.**352**.423 | **965.–** | 21.**352**.523 | **1,125.–** | 21.**352**.623 | **1,305.–** |
| | tube | 21.**352**.424 | **965.–** | 21.**352**.524 | **1,125.–** | 21.**352**.624 | **1,305.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | wall | 51.**352**.422 | **1,189.–** | 51.**352**.522 | **1,349.–** | 51.**352**.622 | **1,529.–** |
| | ceiling | 51.**352**.423 | **1,189.–** | 51.**352**.523 | **1,349.–** | 51.**352**.623 | **1,529.–** |
| | tube | 51.**352**.424 | **1,189.–** | 51.**352**.524 | **1,349.–** | 51.**352**.624 | **1,529.–** |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | wall | 52.**352**.422 | **1,228.–** | 52.**352**.522 | **1,388.–** | 52.**352**.622 | **1,568.–** |
| | ceiling | 52.**352**.423 | **1,228.–** | 52.**352**.523 | **1,388.–** | 52.**352**.623 | **1,568.–** |
| | tube | 52.**352**.424 | **1,228.–** | 52.**352**.524 | **1,388.–** | 52.**352**.624 | **1,568.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**352**.422 | **869.–** | 71.**352**.522 | **1,029.–** | 71.**352**.622 | **1,209.–** |
| | ceiling | 71.**352**.423 | **869.–** | 71.**352**.523 | **1,029.–** | 71.**352**.623 | **1,209.–** |
| | tube | 71.**352**.424 | **869.–** | 71.**352**.524 | **1,029.–** | 71.**352**.624 | **1,209.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**352**.422 | **1,279.–** | 72.**352**.522 | **1,439.–** | 72.**352**.622 | **1,619.–** |
| | ceiling | 72.**352**.423 | **1,279.–** | 72.**352**.523 | **1,439.–** | 72.**352**.623 | **1,619.–** |
| | tube | 72.**352**.424 | **1,279.–** | 72.**352**.524 | **1,439.–** | 72.**352**.624 | **1,619.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**352**.422 | **1,649.–** | 74.**352**.522 | **1,809.–** | 74.**352**.622 | **1,989.–** |
| | ceiling | 74.**352**.423 | **1,649.–** | 74.**352**.523 | **1,809.–** | 74.**352**.623 | **1,989.–** |
| | tube | 74.**352**.424 | **1,649.–** | 74.**352**.524 | **1,809.–** | 74.**352**.624 | **1,989.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.**352**.422 | **939.–** | 81.**352**.522 | **1,099.–** | 81.**352**.622 | **1,279.–** |
| | ceiling | 81.**352**.423 | **939.–** | 81.**352**.523 | **1,099.–** | 81.**352**.623 | **1,279.–** |
| | tube | 81.**352**.424 | **939.–** | 81.**352**.524 | **1,099.–** | 81.**352**.624 | **1,279.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | wall | 84.**352**.422 | **1,089.–** | 84.**352**.522 | **1,249.–** | 84.**352**.622 | **1,429.–** |
| | ceiling | 84.**352**.423 | **1,089.–** | 84.**352**.523 | **1,249.–** | 84.**352**.623 | **1,429.–** |
| | tube | 84.**352**.424 | **1,089.–** | 84.**352**.524 | **1,249.–** | 84.**352**.624 | **1,429.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**352**.422 | **1,128.–** | 85.**352**.522 | **1,288.–** | 85.**352**.622 | **1,468.–** |
| | ceiling | 85.**352**.423 | **1,128.–** | 85.**352**.523 | **1,288.–** | 85.**352**.623 | **1,468.–** |
| | tube | 85.**352**.424 | **1,128.–** | 85.**352**.524 | **1,288.–** | 85.**352**.624 | **1,468.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.**352**.422 | **1,199.–** | 91.**352**.522 | **1,359.–** | 91.**352**.622 | **1,539.–** |
| | ceiling | 91.**352**.423 | **1,199.–** | 91.**352**.523 | **1,359.–** | 91.**352**.623 | **1,539.–** |
| | tube | 91.**352**.424 | **1,199.–** | 91.**352**.524 | **1,359.–** | 91.**352**.624 | **1,539.–** |

| Options | 420 mm Suffix | Surcharge € each | 520 mm Suffix | Surcharge € each | 620 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **none** | **-06** | **none** | **-06** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains | **-30** | **none** | **-30** | **none** | **-30** | **none** |
| Custom length mounting fixture | **-31** | **on request** | **-31** | **on request** | **-31** | **on request** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** | **-41** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **150.–** | **-54** | **150.–** | **-54** | **150.–** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## flush-mounted in walls, indoor

**Large space**
analog
flush-mounted

Type series
**369**

72.**369**.510 shown

Clocks of this type series are excellently suited for all applications requiring large clocks with **solid, industrial grade metal cases** mounted flush with a wall surface.

Also available in a version resistant to thrown balls, according to DIN 18032, part 3.

72.**369**.510 **-22**

▲ Clock cases made of stainless steel V4A, blasted and varnished (optional) are resistant to saline or chlorous media. Excellently suited for permanent use in public swimming pools.

### Case
- Faceplate cir. 460 x 460 mm
- Faceplate cir. 560 x 560 mm
- Faceplate cir. 660 x 660 mm

very sturdy metal case for flush mounting in walls, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below. A stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, is available as an option. Protection grade IP 40 (EN 60 529).

### Mounting
These clocks are to be mounted flush with the wall surface and require a recess of (W x H x D)
- cir. 406 x 406 x 80 mm
- cir. 506 x 506 x 80 mm
- cir. 606 x 606 x 80 mm.

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Clocks of this type series are also available resistant to thrown balls and thus suitable for schools, gymnasiums and other sporting facilities. Very sturdy metal case with 6 mm two-ply laminated mineral safety glass. These clocks conform to German Industry Standard and are certified and labelled "resistant to thrown balls according to DIN 18032, part 3".

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with large black Arabic numerals for easy, doubt-free reading even over longer distances. Visible print diameters are cir. 335 mm, 420 mm, and 503 mm respectively. Face printed according to DIN 41 091.

### Hands:
Black bar-type hour and minute hands.
Red second hand on minute/second pulse slave clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V4A + varnish (option)**
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

**Large space**
analog
flush-mounted

Type series
**369**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| Clock type ▼ Face dimensions | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.**369**.410 | **695.–** | 52.**369**.510 | **868.–** | 52.**369**.610 | **978.–** |
| Slave clock, minute pulse 12...60 V | 71.**369**.410 | **449.–** | 71.**369**.510 | **529.–** | 71.**369**.610 | **649.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**369**.410 | **654.–** | 72.**369**.510 | **734.–** | 72.**369**.610 | **854.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**369**.410 | **839.–** | 74.**369**.510 | **919.–** | 74.**369**.610 | **1,039.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**369**.410 | **468.–** | 81.**369**.510 | **609.–** | 81.**369**.610 | **719.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.**369**.410 | **626.–** | 85.**369**.510 | **768.–** | 85.**369**.610 | **878.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.**369**.410 | **633.–** | 91.**369**.510 | **839.–** | 91.**369**.610 | **949.–** |

| Options | 400 x 400 mm Suffix | Surcharge € each | 500 x 500 mm Suffix | Surcharge € each | 600 x 600 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **34.–** | **-05** | **40.–** | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **34.–** | **-06** | **40.–** | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V4A, blasted and varnished | **-22** | **on request** | **-22** | **on request** | **-22** | **on request** |
| Custom logo on clock face | **-47** | **on request** | **-47** | **on request** | **-47** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **80.–** | **-54** | **80.–** | **-54** | **80.–** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V4A + clear varnish | **-22** |

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## flush-mounted in walls, indoor

**Large space**
analog
flush-mounted

Type series
**369**

71.**369**.520 shown

Clocks of this type series are excellently suited for all applications requiring large clocks with **solid, industrial grade metal cases** mounted flush with a wall surface.

Also available in a version resistant to thrown balls, according to DIN 18032, part 3.

72.**369**.520 **-05**

▲ Case enamelled in metallic silver grey (RAL 9006) available as an option

## Case

- Faceplate cir. 460 x 460 mm
- Faceplate cir. 560 x 560 mm
- Faceplate cir. 660 x 660 mm

very sturdy metal case for flush mounting in walls, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below. A stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, is available as an option. Protection grade IP 40 (EN 60 529).

## Mounting

These clocks are to be mounted flush with the wall surface and require a recess of (W x H x D)

- cir. 406 x 406 x 80 mm
- cir. 506 x 506 x 80 mm
- cir. 606 x 606 x 80 mm.

## Resistance to thrown balls acc. to DIN 18 032, part 3 (option)

Clocks of this type series are also available resistant to thrown balls and thus suitable for schools, gymnasiums and other sporting facilities. Very sturdy metal case with 6 mm two-ply laminated mineral safety glass. These clocks conform to German Industry Standard and are certified and labelled "resistant to thrown balls according to DIN 18032, part 3".

## Front glass

Flat shock-resistant Plexiglas® XT (PMMA) as standard.

## Packaging (option)

As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

## Face

High distinction white metal with large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible print diameters are cir. 335 mm, 420 mm, and 503 mm respectively. Face printed according to DIN 41 091.

## Hands

Pointed black bar-type hour and minute hands according to DIN 41 092.

Red second hand on minute/second pulse slave clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V4A + varnish (option)**
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

**Large space**
analog
flush-mounted

Type series
**369**

| Clock type ▶ Face dimensions | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.**369**.420 | **695.–** | 52.**369**.520 | **868.–** | 52.**369**.620 | **978.–** |
| Slave clock, minute pulse 12...60 V | 71.**369**.420 | **449.–** | 71.**369**.520 | **529.–** | 71.**369**.620 | **649.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**369**.420 | **654.–** | 72.**369**.520 | **734.–** | 72.**369**.620 | **854.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**369**.420 | **839.–** | 74.**369**.520 | **919.–** | 74.**369**.620 | **1,039.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**369**.420 | **468.–** | 81.**369**.520 | **609.–** | 81.**369**.620 | **719.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.**369**.420 | **626.–** | 85.**369**.520 | **768.–** | 85.**369**.620 | **878.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.**369**.420 | **633.–** | 91.**369**.520 | **839.–** | 91.**369**.620 | **949.–** |

| Options | 400 x 400 mm Suffix | Surcharge € each | 500 x 500 mm Suffix | Surcharge € each | 600 x 600 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **34.–** | **-05** | **40.–** | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **34.–** | **-06** | **40.–** | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V4A, blasted and varnished | **-22** | **on request** | **-22** | **on request** | **-22** | **on request** |
| Custom logo on clock face | **-47** | **on request** | **-47** | **on request** | **-47** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **80.–** | **-54** | **80.–** | **-54** | **80.–** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |

## Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V4A + clear varnish | **-22** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces

## on-wall mounting, indoor

**Large space**
analog
single face

Type series
**370**

21.**370**.511 shown

Clocks of this type series are excellently suited for all applications requiring large clocks with **solid, industrial grade metal cases** combined with a doubt-free readability.

They are also available "resistant to thrown balls" according to DIN 18032, part 3.

21.**370**.511 **-22**

▲ Clock cases made of stainless steel V4A, blasted and varnished (optional) are resistant to saline or chlorous media. Excellently suited for permanent use in public swimming pools.

### Case
- cir. 400 x 400 mm
- cir. 500 x 500 mm
- cir. 600 x 600 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, custom enamelled, as listed below. A stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) with a matted finish or a stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, are available as options. Protection grade IP 40 (EN 60 529).

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Clocks of this type series are also available resistant to thrown balls and thus suitable for schools, gymnasiums and other sporting facilities. Very sturdy metal case with 6 mm two-ply laminated mineral safety glass. These clocks conform to German Industry Standard and are certified and labelled "resistant to thrown balls according to DIN 18 032, part 3".

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with large black Arabic numerals for easy, doubt-free reading even over longer distances. Visible print diameters are 335 mm, 420 mm, and 503 mm respectively. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands.
Red second hand on synchronous clocks (**21**.xxx), slave clocks with minute/second pulse (**72**.xxx) and slave clocks with synchronous second hands (**74**.xxx) only.

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

### Stainless steel V4A + varnish (option)
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

**Large space**
analog
single face

Type series
**370**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| Clock type ▶ Face dimensions | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.370.411 | 365.– | 21.370.511 | 445.– | 21.370.611 | 565.– |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | 51.370.411 | 358.– | 51.370.511 | 729.– | 51.370.611 | 839.– |
| DCF77 radio controlled clock, mains operated 230 V AC[2)] | 52.370.411 | 436.– | 52.370.511 | 768.– | 52.370.611 | 878.– |
| Slave clock, minute pulse 12...60 V | 71.370.411 | 349.– | 71.370.511 | 429.– | 71.370.611 | 549.– |
| Slave clock, minute/second pulse 12/24 V | 72.370.411 | 554.– | 72.370.511 | 634.– | 72.370.611 | 754.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.370.411 | 739.– | 74.370.511 | 819.– | 74.370.611 | 939.– |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.370.411 | 368.– | 81.370.511 | 509.– | 81.370.611 | 619.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | 84.370.411 | 466.– | 84.370.511 | 629.– | 84.370.611 | 739.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | 85.370.411 | 526.– | 85.370.511 | 668.– | 85.370.611 | 778.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | 91.370.411 | 533.– | 91.370.511 | 739.– | 91.370.611 | 849.– |

| Options | 400 x 400 mm Suffix | Surcharge € each | 500 x 500 mm Suffix | Surcharge € each | 600 x 600 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 34.– | -05 | 40.– | -05 | 49.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 34.– | -06 | 40.– | -06 | 49.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | 390.– | -20 | 450.– | -20 | 490.– |
| Case stainless steel V4A, blasted and varnished | -22 | 550.– | -22 | 610.– | -22 | 650.– |
| Custom logo on clock face | -47 | on request | -47 | on request | -47 | on request |
| Packaging against dust and spray (IP 54) | -54 | 80.– | -54 | 80.– | -54 | 80.– |
| Resistance to thrown balls acc. to DIN 18032, part 3 | -59 | 169.– | -59 | 169.– | -59 | 169.– |
| External DCF77 receiving aerial (cannot be added later) | -60 | 149.– | fitted as standard | | fitted as standard | |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | -05 |
| dark gun metal DB 703 | -06 |
| custom enamelled | -10 |
| stainless steel V2A | -20 |
| stainless steel V4A + clear varnish | -22 |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces

## on-wall mounting, indoor

**Large space**
analog
single face

Type series
**370**

21.**370**.521 shown

Clocks of this type series are excellently suited for all applications requiring large clocks with **solid, industrial grade metal cases** combined with a doubt-free readability.

They are also available "resistant to thrown balls" according to DIN 18032, part 3.

74.**370**.521 **-06 -40**

▲ Case enamelled dark gun metal (DB703) and red "Railway Station Clock" style second hand available as options

### Case
- cir. 400 x 400 mm
- cir. 500 x 500 mm
- cir. 600 x 600 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, custom enamelled, as listed below. A stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) with a matted finish or a stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, are available as options. Protection grade IP 40 (EN 60 529).

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Clocks of this type series are also available resistant to thrown balls and thus suitable for schools, gymnasiums and other sporting facilities. Very sturdy metal case with 6 mm two-ply laminated mineral safety glass. These clocks conform to German Industry Standard and are certified and labelled "resistant to thrown balls according to DIN 18 032, part 3".

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Face
High distinction white metal with large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible print diameters are 335 mm, 420 mm, and 503 mm respectively. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands according to DIN 41 092.

Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

### Stainless steel V4A + varnish (option)
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

| Clock type (Face dimensions ▶) | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 V AC/50 Hz | 21.**370**.421 | **365.–** | 21.**370**.521 | **445.–** | 21.**370**.621 | **565.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | 51.**370**.421 | **358.–** | 51.**370**.521 | **729.–** | 51.**370**.621 | **839.–** |
| DCF77 radio controlled clock, mains operated 230 V AC[2)] | 52.**370**.421 | **436.–** | 52.**370**.521 | **768.–** | 52.**370**.621 | **878.–** |
| Slave clock, minute pulse 12...60 V | 71.**370**.421 | **349.–** | 71.**370**.521 | **429.–** | 71.**370**.621 | **549.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**370**.421 | **554.–** | 72.**370**.521 | **634.–** | 72.**370**.621 | **754.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**370**.421 | **739.–** | 74.**370**.521 | **819.–** | 74.**370**.621 | **939.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**370**.421 | **368.–** | 81.**370**.521 | **509.–** | 81.**370**.621 | **619.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | 84.**370**.421 | **466.–** | 84.**370**.521 | **629.–** | 84.**370**.621 | **739.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | 85.**370**.421 | **526.–** | 85.**370**.521 | **668.–** | 85.**370**.621 | **778.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | 91.**370**.421 | **533.–** | 91.**370**.521 | **739.–** | 91.**370**.621 | **849.–** |

| Options | 400 x 400 mm Suffix | Surcharge € each | 500 x 500 mm Suffix | Surcharge € each | 600 x 600 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **34.–** | **-05** | **40.–** | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **34.–** | **-06** | **40.–** | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **390.–** | **-20** | **450.–** | **-20** | **490.–** |
| Case stainless steel V4A, blasted and varnished | **-22** | **550.–** | **-22** | **610.–** | **-22** | **650.–** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| Custom logo on clock face | **-47** | **on request** | **-47** | **on request** | **-47** | **on request** |
| Packaging against dust and spray (IP 54) | **-54** | **80.–** | **-54** | **80.–** | **-54** | **80.–** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |
| External DCF77 receiving aerial (cannot be added later) | **-60** | **149.–** | **fitted as standard** | | **fitted as standard** | |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V2A | **-20** |
| stainless steel V4A + clear varnish | **-22** |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Large space
analog
single face

Type series
**370**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## double face, indoor

**Large space**
analog
double face

Type series
**372**

21.**372**.512 shown

Double face indoor clocks with **solid, industrial grade metal cases** with sturdy wall brackets or suspended from the ceiling, shock-resistant Plexiglas® XT front glasses.
The best decision for a reliable and durable product!

21.**372**.512 **-22**

Clock cases made of stainless steel V4A, blasted and varnished (optional) are resistant to saline or chlorous media. Excellently suited for permanent use in public swimming pools.

### Case
- cir. 400 x 400 mm
- cir. 500 x 500 mm
- cir. 600 x 600 mm

very sturdy metal case enamelled white (RAL 9016). Optionally, at a surcharge, custom enamelled, as listed below. A stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) with a matted finish or a stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, are available as options. Protection grade IP 40 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, enamelled white, standard bracket length cir. 250 mm. Also available with lugs for suspension by ropes or chains as an option for larger ceiling heights.

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA).

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Faces
High distinction white metal with large black Arabic numerals for easy, doubt-free reading even over longer distances. Visible print diameters are 335 mm, 420 mm, and 503 mm respectively. Faces printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands.

Red second hand on synchronous clocks (**21**.xxx), slave clocks with minute/second pulse (**72**.xxx) and slave clocks with synchronous second hands (**74**.xxx) only.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – that's it!

**Plexiglas® XT**
Plexiglas® XT is i. a. suited for use in food-processing plants.

**Stainless steel V2A (option)**
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

**Stainless steel V4A + varnish (option)**
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

**Large space**
analog
double face

Type series
**372**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| Clock type / Face dimensions ▶ / Mounting ▼ | | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.372.412 | 995.– | 21.372.512 | 1,175.– | 21.372.612 | 1,385.– |
| | ceiling | 21.372.413 | 995.– | 21.372.513 | 1,175.– | 21.372.613 | 1,385.– |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | wall | 51.372.412 | 1,219.– | 51.372.512 | 1,399.– | 51.372.612 | 1,650.– |
| | ceiling | 51.372.413 | 1,219.– | 51.372.513 | 1,399.– | 51.372.613 | 1,650.– |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | wall | 52.372.412 | 1,258.– | 52.372.512 | 1,438.– | 52.372.612 | 1,689.– |
| | ceiling | 52.372.413 | 1,258.– | 52.372.513 | 1,438.– | 52.372.613 | 1,689.– |
| Slave clock, minute pulse 12...60 V | wall | 71.372.412 | 899.– | 71.372.512 | 1,079.– | 71.372.612 | 1,289.– |
| | ceiling | 71.372.413 | 899.– | 71.372.513 | 1,079.– | 71.372.613 | 1,289.– |
| Slave clock, minute/second pulse 12/24 V | wall | 72.372.412 | 1,309.– | 72.372.512 | 1,489.– | 72.372.612 | 1,699.– |
| | ceiling | 72.372.413 | 1,309.– | 72.372.513 | 1,489.– | 72.372.613 | 1,699.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.372.412 | 1,679.– | 74.372.512 | 1,859.– | 74.372.612 | 2,069.– |
| | ceiling | 74.372.413 | 1,679.– | 74.372.513 | 1,859.– | 74.372.613 | 2,069.– |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.372.412 | 969.– | 81.372.512 | 1,149.– | 81.372.612 | 1,359.– |
| | ceiling | 81.372.413 | 969.– | 81.372.513 | 1,149.– | 81.372.613 | 1,359.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | wall | 84.372.412 | 1,119.– | 84.372.512 | 1,299.– | 84.372.612 | 1,509.– |
| | ceiling | 84.372.413 | 1,119.– | 84.372.513 | 1,299.– | 84.372.613 | 1,509.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.372.412 | 1,158.– | 85.372.512 | 1,338.– | 85.372.612 | 1,548.– |
| | ceiling | 85.372.413 | 1,158.– | 85.372.513 | 1,338.– | 85.372.613 | 1,548.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.372.412 | 1,229.– | 91.372.512 | 1,409.– | 91.372.612 | 1,619.– |
| | ceiling | 91.372.413 | 1,229.– | 91.372.513 | 1,409.– | 91.372.613 | 1,619.– |

| Options | 400x400mm Suffix | Surcharge € each | 500x500mm Suffix | Surcharge € each | 600x600mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 82.– | -05 | 96.– | -05 | 118.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 82.– | -06 | 96.– | -06 | 118.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | on request | -20 | on request | -20 | on request |
| Case stainless steel V4A, blasted and varnished | -22 | on request | -22 | on request | -22 | on request |
| Case with lugs for suspension by ropes or chains | -30 | on request | -30 | on request | -30 | on request |
| Custom logo on clock face | -47 | on request | -47 | on request | -47 | on request |
| Packaging against dust and spray (IP 54) | -54 | 150.– | -54 | 150.– | -54 | 150.– |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## double face, indoor

**Large space**
analog
double face

Type series
**372**

21.**372**.522 shown

Double face indoor clocks with **solid, industrial grade metal cases** with sturdy wall brackets or suspended from the ceiling, shock-resistant Plexiglas® XT front glasses.
The best decision for a reliable and durable product!

74.**372**.522 **-06 -41**

▲ Case enamelled dark gun metal (DB703) and red "Railway Station Clock" style second hand available as options

### Case
- cir. 400 x 400 mm
- cir. 500 x 500 mm
- cir. 600 x 600 mm

very sturdy metal case enamelled white (RAL 9016). Optionally, at a surcharge, custom enamelled, as listed below. A stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A) with a matted finish or a stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, are available as options. Protection grade IP 40 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, enamelled white, standard bracket length cir. 250 mm. Also available with lugs for suspension by ropes or chains as an option for larger ceiling heights.

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA).

### Packaging (option)
As an option, clockwork packaged to protect it against blown dust and/or sprayed water (IP 54 according to EN 60 529) is available.

### Faces
High distinction white metal with large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible print diameters are 335 mm, 420 mm, and 503 mm respectively. Faces printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands according to DIN 41 092.

Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

### Double face clocks
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – that's it!

### Plexiglas® XT
Plexiglas® XT is i. a. suited for use in food-processing plants.

### Stainless steel V2A (option)
Due to its components stainless steel V2A is an alloy almost completely impervious to detergents and disinfectants and is therefore excellently suited for the use in the food and pharmaceutical industries, in kitchens, laboratories and other clean rooms. And it looks good into the bargain, as well!

### Stainless steel V4A + varnish (option)
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

**Large space**
analog
double face

Type series
**372**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| Clock type / Face dimensions ▶ / Mounting ▼ | | 400 x 400 mm Item No. | € each | 500 x 500 mm Item No. | € each | 600 x 600 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.372.422 | 995.– | 21.372.522 | 1,175.– | 21.372.622 | 1,385.– |
| | ceiling | 21.372.423 | 995.– | 21.372.523 | 1,175.– | 21.372.623 | 1,385.– |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V[1) 2)] | wall | 51.372.422 | 1,219.– | 51.372.522 | 1,399.– | 51.372.622 | 1,650.– |
| | ceiling | 51.372.423 | 1,219.– | 51.372.523 | 1,399.– | 51.372.623 | 1,650.– |
| DCF77 radio controlled clock, mains operated 230 VAC[2)] | wall | 52.372.422 | 1,258.– | 52.372.522 | 1,438.– | 52.372.622 | 1,689.– |
| | ceiling | 52.372.423 | 1,258.– | 52.372.523 | 1,438.– | 52.372.623 | 1,689.– |
| Slave clock, minute pulse 12...60 V | wall | 71.372.422 | 899.– | 71.372.522 | 1,079.– | 71.372.622 | 1,289.– |
| | ceiling | 71.372.423 | 899.– | 71.372.523 | 1,079.– | 71.372.623 | 1,289.– |
| Slave clock, minute/second pulse 12/24 V | wall | 72.372.422 | 1,309.– | 72.372.522 | 1,489.– | 72.372.622 | 1,699.– |
| | ceiling | 72.372.423 | 1,309.– | 72.372.523 | 1,489.– | 72.372.623 | 1,699.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.372.422 | 1,679.– | 74.372.522 | 1,859.– | 74.372.622 | 2,069.– |
| | ceiling | 74.372.423 | 1,679.– | 74.372.523 | 1,859.– | 74.372.623 | 2,069.– |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.372.422 | 969.– | 81.372.522 | 1,149.– | 81.372.622 | 1,359.– |
| | ceiling | 81.372.423 | 969.– | 81.372.523 | 1,149.– | 81.372.623 | 1,359.– |
| Slave clock, *AirPort24* radio controlled telegram, battery operated 2 x 1.5 V[1)] | wall | 84.372.422 | 1,119.– | 84.372.522 | 1,299.– | 84.372.622 | 1,509.– |
| | ceiling | 84.372.423 | 1,119.– | 84.372.523 | 1,299.– | 84.372.623 | 1,509.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.372.422 | 1,158.– | 85.372.522 | 1,338.– | 85.372.622 | 1,548.– |
| | ceiling | 85.372.423 | 1,158.– | 85.372.523 | 1,338.– | 85.372.623 | 1,548.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3)] | wall | 91.372.422 | 1,229.– | 91.372.522 | 1,409.– | 91.372.622 | 1,619.– |
| | ceiling | 91.372.423 | 1,229.– | 91.372.523 | 1,409.– | 91.372.623 | 1,619.– |

| Options | 400x400mm Suffix | Surcharge € each | 500x500mm Suffix | Surcharge € each | 600x600mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | -05 | 82.– | -05 | 96.– | -05 | 118.– |
| Case enamelled in metallic dark gun metal DB 703 | -06 | 82.– | -06 | 96.– | -06 | 118.– |
| Case custom enamelled | -10 | on request | -10 | on request | -10 | on request |
| Case stainless steel V2A, matted finish | -20 | on request | -20 | on request | -20 | on request |
| Case stainless steel V4A, blasted and varnished | -22 | on request | -22 | on request | -22 | on request |
| Case with lugs for suspension by ropes or chains | -30 | on request | -30 | on request | -30 | on request |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | -41 | on request | -41 | on request | -41 | on request |
| Custom logo on clock face | -47 | on request | -47 | on request | -47 | on request |
| Packaging against dust and spray (IP 54) | -54 | 150.– | -54 | 150.– | -54 | 150.– |

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## four faces, indoor

**Large space**
analog
four faces

Type series
**390**

71.**390**.415 shown

Clock cubes with **solid, industrial grade metal cases** for large halls or places of high publicity.
Always the correct time, exactly readable from any angle!

74.**390**.425 **-41**

▲ "Railway Station Clock" style second hand (option)

**Backlighted clock cubes**
for indoor and outdoor use see pages 176 and 177.

### Case
- edge length cir. 565 mm, with four square faces, cir. 425 x 425 mm

sturdy metal cube, enamelled in white (RAL 9016) as standard. Optionally, at a surcharge, enamelled in custom colours. A large hinged inspection flap on the top provides easy access for maintenance.
Protection grade IP 40 (EN 60 529).

### Mounting
This clock cube will usually be suspended from the ceiling by metal ropes or chains. Due to varying requirements, ropes or chains are to be procured locally.
Four ringbolts are provided on the top of the case.

### Front glasses
Flat shock-resistant Plexiglas® XT (PMMA).

### Faces
High distinction white metal with large black Arabic numerals or large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible face dimensions cir. 400 x 400 mm.
Faces printed according to DIN 41 091

### Hands
Black bar-type hour and minute hands.
Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Large space**
analog
four faces

Type series
**390**

**Clock cubes** come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

| Clock type | Arabic numerals Item No. | € each | Bar markings Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 V AC [1] | 52.**390**.415 | **1,695.–** | 52.**390**.425 | **1,695.–** |
| Slave clock, minute pulse 12...60 V | 71.**390**.415 | **1,398.–** | 71.**390**.425 | **1,398.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**390**.415 | **2,218.–** | 72.**390**.425 | **2,218.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**390**.415 | **2,958.–** | 74.**390**.425 | **2,958.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 81.**390**.415 | **1,495.–** | 81.**390**.425 | **1,495.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | 85.**390**.415 | **1,724.–** | 85.**390**.425 | **1,724.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.**390**.415 | **1,775.–** | 91.**390**.425 | **1,775.–** |

| Options | Arab. num. Suffix | Surcharge € each | Bar mark. Suffix | Surcharge € each |
|---|---|---|---|---|
| Cube custom enamelled | **-13** | **on request** | **-13** | **on request** |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

**Backlighted clock cubes**
for indoor and outdoor use see pages 176 and 177.

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Clocks for Large Spaces
## four faces, indoor

**Large space**
analog
four faces

Type series
**395**

74.**395**.525 **-16** shown

Clock cubes with **solid, industrial grade metal cases** for large halls or places of high publicity.
Always the correct time, exactly readable from any angle!

74.**395**.525 **-13 -16**

▲ Case custom enamelled (option)

**Backlighted clock cubes**
for indoor and outdoor use see pages 176 and 177.

### Case

- edge length cir. 500 mm, with four round faces, diameter cir. 400 mm
- edge length cir. 625 mm, with four round faces, diameter cir. 500 mm

sturdy metal cube, enamelled in white (RAL 9016) as standard. Optionally, at a surcharge, case and/or clock rims enamelled in custom colours. A large hinged inspection flap on the top provides easy access for maintenance. Protection grade IP 40 (EN 60 529).

### Mounting

This clock cube will usually be suspended from the ceiling by metal ropes or chains. Due to varying requirements, ropes or chains are to be procured locally.
Four ringbolts are provided on the top of the case.

### Front glasses

Domed shock-resistant Plexiglas® XT (PMMA). As an option, low reflectivity front glasses are available.

### Faces

High distinction white metal with large black Arabic numerals or large black DIN bar markings for easy, doubt-free reading even over longer distances. Visible face diameter cir. 400 mm and cir. 500 mm respectively.
Faces printed according to DIN 41 091

### Hands

Black bar-type hour and minute hands.
Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Large space**
analog
four faces

Type series
**395**

**Clock cubes** come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

| Clock type | Face diameter | Arabic numerals Item No. | € each | Bar markings Item No. | € each |
|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 400 mm | 52.395.415 | 2,195.– | 52.395.425 | 2,195.– |
| Slave clock, minute pulse 12...60 V | 400 mm | 71.395.415 | 1,898.– | 71.395.425 | 1,898.– |
| Slave clock, minute/second pulse 12/24 V | 400 mm | 72.395.415 | 2,718.– | 72.395.425 | 2,718.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 400 mm | 74.395.415 | 3,458.– | 74.395.425 | 3,458.– |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 400 mm | 81.395.415 | 1,995.– | 81.395.425 | 1,995.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 400 mm | 85.395.415 | 2,224.– | 85.395.425 | 2,224.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | 400 mm | 91.395.415 | 2,275.– | 91.395.425 | 2,275.– |

| Clock type | Face diameter | Arabic numerals Item No. | € each | Bar markings Item No. | € each |
|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 500 mm | 52.395.515 | 2,695.– | 52.395.525 | 2,695.– |
| Slave clock, minute pulse 12...60 V | 500 mm | 71.395.515 | 2,398.– | 71.395.525 | 2,398.– |
| Slave clock, minute/second pulse 12/24 V | 500 mm | 72.395.515 | 3,218.– | 72.395.525 | 3,218.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 500 mm | 74.395.515 | 3,958.– | 74.395.525 | 3,958.– |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 500 mm | 81.395.515 | 2,690.– | 81.395.525 | 2,690.– |
| Slave clock, *DCFport24* pulse telegram, mains operated 230 VAC | 500 mm | 83.395.515 | 2,590.– | 83.395.525 | 2,590.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 500 mm | 85.395.515 | 2,779.– | 85.395.525 | 2,779.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | 500 mm | 91.395.515 | 2,850.– | 91.395.525 | 2,850.– |

| Options | Arab. num. Suffix | Surcharge € each | Bar mark. Suffix | Surcharge € each |
|---|---|---|---|---|
| Cube custom enamelled | -13 | on request | -13 | on request |
| Clock rims custom enamelled | -14 | on request | -14 | on request |
| Clock rims enamelled in metallic dark gun metal DB 703 | -16 | none | -16 | none |
| Distinct red "Railway Station Clock" style second hands with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | -41 | on request | -41 | on request |
| Low reflectivity front glasses | -51 | 440.– | -51 | 440.– |

### Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

**Backlighted clock cubes**
for indoor and outdoor use see pages 176 and 177.

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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**Special clocks**
analog · digital
single and
double face

# Special clocks

*Whether you look for dust-, water- or vapour-proof clocks (acc. to IP grade 64), clocks for high temperatures in sauna cabins, pace clocks indicating split times or clocks for surgical operating rooms in hospitals or other "clean room" applications – on the following pages you will find clocks for all specific requirements ...*

# Wall Clocks

## waterproof, steam proof, dust proof

These clocks are packaged in waterproof, steam proof and dust proof cases and thus perfectly suitable for "critical" areas with blown dust and water thrown in sheets or other demanding environments.
They are not suitable for sauna cabins. Sauna clocks may be found on page 103 only.

### Case

■ cir. 300 mm diameter
white plastic case, dust- and water-proof according to IP 64 (EN 60 529).

### Front glass

Flat mineral glass, black sealing ring. Also available with shock-resistant Plexiglas® XT (option).

### Face

White face with large black Arabic numerals for easy, doubt-free reading even over longer distances.

### Hands

Black bar-type hour and minute hands, red second hand.

41.**420**.311 shown

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, battery operated 1.5 V | 41.**420**.311 | **59.–** |
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**420**.311 | **149.–** |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Shock-resistant Plexiglas® XT (instead of mineral glass) | **-53** | **29.–** |

**Indoor**
analog
single face

Type series
**420**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures.*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clock

## soundless, for relaxation rooms

**Indoor**
analog
single face

Type series
**423**

Wall clock in a wooden case with soundless Quartz clockwork and creeping second hand. Excellently suited for relaxation rooms within spa facilities (**not suitable for sauna cabins.** Sauna clocks may be found on page 103 only).

**Case**
- cir. 220 mm diameter

Ayous wood.
Protection grade IP 40 (EN 60 529).

**Front glass**
Domed mineral glass.

**Face**
Metal, enamelled white with large black Arabic numerals.

**Hands**
Black bar-type hour and minute hands, red second hand.

44.**423**.211 shown

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, soundless, battery operated 1.5 V | 44.**423**.211 | **115.–** |

- creeping second hand
- soundless clockwork



*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Wall Clocks

## heat resistant, for sauna cabins

Special clockworks and specially treated wooden cases facilitate professional use of these clocks in private or public saunas. Explicitly suited for the use in sauna cabins (up to cir. 110 °C).

### Case

- cir. 150 mm diameter
- cir. 220 mm diameter
- cir. 230 x 230 mm

Special Ayous wood will not crack even under most severe fluctuations of temperature and humidity. Protection grade IP 40 (EN 60 529).

### Front glass

Heat resistant mineral glass.

### Face

Metal, enamelled white with large black Arabic numerals.

### Hands

Black bar-type hour and minute hands, red second hand.

No second hand on 24 V minute pulse controlled slave clocks.

21.**425**.211 shown

| Clock type | Dimensions | Item No. | € each |
|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 150 mm diameter | 21.**425**.111 | **149.–** |
| Synchronous clock, mains operated 230 VAC/50 Hz | 220 mm diameter | 21.**425**.211 | **159.–** |
| Synchronous clock, mains operated 230 VAC/50 Hz | 230 x 230 mm | 21.**426**.211 | **159.–** |
| Slave clock, minute pulse 24 V | 220 mm diameter | 71.**425**.211 | **196.–** |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Custom logo on clock face (minimum order of 50) | **-47** | **on request** |

**Indoor**
analog
single face

Type series
**425**

Type series
**426**

21.**426**.211

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Training Clocks/Pace Clocks for indoors
## water protected, with seconds cross

**Indoor**
analog
single face

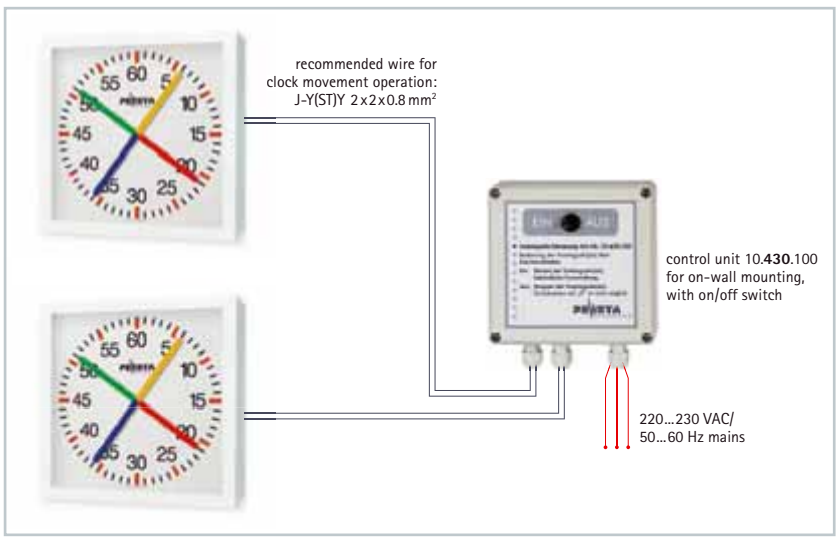
Type series
**430**

**Backlighted training clocks**
for indoors und outdoors see pages 174 and 175.

This kind of training/pace clock indicates split times during swim training/warm-up training. Times are taken by each swimmer individually. The 4-coloured seconds cross indicates the time elapsed, one complete turn corresponds to exactly 60 seconds.

For parallel operation of 2...4 training clocks, the slave clock type connected to the central control unit 10.**430**.100 is recommended. Thus an identical display (synchronous time) is always guaranteed on all training clocks connected.

Diagram shows
2 training clocks 71.**431**.611
with control unit 10.**430**.100



### Case
■ cir. 600 x 600 mm
very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below. A stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, is available as an option. Clock movement protected according to IP 54 (EN 60 529).

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Wrench-off-proof mounting fixture and two-ply laminated mineral safety glass, thus suitable for ball sports facilities when durably mounted on-wall.

### Clock types
- Quartz movement, battery operated (2 x 1.5 V "Alkaline" LR 20, included). **Portable, therefore suitable for mobile use.** ON/OFF switch on reverse side. With carrying handle. Setup on the edge of the pool. 2 pivoted feet ensure a firm position of clock on the ground. Or wall mounting.
- Quartz movement, mains operated 230 VAC. **Recommended for continuous operation and for durable, fixed on-wall position.** Wall mounting and fixed power supply only, incl. wrench-off-proof 3-point mounting fixture.
- Slave movement, pulse operated 24 V. To be operated by fixed connection to control unit 10.**430**.100 only. **Recommended for synchronized, parallel operation of up to 4 training clocks/pace clocks** 71.**430**.611 **in securely fixed positions.** Wall mounting only, incl. 3-point wrench-off-proof mounting fixture. Control unit 10.**430**.100 is required for operation.

42.**430**.611 **-22**

### Face
High distinction white metal with red/black second bars and black numerals for easy, doubt-free reading. Reading distance cir. 30 m.

### Hands
4-coloured seconds cross, intervals in second cycles.

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard

### Function
The (swim) training/pace clock can be used by any number of swimmers simultaneously.
The crossed second hands show the time elapsed in seconds.
The swimmer will wait for a maximum of 14 seconds until the next colour of the four second hands ("his" colour) reaches the 12-o'clock-position and will then memorise the colour of "his" hand.
Upon reaching the edge of the pool (after 1 or 2 laps) the time elapsed can be read according to the position of "his" second hand.

### Stainless steel V4A + varnish (option)
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

| Technical data | |
|---|---|
| Operating power (quartz clock type, battery operated) | 2 x 1.5 V Mono/LR 20 |
| Operating power (quartz clock type, mains operated) | 220 ... 230 VAC |
| Operating power (slave clock type, pulse operated) | 24 V second pulses |
| Duration of operation in permanent use (battery operated) | cir. 1,000 hours |
| Intervals | second cycles |
| Dial sections | 0 ... 60 |
| Reading distance | cir. 30 m |

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, battery operated 2 x 1.5 V | 41.**430**.611 | **749.–** |
| Quartz clock, mains operated 230 VAC | 42.**430**.611 | **769.–** |
| Slave clock, minute pulse 24 V (second cycles) | 71.**430**.611 | **615.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Control unit for up to 4 training clocks 71.**430**.611, operating power 220 ... 230 VAC/50 ... 60 Hz, ON/OFF switch | 10.**430**.100 | **295.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V4A, blasted and varnished | **-22** | **650.–** |
| Custom logo on clock face | **-47** | **on request** |
| Resistance to thrown balls acc. to DIN 18032, part 3 (types 42.**430**.611 and 71.**430**.611 only) | **-59** | **169.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |
| stainless steel V4A + clear varnish | **-22** |

Clock cases made of stainless steel V4A, matted and varnished (option), are resistant to saltwater and other media containing chlorine. They are therefore excellently suited for permanent use in public swimming pools.

**Indoor**
analog
single face

Type series
**430**

**Backlighted training clocks**
for indoors und outdoors see pages 174 and 175.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Training Clocks/Pace Clocks for indoors
## water protected, with minute and second hands

**Indoor**
analog
single face

Type series
**431**

41.**431**.611 shown

This kind of training/pace clock indicates split times during swim training/warm-up training. Times are taken by each swimmer individually. The clock indicates the elapsed time in minutes and seconds.

For parallel operation of 2...4 training clocks, the slave clock type connected to the central control unit 10.**430**.100 is recommended. Thus an identical display (synchronous time) is always guaranteed on all training clocks connected.

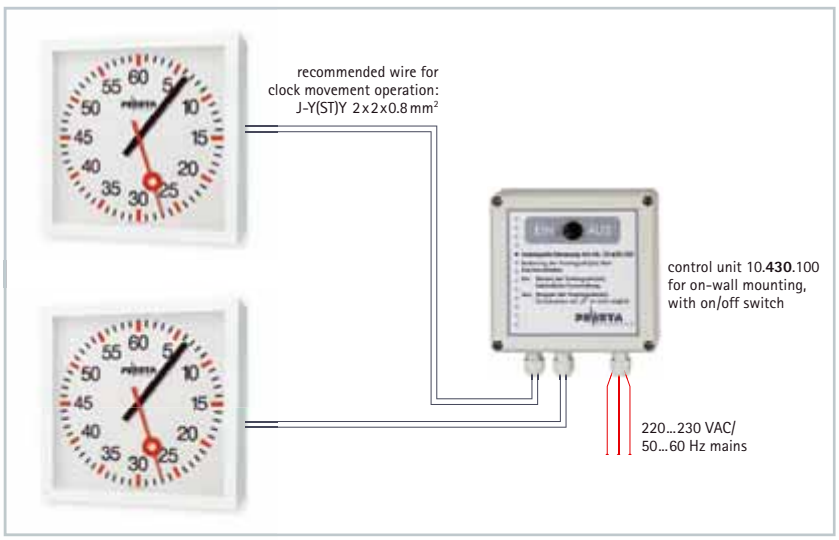



Diagram shows
2 training clocks 71.**431**.611
with control unit 10.**430**.100

## Case

■ cir. 600 x 600 mm
very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below. A stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, is available as an option. Clock movement protected according to IP 54 (EN 60 529).

## Resistance to thrown balls acc. to DIN 18 032, part 3 (option)

Wrench-off-proof mounting fixture and two-ply laminated mineral safety glass, thus suitable for ball sports facilities when durably mounted on-wall.

## Clock types

- Quartz movement, battery operated (2 x 1.5 V "Alkaline" LR 20, included). **Portable, therefore suitable for mobile use.** ON/OFF switch on reverse side. With carrying handle. Setup on the edge of the pool. 2 pivoted feet ensure a firm position of clock on the ground. Or wall mounting.
- Quartz movement, mains operated 230 VAC. **Recommended for continuous operation and for durable, fixed on-wall position.** Wall mounting and fixed power supply only, incl. wrench-off-proof 3-point mounting fixture.
- Slave movement, pulse operated 24 V. To be operated by fixed connection to control unit 10.**430**.100 only. **Recommended for synchronized, parallel operation of up to 4 training clocks/pace clocks** 71.**430**.611 **in securely fixed positions.** Wall mounting only, incl. 3-point wrench-off-proof mounting fixture. Control unit 10.**430**.100 is required for operation.

42.**431**.611 **-22**

## Face

High distinction white metal with red/black minute and second bars and black numerals for easy, doubt-free reading. Reading distance cir. 30 m.

## Hands

Black minute hand. Red second hand with "eye", intervals in second cycles.

## Front glass

Flat shock-resistant Plexiglas® XT (PMMA) as standard.

## Function

The (swim) training/pace clock can be used by any number of swimmers simultaneously.

The elapsed time is displayed in minutes and seconds.

The swimmer will wait for a maximum of 59 seconds until the second hand reaches the 12-o'clock-position and will then memorise the position of the minute hand.

Upon finishing a training round the time elapsed can be easily calculated (time indicated minus the minutes memorised.

## Stainless steel V4A + varnish (option)

V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

| Technical data | |
|---|---|
| Operating power (quartz clock type, battery operated) | 2 x 1.5 V Mono/LR 20 |
| Operating power (quartz clock type, mains operated) | 220 ... 230 VAC |
| Operating power (slave clock type, pulse operated) | 24 V minute/sec. pulses |
| Duration of operation in permanent use (battery operated) | cir. 1,000 hours |
| Intervals | second cycles |
| Dial sections | 0 ... 60 |
| Reading distance | cir. 30 m |

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, battery operated 2 x 1.5 V | 41.**431**.611 | **895.–** |
| Quartz clock, mains operated 230 VAC | 42.**431**.611 | **915.–** |
| Slave clock, minute pulse 24 V (second cycles) | 71.**431**.611 | **759.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Control unit for up to 4 training clocks 71.**431**.611, operating power 220 ... 230 VAC/50 ... 60 Hz, ON/OFF switch | 10.**430**.100 | **295.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V4A, blasted and varnished | **-22** | **650.–** |
| Custom logo on clock face | **-47** | **on request** |
| Resistance to thrown balls acc. to DIN 18032, part 3 (types 42.**431**.611 and 71.**431**.611 only) | **-59** | **169.–** |

## Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| ? custom enamelled | **-10** |
| stainless steel V4A + clear varnish | **-22** |

Clock cases made of stainless steel V4A, matted and varnished (option), are resistant to saltwater and other media containing chlorine. They are therefore excellently suited for permanent use in public swimming pools.

**Indoor**
analog
single face

Type series
**431**

# Training Clocks with stopwatch mode

## indoors, water protected, with minute and second hands

**Indoor**
analog
single face

Type series
**435**

Training clocks for sport training. Start/stop/reset/split time functions allow indication of elapsed time in minutes and seconds.

For parallel operation of 2...4 training clocks, the slave clock type connected to the central control unit 10.**435**.100 or 10.**435**.200 is recommended. Thus an identical display (synchronous time) is always guaranteed on all training clocks connected.

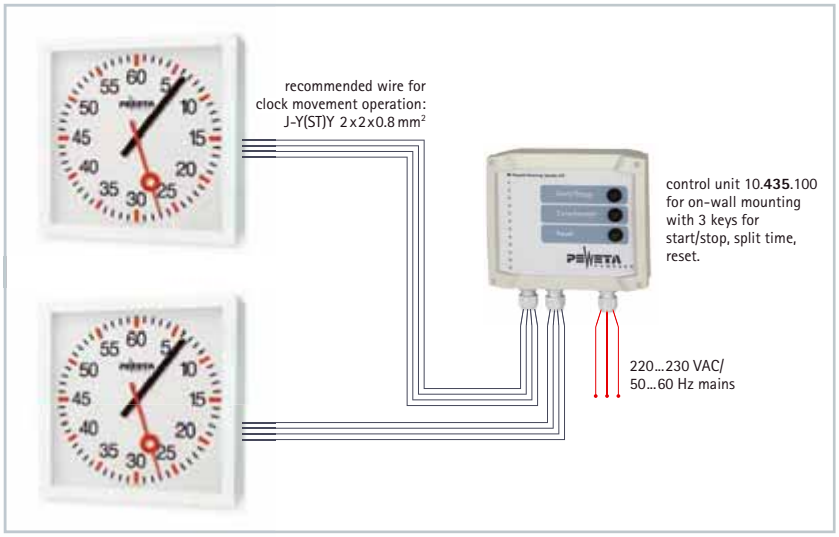



Diagram shows 2 training clocks 71.**435**.611 with control unit 10.**435**.100

**LED digital clocks with start/stop functions**

see pages 152 and 153.

### Case
- cir. 600 x 600 mm

very sturdy metal case, enamelled white (RAL 9016). Optionally, at a surcharge, enamelled in metallic silver grey (RAL 9006), in dark gun metal (DB 703) or custom enamelled, as listed below. A stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), blasted and additionally coated with a protective varnish, is available as an option. Clock movement protected according to IP 54 (EN 60 529).

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Wrench-off-proof mounting fixture and two-ply laminated mineral safety glass, thus suitable for schools, gymnasiums and other sporting facilities when durably mounted on-wall.

### Clock types
- Quartz movement, battery operated (2 x 1.5 V "Alkaline" LR 20, included). **Portable, therefore suitable for mobile use.**
  Shipment includes a hand-held remote with 3 buttons for start/stop, reset, split times, 2 m connection wire. With carrying handle. 2 pivoted feet ensure a firm position of clock on the ground. Or wall mounting.
- Quartz movement, mains operated 230 VAC
  **Recommended for durable on-wall mounting.**
  Shipment includes a radio control unit protected against dust and spray with 3 buttons for start/stop, reset, split times. Wall mounting and fixed power supply only, incl. wrench-off-proof 3-point mounting fixture.
- Slave movement, pulse operated 24 V. To be operated by control unit 10.435.**100** or 10.435.**200** only. **Recommended parallel operation of up to 4 training clocks.**
  Wall mounting only, incl. 3-point mounting fixture. Control unit 10.435.**100** or 10.435.**200** is required for operation (detached mounting point, fixed connection).

### Face
High distinction white metal with red/black minute and second bars and black numerals for easy, doubt-free reading. Reading distance cir. 30 m.

### Hands
Black minute hand. Red second hand with "eye", intervals in second cycles.

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

**Stainless steel V4A + varnish (option)**
V4A quality stainless steel with an additional coat of protective varnish is outstandingly resistant to acids and other chlorous media and is therefore particularly suited for public swimming pools as well as for the chemical industry.

| Technical data | |
|---|---|
| Operating power (quartz clock type, battery operated) | 2 x 1.5 V Mono/LR 20 |
| Operating power (quartz clock type, mains operated) | 220 ... 230 VAC |
| Operating power (slave clock type, pulse operated) | 24 V minute/sec. pulses |
| Duration of operation in permanent use (battery operated) | cir. 1,000 hours |
| Intervals | second cycles |
| Dial sections | 0 ... 60 |
| Reading distance | cir. 30 m |

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, battery operated 2 x 1.5 V, To be operated by **wire-bound control unit** | 41.**435**.611 | **1.298.–** |
| Quartz clock, mains operated 230 VAC, To be operated by **hand-held radio control unit** | 42.**435**.611 | **1.598.–** |
| Slave clock, minute/second pulse 12/24 V To be operated by **separate control unit** (see accessories) | 71.**435**.611 | **759.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Control unit for up to 4 training clocks 71.**435**.611, operating power 220 ... 230 VAC/50 ... 60 Hz, **stationary control** with with buttons for start/stop, reset, and split times | 10.**435**.100 | **695.–** |
| Control unit for up to 4 training clocks 71.**435**.611, operating power 220 ... 230 VAC/50 ... 60 Hz, **with hand-held radio control unit** (IP 54) for start/stop, reset, and split times | 10.**435**.200 | **1,095.–** |
| Additional hand-held radio control unit, battery operated, protected against dust and spray (IP 54), for Quartz clock 42.**435**.611 or control unit 10.**435**.200 | 02.**435**.111 | **195.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **49.–** |
| Case enamelled in metallic dark gun metal DB 703 | **-06** | **49.–** |
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V4A, blasted and varnished | **-22** | **650.–** |
| Custom logo on clock face | **-47** | **on request** |
| Resistance to thrown balls acc. to DIN 18032, part 3 (types 42.**435**.611 and 71.**435**.611 only) | **-59** | **169.–** |

42.**435**.611 **-22**

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| dark gun metal DB 703 | **-06** |
| custom enamelled | **-10** |
| stainless steel V4A + clear varnish | **-22** |

Clock cases made of stainless steel V4A, matted and varnished (option), are resistant to saltwater and other media containing chlorine. They are therefore excellently suited for permanent use in public swimming pools.

**Indoor**
analog
single face

Type series
**435**

**LED digital clocks with start/stop functions**
see pages 152 and 153.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Analog Clocks for In-Wall Mounting

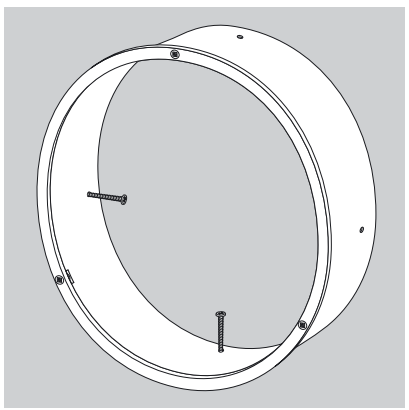
## ideal for surgical operating rooms and other clean rooms

**Indoor**
analog
flush-mounted

Type series
**460**

73.**460**.310 shown
for mounting in conventional brick-and-plaster walls

These round analog clocks with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.



Metal mounting frame 01.**460**.300
for in-wall mounting in conventional brick walls
(flush with tiles or plaster)

Clock 73.**460**.310 for in-wall mounting
with spring-clip attachment device 01.**460**.301
for stud-and-panel wall mounting

### Case
- cir. 301 mm diameter
- cir. 401 mm diameter

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock.

### Front glass
Flat mineral glass, 3 mm. Optionally treated for low reflectivity.

### Face
High distinction white metal with black Arabic numerals. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

## Indoor
analog
flush-mounted

Type series
**460**

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | | 301 mm diameter | 401 mm diameter |
|---|---|---|---|
| **With mounting frame** (conventional brick walls) | mounting frame diameter | cir. 301 mm | cir. 401 mm |
| | wall breakout diameter | cir. 301 mm | cir. 401 mm |
| | minimum depth | cir. 63 mm | cir. 63 mm |
| **With spring clips** (stud-and-panel walls) | clock case diameter | cir. 301 mm | cir. 401 mm |
| | wall breakout diameter | cir. 282 mm | cir. 382 mm |
| | minimum depth | cir. 60 mm | cir. 60 mm |

| Technical data | | 301 mm diameter | 401 mm diameter |
|---|---|---|---|
| **Face** | visible face diameter | cir. 250 mm | cir. 350 mm |
| | print diameter | cir. 240 mm | cir. 340 mm |

| Clock type | 301 mm diameter Item No. | € each | 401 mm diameter Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.460.310 | 880.– | 52.460.410 | 995.– |
| Slave clock, minute pulse 12…60 V | 71.460.310 | 688.– | 71.460.410 | 785.– |
| Slave clock, minute/second pulse 12/24 V | 72.460.310 | 873.– | 72.460.410 | 990.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.460.310 | 1.018.– | 73.460.410 | 1,135.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.460.310 | 1.058.– | 74.460.410 | 1,175.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.460.310 | 1.033.– | 75.460.410 | 1,150.– |
| Slave clock, *DCFport24* pulse telegram | 81.460.310 | 668.– | 81.460.410 | 785.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.460.310 | 826.– | 85.460.410 | 943.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.460.310 | 833.– | 91.460.410 | 950.– |

| **Mounting kits** (please order one frame or kit per clock) | 301 mm diameter Item No. | € each | 401 mm diameter Item No. | € each |
|---|---|---|---|---|
| Metal mounting frame for in-wall mounting in conventional brick walls (diameter x depth: 301 x 60 mm, 401 x 60 mm respectively) | 01.460.300 | none | 01.460.400 | none |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.460.301 | none | 01.460.401 | none |

| Option | 301 mm Suffix | Surcharge € each | 401 mm Suffix | Surcharge € each |
|---|---|---|---|---|
| Front glass treated for low reflectivity | -49 | 39.– | -49 | 39.– |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Analog Clocks for In-Wall Mounting

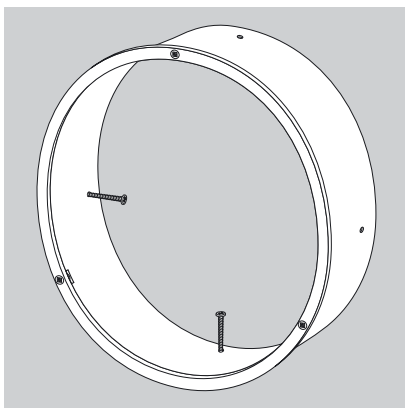
## ideal for surgical operating rooms and other clean rooms

**Indoor**
analog
flush-mounted

Type series
**460**

73.**460**.320 shown
for mounting in conventional brick-and-plaster walls

These round analog clocks with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.



Metal mounting frame 01.**460**.300
for in-wall mounting in conventional brick walls
(flush with tiles or plaster)

Clock 73.**460**.320 for in-wall mounting
with spring-clip attachment device 01.**460**.301
for stud-and-panel wall mounting

### Case
- cir. 301 mm diameter
- cir. 401 mm diameter

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock.

### Front glass
Flat mineral glass, 3 mm. Optionally treated for low reflectivity.

### Face
High distinction white metal with black DIN bar markings. Face printed according to DIN 41 091.

### Hands
Pointed black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

## Indoor
analog
flush-mounted

Type series **460**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

| **Mounting dimensions** | | **301 mm diameter** | **401 mm diameter** |
|---|---|---|---|
| **With mounting frame** (conventional brick walls) | mounting frame diameter | cir. 301 mm | cir. 401 mm |
| | wall breakout diameter | cir. 301 mm | cir. 401 mm |
| | minimum depth | cir. 63 mm | cir. 63 mm |
| **With spring clips** (stud-and-panel walls) | clock case diameter | cir. 301 mm | cir. 401 mm |
| | wall breakout diameter | cir. 282 mm | cir. 382 mm |
| | minimum depth | cir. 60 mm | cir. 60 mm |

| **Technical data** | | **301 mm diameter** | **401 mm diameter** |
|---|---|---|---|
| **Face** | visible face diameter | cir. 250 mm | cir. 350 mm |
| | print diameter | cir. 240 mm | cir. 340 mm |

| **Clock type** | **301 mm diameter Item No.** | **€ each** | **401 mm diameter Item No.** | **€ each** |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.**460**.320 | **880.–** | 52.**460**.420 | **995.–** |
| Slave clock, minute pulse 12...60 V | 71.**460**.320 | **688.–** | 71.**460**.420 | **785.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**460**.320 | **873.–** | 72.**460**.420 | **990.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**460**.320 | **1.018.–** | 73.**460**.420 | **1,135.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**460**.320 | **1.058.–** | 74.**460**.420 | **1,175.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**460**.320 | **1.033.–** | 75.**460**.420 | **1,150.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**460**.320 | **668.–** | 81.**460**.420 | **785.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.**460**.320 | **826.–** | 85.**460**.420 | **943.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.**460**.320 | **833.–** | 91.**460**.420 | **950.–** |

| **Mounting kits** (please order one frame or kit per clock) | **301 mm diameter Item No.** | **€ each** | **401 mm diameter Item No.** | **€ each** |
|---|---|---|---|---|
| Metal mounting frame for in-wall mounting in conventional brick walls (diameter x depth: 301 x 60 mm, 401 x 60 mm respectively) | 01.**460**.300 | **none** | 01.**460**.400 | **none** |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.**460**.301 | **none** | 01.**460**.401 | **none** |

| **Option** | **301 mm Suffix** | **Surcharge € each** | **401 mm Suffix** | **Surcharge € each** |
|---|---|---|---|---|
| Front glass treated for low reflectivity | **-49** | **39.–** | **-49** | **39.–** |

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Analog Clocks for In-Wall Mounting

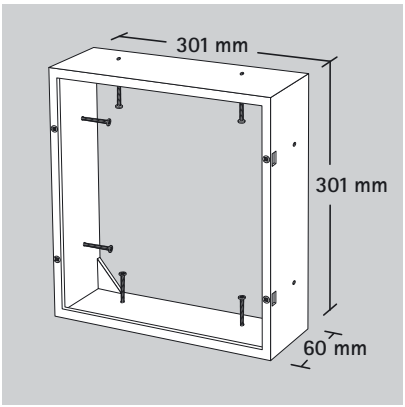
## ideal for surgical operating rooms and other clean rooms

**Indoor**
analog
flush-mounted

Type series
**470**

73.**470**.310 shown
for mounting in conventional brick-and-plaster walls

These square analog clocks with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.




Metal mounting frame 01.**470**.300
for in-wall mounting in conventional brick walls
(flush with tiles or plaster)

Clock 73.**470**.310 for in-wall mounting
with spring-clip attachment device 01.**470**.301
for stud-and-panel wall mounting

### Case
- cir. 301 x 301 mm

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting.

### Front glass
Flat mineral glass, 3 mm. Optionally treated for low reflectivity.

### Face
High distinction white metal with black Arabic numerals. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

## Indoor
analog
flush-mounted

Type series
**470**

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| Clock case (width x height) | cir. 301 x 301 mm | cir. 301 x 301 mm |
| Wall breakout (width x height) | cir. 301 x 301 mm | cir. 282 x 277 mm |
| Depth | cir. 63 mm | cir. 60 mm |

| Technical data | | |
|---|---|---|
| **Face** | print diameter | cir. 235 mm |
| | face dimensions | cir. 270 x 270 mm |
| **Power consumption** | slave clock, minute pulse 24 V | cir. 6 mA |
| | slave clock, minute/second pulse 24 V | cir. 12 mA |

| **Clock type** | **Item No.** | **€ each** |
|---|---|---|
| DCF77 radio controlled clock, mains operated 230 V AC [1] | 52.**470**.310 | **880.–** |
| Slave clock, minute pulse 12...60 V | 71.**470**.310 | **668.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**470**.310 | **873.–** |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.**470**.310 | **1,018.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.**470**.310 | **1,058.–** |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.**470**.310 | **1,033.–** |
| Slave clock, *DCFport24* pulse telegram | 81.**470**.310 | **668.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | 85.**470**.310 | **826.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.**470**.310 | **833.–** |

| **Mounting kits** (please order one frame or kit per clock) | **Item No.** | **€ each** |
|---|---|---|
| Metal mounting frame for in-wall mounting in conventional brick walls | 01.**470**.300 | **none** |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.**470**.301 | **none** |
| Case for on-wall mounting (stainless steel V4A) | 01.**470**.302 | **225.–** |

| **Option** | **Suffix** | **Surcharge € each** |
|---|---|---|
| Front glass treated for low reflectivity | **-49** | **39.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Analog Clocks for In-Wall Mounting

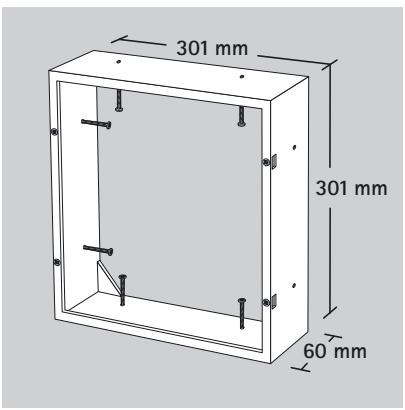
## ideal for surgical operating rooms and other clean rooms

**Indoor**
analog
flush-mounted

Type series
**470**

73.**470**.320 shown
for mounting in conventional brick-and-plaster walls

These square analog clocks with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.




Metal mounting frame 01.**470**.300
for in-wall mounting in conventional brick walls
(flush with tiles or plaster)

Clock 73.**470**.330 (with fine-line markings) for in-wall mounting with spring-clip attachment device 01.**470**.301 for stud-and-panel wall mounting

### Case
- cir. 301 x 301 mm

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting.

### Front glass
Flat mineral glass, 3 mm. Optionally treated for low reflectivity.

### Face
High distinction white metal with black DIN bar or black fine-line markings. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

## Indoor
analog
flush-mounted

Type series
**470**

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| Clock case (width x height) | cir. 301 x 301 mm | cir. 301 x 301 mm |
| Wall breakout (width x height) | cir. 301 x 301 mm | cir. 282 x 277 mm |
| Depth | cir. 63 mm | cir. 60 mm |

| Technical data | | |
|---|---|---|
| Face | print diameter | cir. 235 mm |
| | face dimensions | cir. 270 x 270 mm |
| Power consumption | slave clock, minute pulse 24 V | cir. 6 mA |
| | slave clock, minute/second pulse 24 V | cir. 12 mA |

| Clock type | DIN bars Item No. | € each | fine-line Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 V AC [1] | 52.470.320 | 880.– | 52.470.330 | 880.– |
| Slave clock, minute pulse 12...60 V | 71.470.320 | 668.– | 71.470.330 | 668.– |
| Slave clock, minute/second pulse 12/24 V | 72.470.320 | 873.– | 72.470.330 | 873.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.470.320 | 1.018.– | 73.470.330 | 1,018.– |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 V AC/50 Hz | 74.470.320 | 1.058.– | 74.470.330 | 1,058.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.470.320 | 1.033.– | 75.470.330 | 1,033.– |
| Slave clock, *DCFport24* pulse telegram | 81.470.320 | 668.– | 81.470.330 | 668.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 V AC | 85.470.320 | 826.– | 85.470.330 | 826.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.470.320 | 833.– | 91.470.330 | 833.– |

| **Mounting kits** (please order one frame or kit per clock) | Item No. | € each |
|---|---|---|
| Metal mounting frame for in-wall mounting in conventional brick walls | 01.470.300 | none |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.470.301 | none |
| Case for on-wall mounting (stainless steel V4A) | 01.470.302 | 225.– |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Front glass treated for low reflectivity | -49 | 39.– |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Stopwatch for In-Wall Mounting

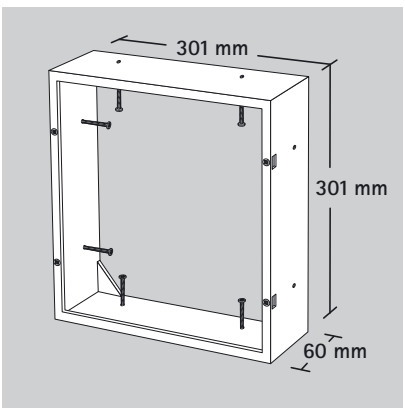
## ideal for surgical operating rooms and other clean rooms

**Indoor**
analog
flush-mounted

Type series
**475**

42.**475**.310 shown
for mounting in conventional brick-and-plaster walls

These built-in stopwatches with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate devices meet all hygienic standards.




Metal mounting frame 01.**470**.300
for in-wall mounting in conventional brick walls
(flush with tiles or plaster)

Built-in stopwatch 42.**475**.310 for in-wall mounting with spring-clip attachment device 01.**470**.301 for stud-and-panel wall mounting

### Case
- cir. 301 x 301 mm

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting.

### Front glass
Flat mineral glass, 3 mm. Optionally treated for low reflectivity.

### Function
Display of time elapsed in minutes and seconds. Operation by a separate, wire-bound remote control (accessory), with 3 keys for „start/stop", „split time" and „reset".
Parallel operation of 2 stopwatches with 1 remote control unit possible.

### Face
High distinction white metal with red/black minute and second bars and black numerals for easy, doubt-free reading.

### Hands
Black minute hand. Red second hand with "eye", intervals in second cycles.

**Indoor**
analog
flush-mounted

Type series
**475**

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted stopwatches of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| clock case (width x height) | cir. 301 x 301 mm | cir. 301 x 301 mm |
| wall breakout (width x height) | cir. 301 x 301 mm | cir. 282 x 277 mm |
| depth | cir. 63 mm | cir. 60 mm |

| Type | Item No. | € each |
|---|---|---|
| Quartz movement, mains operated 230 V AC, extra low noise motion | 42.**475**.310 | **995.–** |

| **Mounting kits** (please order one frame or kit per clock) | Item No. | € each |
|---|---|---|
| Metal mounting frame for in-wall mounting in conventional brick walls | 01.**470**.300 | **none** |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.**470**.301 | **none** |
| Case for on-wall mounting (stainless steel V4A) | 01.**470**.302 | **225.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Remote control with mounting frame for in-wall mounting, stainless steel V4A | 02.**475**.100 | **450.–** |
| Remote control for stud-and-panel wall mounting by means of spring clip attachment device, stainless steel V4A (no mounting frame required) | 02.**475**.101 | **450.–** |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Front glass treated for low reflectivity | **-49** | **39.–** |

Built-in remote control with stainless steel case V4A (accessory)

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# Analog Clocks for In-Wall Mounting

## with digital stopwatch display, ideal for surgical operating rooms

**Indoor**
analog/digital
flush-mounted

Type series
**480**

73.**480**.310 shown

These analog clocks with LED digital stopwatch display with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.

02.**498**.101

02.**498**.102

For operating the stopwatch mode of the LED digital display we provide different remote control units in stainless steel cases. For a detailed product description please see page 126.

### Case
- cir. 301 x 387 mm

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting.

### Front glass
Flat mineral glass, 3 mm. Glass on digital display is treated for low reflectivity. On analog face, low reflective glass is available as an option.

### Face
High distinction white metal with black Arabic numerals. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

### LED digital display
6-digit 7-segment LED bars, digit colour red (option: amber or green). Digit height 25 mm. Automatic brightness control. Power supply is 230 VAC mains as standard, 12 V DC (option). Power loss reserve: Time telegram/pulse storage to cover cir. 100 hours.

### Stopwatch mode
The 6-digit display will show hours, minutes and seconds, counting up from start. The stopwatch system is controlled by a remote control unit (as an extra), for technical data see page 126.

### Stainless steel V4A
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| clock case (width x height) | cir. 301 x 387 mm | cir. 301 x 387 mm |
| wall breakout (width x height) | cir. 301 x 387 mm | cir. 282 x 362 mm |
| depth | cir. 81 mm | cir. 78 mm |

| Technical data | | |
|---|---|---|
| **Analog face** | print diameter | cir. 235 mm |
| | face dimensions | cir. 270 x 270 mm |
| **Digit height** | digital display | 25 mm |
| **Electrical values** | operating voltage for digital display | 230 VAC |
| | optional operating voltage for digital display | 12 VDC |
| | power consumption LED display | cir. 9 VA |

| Clock type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.480.310 | 1,445.– |
| Slave clock, minute pulse 12...60 V | 71.480.310 | 1,245.– |
| Slave clock, minute/second pulse 12/24 V | 72.480.310 | 1,450.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.480.310 | 1,595.– |
| Slave clock, minute pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.480.310 | 1,635.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.480.310 | 1,610.– |
| Slave clock, *DCFport24* pulse telegram | 81.480.310 | 1,275.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.480.310 | 1,433.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.480.310 | 1,440.– |

| **Mounting kits** (please order one frame or kit per clock) | Item No. | € each |
|---|---|---|
| Metal mounting frame (width x height x depth: cir. 301 x 387 x 78 mm) for in-wall mounting in conventional brick walls | 01.480.300 | none |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.480.301 | none |
| Case for on-wall mounting (stainless steel V4A) | 01.480.302 | 249.– |

| Accessories | Item No. | € each |
|---|---|---|
| Remote control with mounting frame for in-wall mounting, stainless steel V4A | 02.498.100 | 695.– |
| Remote control for stud-and-panel wall mounting by means of spring clip attachment device, stainless steel V4A (no mounting frame required) | 02.498.101 | 695.– |
| Hand-held remote control, stainless steel V4A | 02.498.102 | 695.– |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Front glass of analog clock treated for low reflectivity | -49 | 39.– |
| Mains adapter 12 V DC for LED digital display | -70 | none |
| Amber (instead of red) digital display | -78 | on request |
| Green (instead of red) digital display | -79 | on request |
| Date display during inactivity of stopwatch mode | -81 | on request |

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Indoor
analog/digital
flush-mounted

Type series
**480**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Analog Clocks for In-Wall Mounting

## with digital stopwatch display, ideal for surgical operating rooms

**Indoor**
analog/digital
flush-mounted

Type series
**480**

73.**480**.320 shown

These analog clocks with LED digital stopwatch display with stainless steel V4A cases were designed with the surgical operating room in mind. Mounted in-wall, flush with the surface, these reliable and accurate clocks meet all hygienic standards. Also suitable for all other demanding environments such as the pharmaceutical, beverage and food industries.

02.**498**.101

02.**498**.102

For operating the stopwatch mode of the LED digital display we provide different remote control units in stainless steel cases. For a detailed product description please see page 126.

### Case
- cir. 301 x 387 mm

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting.

### Front glass
Flat mineral glass, 3 mm. Glass on digital display is treated for low reflectivity. On analog face, low reflective glass is available as an option.

### Face
High distinction white metal with black DIN bar markings. Face printed according to DIN 41 091.

### Hands
Black bar-type hour and minute hands, red second hand.

No second hands on minute pulse 12…60 V controlled slave clocks.

### LED digital display
6-digit 7-segment LED bars, digit colour red (option: amber or green). Digit height 25 mm. Automatic brightness control. Power supply is 230 VAC mains as standard, 12 V DC (option). Power loss reserve: Time telegram/pulse storage to cover cir. 100 hours.

### Stopwatch mode
The 6-digit display will show hours, minutes and seconds, counting up from start. The stopwatch system is controlled by a remote control unit (as an extra), for technical data see page 126.

### Stainless steel V4A
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| clock case (width x height) | cir. 301 x 387 mm | cir. 301 x 387 mm |
| wall breakout (width x height) | cir. 301 x 387 mm | cir. 282 x 362 mm |
| depth | cir. 81 mm | cir. 78 mm |

| Technical data | | |
|---|---|---|
| **Analog face** | print diameter | cir. 235 mm |
| | face dimensions | cir. 270 x 270 mm |
| **Digit height** | digital display | 25 mm |
| **Electrical values** | operating voltage for digital display | 230 VAC |
| | optional operating voltage for digital display | 12 VDC |
| | power consumption LED display | cir. 9 VA |

| Clock type | DIN bars Item No. | € each | fine-line Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains op. 230 VAC [1] | 52.480.320 | 1,445.– | 52.480.330 | 1,445.– |
| Slave clock, minute pulse 12...60 V | 71.480.320 | 1,245.– | 71.480.330 | 1,245.– |
| Slave clock, minute/second pulse 12/24 V | 72.480.320 | 1,450.– | 72.480.330 | 1,450.– |
| Slave clock, minute/second pulse 12/24 V, extra low noise motion | 73.480.320 | 1,595.– | 73.480.330 | 1,595.– |
| Slave clock, min. pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.480.320 | 1,635.– | 74.480.330 | 1,635.– |
| Slave clock, second pulse 12/24 V, with creeping minute hand | 75.480.320 | 1,610.– | 75.480.330 | 1,610.– |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 81.480.320 | 1,275.– | 81.480.330 | 1,275.– |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.480.320 | 1,433.– | 85.480.330 | 1,433.– |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | 91.480.320 | 1,440.– | 91.480.330 | 1,440.– |

| Mounting kits (please order one frame or kit per clock) | Item No. | € each |
|---|---|---|
| Metal mounting frame (width x height x depth: cir. 301 x 387 x 78 mm) for in-wall mounting in conventional brick walls | 01.480.300 | none |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.480.301 | none |
| Case for on-wall mounting (stainless steel V4A) | 01.480.302 | 249.– |

| Accessories | Item No. | € each |
|---|---|---|
| Remote control w. mounting frame for in-wall mounting, stainless steel V4A | 02.498.100 | 695.– |
| Remote control for stud-and-panel wall mounting by means of spring clip attachment device, stainless steel V4A (no mounting frame required) | 02.498.101 | 695.– |
| Hand-held remote control, stainless steel V4A | 02.498.102 | 695.– |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Front glass of analog clock treated for low reflectivity | -49 | 39.– |
| Mains adapter 12 V DC for LED digital display | -70 | none |
| Amber (instead of red) digital display | -78 | on request |
| Green (instead of red) digital display | -79 | on request |
| Date display during inactivity of stopwatch mode | -81 | on request |

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

## Indoor
analog/digital
flush-mounted

Type series
**480**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Clocks for In-Wall Mounting

## with stopwatch mode (optional), ideal for surgical operating rooms

**Indoor**
digital
flush-mounted

Type series
**490**

83.**490**.550 shown

These LED digital clocks with stainless steel V4A cases were designed with the surgical operating room in mind. They are mounted in-wall, flush with the surface, to meet all hygienic standards.
Configured in this type of case or in any other case adapted to customer's wishes, e. g.

- for on-wall mounting,
- for desk-top use or
- as a double faced clock,

these clocks can be used in any demanding environment, such as the pharmaceutical, beverage and food industries, requiring accurate and dependable time information.

2 x 83.**490**.550 **–89** and 01.**490**.503 shown

Double faced clock with ceiling bracket, stainless steel V4A

02.**498**.101

02.**498**.102

For operating the stopwatch mode (option) we provide different remote control units in stainless steel cases. For a detailed product description please see page 126.

### Case
- cir. 455 x 150 mm,

very high grade stainless steel case (1.4571 X6CrNiMoTi 17-12-2, German trade name V4A), for mounting flush with wall tiles or plaster. Visible surface with a matted finish, resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting
- built-in/plaster
- in stud-and-panel wall
- on-wall mounting (optional)
- double faced clocks may be suspended from the ceiling on brackets (optional).

A metal mounting frame for conventional brick walls or a spring-clip device for stud-and-panel walls is supplied with the clock. Optionally, at a surcharge, the clock may also be configured for on-wall mounting or as a double faced version.

### LED digital display
6-digits, 2 each for hours, minutes and seconds. 7-segment LED bars, red as standard, amber or green as options. Digit height 57 mm for hour, minute and second. Second digit height 38 mm as an option. Automatic brightness control. Readability is excellent even at extremely sharp angles.

### Front glass
Flat mineral glass, 3 mm, treated for low reflectivity.

### Power supply
230 V AC/50 Hz is standard, 12 V DC mains is optional. Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2]. Existing 2-wire or 4-wire slave clock bus lines may be re-used for 12 V DC or PEWETA *DCFport24* versions.

### Stopwatch mode (optional)
These clocks can be fitted with a count up/split time stopwatch mode. The 6-digit LED display will show hours, minutes and seconds, counting up from start. The stopwatch system is controlled by a wire-based remote control unit (as an extra), for technical data see page 126.

### Stainless steel V4A
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The flush-mounted clocks of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.

## Indoor
digital
flush-mounted

Type series
**490**

| Mounting dimensions | with mounting frame | for stud-and-panel walls |
|---|---|---|
| clock case (width x height) | cir. 455 x 150 mm | cir. 455 x 150 mm |
| wall breakout (width x height) | cir. 455 x 150 mm | cir. 426 x 138 mm |
| depth | cir. 73 mm | cir. 60 mm |

| Technical data | | |
|---|---|---|
| **Digit height** | hour, minute, second | 57 mm |
| | second (option) | 38 mm |
| **Electrical values** | operating voltage | 230 V AC |
| | operating voltage (option) | 12 V DC |
| | power consumption | cir. 9 VA |
| | power losss reserve | cir. 100 hours. |

| Clock type | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock (in connection with *PEWETA data bus RS485 master* or *slave* option only) | 230 V AC | 42.490.550 | 1,120.– |
| DCF77 radio controlled clock[1] | 230 V AC | 52.490.550 | 1,245.– |
| Slave clock, minute pulse 24 V | 230 V AC | 71.490.550 | 1,199.– |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.490.550 | 1,199.– |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 V AC | 83.490.550 | 1,199.– |
| Slave clock, *AirPort24* radio controlled telegram | 230 V AC | 85.490.550 | 1,249.– |
| Slave clock, NTP synchronisation by LAN (NTP-client), PoE[3] | PoE | 91.490.550 | 1,240.– |
| Slave clock, NTP synchronisation by LAN (NTP-client)[4] | 230 V AC | 93.490.550 | 1,260.– |

| **Mounting kits** (please order one frame or kit per clock) | Item No. | € each |
|---|---|---|
| Metal mounting frame (width x height x depth: cir. 455 x 150 x 70 mm) for in-wall mounting in conventional brick walls | 01.490.500 | none |
| Mounting kit for stud-and-panel walls (spring-clip attachment device/no mounting frame required) | 01.490.501 | none |
| Case for on-wall mounting (stainless steel V4A) | 01.490.502 | 225.– |
| Bracket for ceiling mounting of two single clocks (stainless steel V4A) | 01.490.503 | 225.– |

| Accessories | Item No. | € each |
|---|---|---|
| Remote control w. mounting frame for in-wall mounting, stainless steel V4A | 02.498.100 | 695.– |
| Remote control for stud-and-panel wall mounting by means of spring clip attachment device, stainless steel V4A (no mounting frame required) | 02.498.101 | 695.– |
| Hand-held remote control, stainless steel V4A | 02.498.102 | 695.– |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Operating voltage 12 V DC (instead of 230 V AC) | -70 | none |
| Stopwatch mode (remote control unit is an extra) | -71 | 169.– |
| Amber (instead of red) LED digital display (57 mm digit height second only) | -78 | 59.– |
| Green (instead of red) LED digital display (57 mm digit height second only) | -79 | 115.– |
| Date indication alternating with time indication | -81 | on request |
| *PEWETA data bus RS485 master* (output) | -82 | 98.– |
| *PEWETA data bus RS485 slave* (input) | -83 | 98.– |
| Alternating temperature indication (external temperature sensor included) | -88 | 295.– |
| Second digit height 38 mm (instead of 57 mm) | -89 | none |
| GPS version, incl. GPS receiving aerial (IP 65/EN 60 529) | -95 | 695.– |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial (IP 68) is included in delivery shipment.
[2] Limited number of clocks within a system/network.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

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# Remote Control

ideally suited for surgical operating room in-wall clocks (digital or analog/digital)

**Remote control**
flush-mounted or hand-held

Type series
**498**

These control units (wire-bound remote controls) were specially developed for use in hospital surgical operating rooms – flush with wall tiles, no hygienic limitations, reliable and accurate!
Also usable in other clean-room environments, such as pharmaceutic, beverage or food industries.

### Case

Flush-with-tiles/wall surface stainless steel V4A (1.4571 X6CrNiMoTi 17-12-2) mounting frame for in-wall mounting, visible surfaces with a matted finish (K240), specially resistant to acids, detergents and disinfectants. In mounted condition protected against dust and moisture to IP 54 (EN 60 529).

### Mounting

- built-in/plaster
- in stud-and-panel wall
- hand-held

The built-in version is supplied with either a mounting frame for mounting in conventional brick-and-plaster walls or a spring clip attachment device for stud-and-panel walls.
A hand-held version is also available.
For dimensions please see table.

### Functions

- switching between clock and stopwatch function
- start/stop (counting upwards)
- split times
- reset

When used with PEWETA LED-OP-in-wall clocks, no separate power supply is required. Connected to clock by 4-core-wire, such as LIYCY-0 4 x 0.25 mm² (standard length of cir. 5 m is supplied with control unit).

02.**498**.101 shown

| **Mounting dimensions** | 02.**498**.100 | 02.**498**.101 |
|---|---|---|
| wall breakout (width x height) | cir. 150 x 150 mm | cir. 135 x 125 mm |
| space required for spring clips (width) | not applicable | cir. 250 mm |
| front panel (width x height) | cir. 150 x 150 mm | cir. 150 x 150 mm |
| minimum depth without mounting frame | 37.5 mm | 34.5 mm |

| **Dimensions** | 02.**498**.102 |
|---|---|
| width x height x depth | cir. 43 x 125 x 25 mm |
| weight | cir. 250 g |

If interested please ask for data and dimension sheet.

| **Type** | **Item No.** | **€ each** |
|---|---|---|
| Remote control with mounting frame for in-wall mounting, stainless steel V4A | 02.**498**.100 | **695.–** |
| Remote control for stud-and-panel wall mounting by means of spring clip attachment device, stainless steel V4A (no mounting frame required) | 02.**498**.101 | **695.–** |
| Hand-held remote control, stainless steel V4A | 02.**498**.102 | **695.–** |

02.**498**.102

02.**498**.100

**Stainless steel V4A**
Due to its components stainless steel V4A is not only completely impervious to detergents and disinfectants but also to acids and other aggressive media.
The control units of this type series are therefore particularly suited for the use surgical operating rooms and other clean rooms.



*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added.*
*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

**Indoor**
digital
single- and
double-sided

# Digital Clocks

## indoor · single- and double-sided

*"Thirteen fortyfive" – contrary to analog clocks, digital clocks soundlessly indicate the time in a 24-hour mode.*
*This is particularly recommended for radio stations and TV studios, in world time clock systems and for places of high publicity, e. g. bank areas – locations where exact time should be shown in combination with the date.*

# LED Digital Clocks

## for offices, production areas, and places of high publicity

**Indoor**
digital
single- and
double-sided

Type series
**510**

81.**510**.551 shown

LED digital clocks, single- or double-sided with distinct, brightly lit LED bars guarantee optimal reading clearness.

81.**510**.551 **-78** shown

71.**510**.553 **-79** shown

### Case

- cir. 320 x 150 x 34 mm (cipher height 57 mm)
- cir. 520 x 250 x 43 mm (cipher height 100 mm)

Extra flat, very sturdy metal case, enamelled black (RAL 9005). Protection grade IP 40 (EN 60 529).

### Mounting

- Single-sided version for on-wall mounting, optionally with an additional, sturdy wall or ceiling mounting bracket (accessory)
- Double-sided version includes sturdy wall or ceiling mounting bracket.

### LED digital display

- cipher height 57 mm
- cipher height 100 mm

Single line display showing hours and minutes, 4 digits, bar-type 7-segment LED ciphers, colour red (optionally amber, green or blue at a surcharge). Automatic brightness control. Menu selection for hour offset and suppression of leading zero. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC/AC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2)].

### Front glass

Flat acrylic glass.

**Double-sided LED digital clocks**
Double-sided clocks come completely wired and pre-assembled.
All settings will be taken over by both sides automatically!

| Technical data | | Cipher height 57 mm | Cipher height 100 mm |
|---|---|---|---|
| **Case** | colour | black (RAL 9005) | black (RAL 9005) |
| | dimensions (length x width x depth) | cir. 320 x 150 x 34 mm | cir. 520 x 250 x 43 mm |
| **Display** | cipher height hours, minutes | cir. 57 mm | cir. 100 mm |
| | LED colour | red | red |
| | reading distance | cir. 20 m | cir. 40 m |
| **Power consumption** | display | max. 5 VA | max. 6 VA |

| **Single-sided version** (on-wall mounting) | Cipher height ▶ Operating voltage ▼ | 57 mm Item No. | € each | 100 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock | 230 VAC | 42.**510**.551 | **570.–** | 42.**510**.951 | **960.–** |
| DCF77 radio controlled clock [1] | 230 VAC | 52.**510**.551 | **695.–** | 52.**510**.951 | **1,085.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**510**.551 | **649.–** | 71.**510**.951 | **1,039.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | *DCFport24* | 81.**510**.551 | **649.–** | 81.**510**.951 | **1,039.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**510**.551 | **649.–** | 83.**510**.951 | **1,039.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**510**.551 | **699.–** | 85.**510**.951 | **1,089.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | PoE | 91.**510**.551 | **690.–** | 91.**510**.951 | **1,080.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] | 230 VAC | 93.**510**.551 | **710.–** | 93.**510**.951 | **1,100.–** |

| **Double-sided version** (incl. wall and ceiling mounting bracket respectively) | Cipher height ▶ Mounting ▼ | 57 mm Item No. | € each | 100 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock, mains operated 230 VAC | wall | 42.**510**.552 | **1,270.–** | | **not available** |
| | ceiling | 42.**510**.553 | **1,270.–** | 42.**510**.953 | **2,050.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [1] | wall | 52.**510**.552 | **1,395.–** | | **not available** |
| | ceiling | 52.**510**.553 | **1,395.–** | 52.**510**.953 | **2,175.–** |
| Slave clock, minute pulse 24 V, mains operated 230 VAC | wall | 71.**510**.552 | **1,349.–** | | **not available** |
| | ceiling | 71.**510**.553 | **1,349.–** | 71.**510**.953 | **2,129.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2], operating voltage *DCFport24* | wall | 81.**510**.552 | **1,349.–** | | **not available** |
| | ceiling | 81.**510**.553 | **1,349.–** | 81.**510**.953 | **2,129.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V, mains operated 230 VAC | wall | 83.**510**.552 | **1,349.–** | | **not available** |
| | ceiling | 83.**510**.553 | **1,349.–** | 83.**510**.953 | **2,129.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**510**.552 | **1,399.–** | | **not available** |
| | ceiling | 85.**510**.553 | **1,399.–** | 85.**510**.953 | **2,179.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] operating voltage PoE | wall | 91.**510**.552 | **1,390.–** | | **not available** |
| | ceiling | 91.**510**.553 | **1,390.–** | 91.**510**.953 | **2,170.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] mains operated 230 VAC | wall | 93.**510**.552 | **1,410.–** | | **not available** |
| | ceiling | 93.**510**.553 | **1,410.–** | 93.**510**.953 | **2,190.–** |

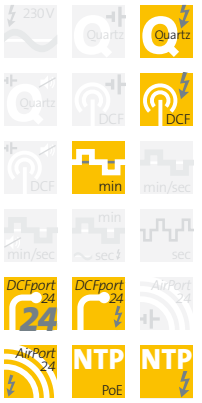
| **Accessories** | Item No. | € each |
|---|---|---|
| Mounting bracket for 1 single-sided clock, on wall, bracket length cir. 125 mm (for LED clocks with 57 mm cipher height only) | 01.**510**.502 | **149.–** |
| Mounting bracket for 1 single-sided clock, on ceiling, bracket length cir. 130 mm | 01.**510**.503 | **149.–** |
| Metal cover for wall or ceiling mounting bracket | 01.**510**.537 | **98.–** |

| **Options** | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Amber LEDs (57 mm cipher height only, surcharge per display/side) | **-78** | **39.–** |
| Green LEDs (57 mm cipher height only, surcharge per display/side) | **-79** | **79.–** |
| Blue LEDs (57 mm cipher height only, surcharge per display/side) | **-80** | **79.–** |
| Alternating date display | **-81** | **on request** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

## Indoor
digital
single- and
double-sided

Type series
**510**




**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2020. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Clocks

## for offices, production areas, and places of high publicity

**Indoor**
digital
single- and
double-sided

Type series
**511**

81.**511**.551 shown

LED digital clocks, single- or double-sided with distinct, brightly lit LED bars guarantee optimal reading clearness.

43.**548**.151 shown

71.**511**.553 **-89** shown

### Case

- cir. 440 x 150 x 34 mm (cipher height 57 mm)
- cir. 770 x 250 x 43 mm (cipher height 100 mm)

Extra flat, very sturdy metal case, enamelled black (RAL 9005).
Protection grade IP 40 (EN 60 529).

### Mounting

- Single-sided version for on-wall mounting, optionally with an additional, sturdy wall or ceiling mounting bracket (accessory)
- Double-sided version includes sturdy wall or ceiling mounting bracket.

### LED digital display

- cipher height 57 mm (option: 38 mm for seconds)
- cipher height 100 mm

Single line display showing hours, minutes and seconds, 6-digits, bar-type 7-segment LED ciphers, colour red (optionally amber, green or blue at a surcharge). Automatic brightness control. Menu selection for hour offset and suppression of leading zero. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC/AC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2)].

### Stopwatch mode (option)

This clock can be fitted with an additional stopwatch mode (count-up/count-down/split times). This mode is controlled by a wire-bound »Basic plus« control unit (accessory). For technical details see page Seite 145.

### Front glass

Flat acrylic glass.

**Double-sided LED digital clocks**
Double-sided clocks come completely wired and pre-assembled.
All settings will be taken over by both sides automatically!

| Technical data | | Cipher height 57 mm | Cipher height 100 mm |
|---|---|---|---|
| **Case** | colour | black (RAL 9005) | black (RAL 9005) |
| | dimensions (length x width x depth) | cir. 440 x 150 x 34 mm | cir. 770 x 250 x 43 mm |
| **Display** | cipher height hours, minutes, seconds | cir. 57 mm | cir. 100 mm |
| | LED colour | red | red |
| | reading distance | cir. 20 m | cir. 40 m |
| **Power consumption** | display | max. 5 VA | max. 6 VA |

| **Single-sided version** (on-wall mounting) | Cipher height ▶ Operating voltage ▼ | 57 mm Item No. | € each | 100 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock | 230 VAC | 42.**511**.551 | **640.–** | 42.**511**.951 | **1,170.–** |
| DCF77 radio controlled clock [1] | 230 VAC | 52.**511**.551 | **765.–** | 52.**511**.951 | **1,295.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**511**.551 | **719.–** | 71.**511**.951 | **1,249.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | *DCFport24* | 81.**511**.551 | **719.–** | 81.**511**.951 | **1,249.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**511**.551 | **719.–** | 83.**511**.951 | **1,249.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**511**.551 | **769.–** | 85.**511**.951 | **1,299.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | PoE | 91.**511**.551 | **760.–** | 91.**511**.951 | **1,290.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] | 230 VAC | 93.**511**.551 | **780.–** | 93.**511**.951 | **1,310.–** |

| **Double-sided version** (incl. wall and ceiling mounting bracket respectively) [5] | Cipher height ▶ Mounting ▼ | 57 mm Item No. | € each | 100 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock, mains operated 230 VAC | wall | 42.**511**.552 | **1,410.–** | | **not available** |
| | ceiling | 42.**511**.553 | **1,410.–** | 42.**511**.953 | **2,460.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [1] | wall | 52.**511**.552 | **1,535.–** | | **not available** |
| | ceiling | 52.**511**.553 | **1,535.–** | 52.**511**.953 | **2,585.–** |
| Slave clock, minute pulse 24 V, mains operated 230 VAC | wall | 71.**511**.552 | **1,489.–** | | **not available** |
| | ceiling | 71.**511**.553 | **1,489.–** | 71.**511**.953 | **2,539.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2], operating voltage *DCFport24* | wall | 81.**511**.552 | **1,489.–** | | **not available** |
| | ceiling | 81.**511**.553 | **1,489.–** | 81.**511**.953 | **2,539.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V, mains operated 230 VAC | wall | 83.**511**.552 | **1,489.–** | | **not available** |
| | ceiling | 83.**511**.553 | **1,489.–** | 83.**511**.953 | **2,539.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**511**.552 | **1,539.–** | | **not available** |
| | ceiling | 85.**511**.553 | **1,539.–** | 85.**511**.953 | **2,589.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] operating voltage PoE | wall | 91.**511**.552 | **1,530.–** | | **not available** |
| | ceiling | 91.**511**.553 | **1,530.–** | 91.**511**.953 | **2,580.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] mains operated 230 VAC | wall | 93.**511**.552 | **1,550.–** | | **not available** |
| | ceiling | 93.**511**.553 | **1,550.–** | 93.**511**.953 | **2,600.–** |

| **Accessories** | Cipher height ▶ | 57 mm Item No. | € each | 100 mm Item No. | € each |
|---|---|---|---|---|---|
| Mounting bracket for 1 single-sided clock, on wall, bracket length cir. 125 mm | | 01.**511**.502 | **149.–** | | **not available** |
| Mounting bracket(s) [5] for 1 single-sided clock, on ceiling, bracket length cir. 130 mm | | 01.**511**.503 | **149.–** | 01.**511**.903 | **298.–** |
| Metal cover(s) for wall or ceiling mounting bracket(s) | | 01.**510**.537 | **98.–** | 01.**515**.537 | **196.–** |
| Remote control unit "BASIC plus" for stopwatch function | | 43.**548**.151 | **695.–** | 43.**548**.151 | **695.–** |

| **Options** | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| Amber LEDs (57 mm cipher height only, surcharge per display/side) | **-78** | **59.–** |
| Green LEDs (57 mm cipher height only, surcharge per display/side) | **-79** | **115.–** |
| Blue LEDs (57 mm cipher height only, surcharge per display/side) | **-80** | **115.–** |
| Alternating date display | **-81** | **on request** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Seconds display: 38 mm cipher height instead of 57 mm | **-89** | **none** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.
[5] For LED digital clocks with 100 mm cipher height, 2 mounting brackets per clock will always be supplied.

## Indoor
digital
single- and
double-sided

Type series
**511**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2020. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Calendar Clocks

## for banks, reception areas, and other places of high publicity

**Indoor**
digital
single- and
double-sided

Type series
**515**

81.**515**.551 shown

LED digital clocks, single- or double-sided with distinct, brightly lit LED bars guarantee optimal reading clearness.

71.**515**.553 shown

81.**515**.551 **-74** shown

### Case

- cir. 440 x 300 x 34 mm

Extra flat, very sturdy metal case, enamelled black (RAL 9005). Protection grade IP 40 (EN 60 529).

### Mounting

- Single-sided version for on-wall mounting, optionally with additional, sturdy wall or ceiling mounting brackets (accessory)
- Double-sided version includes sturdy wall or ceiling mounting brackets.

### LED digital display

2-line numeric display, top line showing hours and minutes, cipher height 57 mm (optional seconds: cipher height 57 mm or 38 mm), bottom line showing 8-digit numeric date, cipher height 45 mm, readable from 18...20 m distance. All ciphers are bar-type 7-segment LED, colour red. Automatic brightness control. Menu selection for hour offset and suppression of leading zero. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC /AC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Front glass

Flat acrylic glass.

**Double-sided LED digital clocks**
Double-sided clocks come completely wired and pre-assembled.

| Technical data | | |
|---|---|---|
| **Case** | colour | black (RAL 9005) |
| | dimensions (length x width x depth) | cir. 440 x 300 x 34 mm |
| **Display** | cipher height hours, minutes | cir. 57 mm |
| | cipher height date | cir. 45 mm |
| | cipher height seconds (option) | cir. 38 or 57 mm |
| | LED colour | red |
| | reading distance | cir. 18...20 m |
| **Power consumption** | display | max. 5 VA |

| **Single-sided version** (on-wall mounting) | **Operating voltage** | **Item No.** | **€ each** |
|---|---|---|---|
| Quartz clock | 230 VAC | 42.**515**.551 | **1,060.–** |
| DCF77 radio controlled clock [1] | 230 VAC | 52.**515**.551 | **1,185.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**515**.551 | **1,139.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | *DCFport24* | 81.**515**.551 | **1,139.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**515**.551 | **1,139.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**515**.551 | **1,189.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | PoE | 91.**515**.551 | **1,180.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] | 230 VAC | 93.**515**.551 | **1,200.–** |

| **Double-sided version** (incl. wall or ceiling mounting brackets) | **Mounting** | **Item No.** | **€ each** |
|---|---|---|---|
| Quartz clock,<br>mains operated 230 VAC | wall<br>ceiling | 42.**515**.552<br>42.**515**.553 | **2,370.–**<br>**2,370.–** |
| DCF77 radio controlled clock,<br>mains operated 230 VAC [1] | wall<br>ceiling | 52.**515**.552<br>52.**515**.553 | **2,595.–**<br>**2,595.–** |
| Slave clock, minute pulse 24 V,<br>mains operated 230 VAC | wall<br>ceiling | 71.**515**.552<br>71.**515**.553 | **2,528.–**<br>**2,528.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2],<br>operating voltage *DCFport24* | wall<br>ceiling | 81.**515**.552<br>81.**515**.553 | **2,528.–**<br>**2,528.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V,<br>mains operated 230 VAC | wall<br>ceiling | 83.**515**.552<br>83.**515**.553 | **2,528.–**<br>**2,528.–** |
| Slave clock, *AirPort24* radio controlled telegram,<br>mains operated 230 VAC | wall<br>ceiling | 85.**515**.552<br>85.**515**.553 | **2,628.–**<br>**2,628.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3]<br>operating voltage PoE | wall<br>ceiling | 91.**515**.552<br>91.**515**.553 | **2,610.–**<br>**2,610.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4]<br>mains operated 230 VAC | wall<br>ceiling | 93.**515**.552<br>93.**515**.553 | **2,650.–**<br>**2,650.–** |

| **Accessories** | **Item No.** | **€ each** |
|---|---|---|
| Mounting brackets for 1 single-sided clock, on wall, bracket length cir. 125 mm | 01.**515**.502 | **298.–** |
| Mounting brackets for 1 single-sided clock, on ceiling, bracket length cir. 130 mm | 01.**515**.503 | **298.–** |
| Metal covers for wall or ceiling mounting brackets | 01.**515**.537 | **196.–** |

| **Options** | **Suffix** | **Surcharge € each** |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Additional 2-digit seconds display, height 38 or 57 mm | **-74** | **125.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/ network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

## Indoor
digital
single- and
double-sided

Type series
**515**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Calendar Clocks

## for banks, reception areas, and other places of high publicity

**Indoor**
digital
single- and
double-sided

Type series
**516**

81.**516**.551 shown

LED digital clocks, single- or double-sided with distinct, brightly lit LED bars guarantee optimal reading clearness.

71.**516**.553 shown

81.**516**.551 **-74** shown

### Case

- cir. 440 x 300 x 34 mm

Extra flat, very sturdy metal case, enamelled black (RAL 9005). Protection grade IP 40 (EN 60 529).

### Mounting

- Single-sided version for on-wall mounting, optionally with additional, sturdy wall or ceiling mounting brackets (accessory)
- Double-sided version includes sturdy wall or ceiling mounting brackets.

### LED digital display

3-line display, top line showing hours and minutes, cipher height 57 mm, (optional seconds: cipher height 57 mm or 38 mm), middle line showing day of the week spelled out (up to 10 characters, character height 30 mm), bottom line showing 8-digit numeric date, cipher height 45 mm. Bar-type 7-segment LED ciphers, resp. 16-segment LED characters, colour red. Automatic brightness control. Menu selection for hour offset and suppression of leading zero. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC/AC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Front glass

Flat acrylic glass.

**Double-sided LED digital clocks**
Double-sided clocks come completely wired and pre-assembled.

| Technical data | | |
|---|---|---|
| **Case** | colour | black (RAL 9005) |
| | dimensions (length x width x depth) | cir. 440 x 300 x 34 mm |
| **Display** | cipher height hours, minutes | cir. 57 mm |
| | cipher height date | cir. 45 mm |
| | cipher height day of week | cir. 30 mm |
| | cipher height seconds (option) | cir. 38 or 57 mm |
| | LED colour | red |
| | reading distance | cir. 18...20 m |
| **Power consumption** | display | max. 5 VA |

| **Single-sided version** (on-wall mounting) | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 230 VAC | 42.**516**.551 | **1,280.–** |
| DCF77 radio controlled clock [1] | 230 VAC | 52.**516**.551 | **1,405.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**516**.551 | **1,359.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | *DCFport24* | 81.**516**.551 | **1,359.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**516**.551 | **1,359.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**516**.551 | **1,409.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | PoE | 91.**516**.551 | **1,400.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] | 230 VAC | 93.**516**.551 | **1,420.–** |

| **Double-sided version** (incl. wall or ceiling mounting brackets) | Mounting | Item No. | € each |
|---|---|---|---|
| Quartz clock, mains operated 230 VAC | wall | 42.**516**.552 | **2,820.–** |
| | ceiling | 42.**516**.553 | **2,820.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [1] | wall | 52.**516**.552 | **3,045.–** |
| | ceiling | 52.**516**.553 | **3,045.–** |
| Slave clock, minute pulse 24 V, mains operated 230 VAC | wall | 71.**516**.552 | **2,978.–** |
| | ceiling | 71.**516**.553 | **2,978.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2], operating voltage *DCFport24* | wall | 81.**516**.552 | **2,978.–** |
| | ceiling | 81.**516**.553 | **2,978.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V, mains operated 230 VAC | wall | 83.**516**.552 | **2,978.–** |
| | ceiling | 83.**516**.553 | **2,978.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**516**.552 | **3,078.–** |
| | ceiling | 85.**516**.553 | **3,078.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] operating voltage PoE | wall | 91.**516**.552 | **3,060.–** |
| | ceiling | 91.**516**.553 | **3,060.–** |
| Slave clock, NTP synchronisation by LAN (NTP client) [4] mains operated 230 VAC | wall | 93.**516**.552 | **3,100.–** |
| | ceiling | 93.**516**.553 | **3,100.–** |

| **Accessories** | Item No. | € each |
|---|---|---|
| Mounting brackets for 1 single-sided clock, on wall, bracket length cir. 125 mm | 01.**516**.502 | **298.–** |
| Mounting brackets for 1 single-sided clock, on ceiling, bracket length cir. 130 mm | 01.**516**.503 | **298.–** |
| Metal covers for wall or ceiling mounting brackets | 01.**515**.537 | **196.–** |

| **Options** | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Additional 2-digit seconds display, height 38 or 57 mm | **-74** | **125.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

## Indoor
digital
single- and
double-sided

Type series
**516**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Clocks with rim-circle seconds indication
## ideal for broadcasting facilities and places of high publicity

**Indoor**
digital
single-sided

Type series
**525**

83.**525**.551 **-77** shown

83.**525**.551 **-77** shown

83.**525**.551 **-75 -77** shown

83.**525**.551 **-77 -88** shown

This 400 mm diameter wall clock as standard shows the digital time in hours and minutes and has a circumferencial ring of red LED bar marks that show the seconds, counting up. An additional 8-character alphanumeric LED display line makes this clock a veritable "information centre". Depending on the features selected this clock is capable of providing all the information required for the assigned function – exact, professional, attractive, and outright reliable!

**Possible indications:**
- 8-digit date display (24.09.2018)
- day of the week, spelled out (Monday)
- day of the week, abbreviated and date (Mon 24.09.)
- day of month and abbreviated month (24. Sep 18), multilingual
- additional display for seconds (48)
- stopwatch function (hh/mm/ss)
- temperature (20°C)
- city names at customer´s choice with corresponding world time and time-zone details (city pre-sets, see pages 140 and 141).

Whether as a single clock, as a calendar clock full of information or integrated as "master" or "slave" in a World Time Display System – this clock speaks all languages and meets all demands!

## Case

■ cir. 400 mm diameter
metal, as standard enamelled jet black (RAL 9005). Optionally, at a surcharge, custom enamelled or with stainless steel case (1.4301 X5CrNi 18-10, German trade name V2A), in a matted finish.
Protection grade IP 40 (EN 60 529).

## LED digital display(s)

4-digit hour and minute display, bar-type 7-segment LED ciphers, height 57 mm, colour red. Circumferencial ring of red LED bars indicating the seconds, counting up. Automatic brightness control. Hour offset or leading zero selectable via menu. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC/12 VAC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

## Alphanumeric display (option)

16-segment alphanumeric LED bar character display, up to 8 characters, character height 30 mm, to display numeric and alphanumeric information, e. g. day of the week, month, date, and seconds. At a surcharge, split and end times (stopwatch mode, option) or city names (option), can be displayed. Selection via menu. Alternating display possible. Various languages.

## Front glass

Flat, shock-resistant Plexiglas®.

## World Time Display System (option)

PEWETA LED digital clocks can be integrated into a professional and intelligent World Time Display System by the PEWETA *digital RS 485* data bus. Each individual LED digital clock receives the "pre-sets" pertaining to various time zones and city names. Upon selection of a time zone, local time will be displayed, regarding zone offset and local change-over dates for summer and winter time.

## Stopwatch mode (option)

These clocks can be fitted with a count up/count down/split time stopwatch mode. The 8-digit alphanumeric display (option) will show hours, minutes and seconds, counting up from start or down from a pre-selected value. The stopwatch system is controlled by a remote control unit (as an extra), for technical data see page 145.

| Clock type | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 230 VAC | 42.**525**.551 | **1,250.–** |
| DCF77 radio controlled clock[1] | 230 VAC | 52.**525**.551 | **1,375.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**525**.551 | **1,329.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**525**.551 | **1,329.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**525**.551 | **1,329.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**525**.551 | **1,379.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3] | PoE | 91.**525**.551 | **1,370.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 230 VAC | 93.**525**.551 | **1,390.–** |

| Accessory | Item No. | € each |
|---|---|---|
| Remote control unit "BASIC plus" for stopwatch function | 43.**548**.151 | **695.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case stainless steel V2A, matted finish | **-20** | **99.–** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| City pre-sets for World Time Clock Systems | **-75** | **139.–** |
| Additional 8-character alphanumeric display | **-77** | **295.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

## Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

43.**548**.151

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

**Indoor**
digital
single-sided

Type series
**525**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Clocks with rim-circle seconds indication
## ideal for broadcasting facilities and places of high publicity

**Indoor**
digital
single-sided

Type series
**526**

83.**526**.551 **-77** shown

83.**526**.551 **-77** shown

83.**526**.551 **-75 -77** shown

83.**526**.551 **-77 -88** shown

This 400 x 400 mm wall clock as standard shows the digital time in hours and minutes and has a circumferencial ring of red LED bar marks that show the seconds, counting up. An additional 8-character alphanumeric LED display line makes this clock a veritable "information centre". Depending on the features selected this clock is capable of providing all the information required for the assigned function – exact, professional, attractive, and outright reliable!

**Possible indications:**
- 8-digit date display (24. 09. 2018)
- day of the week, spelled out (Monday)
- day of the week, abbreviated and date (Mon 24. 09.)
- day of month and abbreviated month (24. Sep 18), multilingual
- additional display for seconds (48)
- stopwatch function (hh/mm/ss)
- temperature (20°C)
- city names at customer´s choice with corresponding world time and time-zone details (city pre-sets, see pages 140 and 141).

Whether as a single clock, as a calendar clock full of information or integrated as "master" or "slave" in a World Time Display System – this clock speaks all languages and meets all demands!

### Case
■ cir. 400 x 400 mm
metal, as standard enamelled jet black (RAL 9005). Optionally, at a surcharge, custom enamelled.
Protection grade IP 40 (EN 60 529).

### LED digital display(s)
4-digit hour and minute display, bar-type 7-segment LED ciphers, height 57 mm, colour red. Circumferencial ring of red LED bars indicating the seconds, counting up. Automatic brightness control. Hour offset or leading zero selectable via menu. Minimum 100 hours data retention in case of power loss. Operating voltage 230 VAC/50...60 Hz (12 VDC/12 VAC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Alphanumeric display (option)
16-segment alphanumeric LED bar character display, up to 8 characters, character height 30 mm, to display numeric and alphanumeric information, e. g. day of the week, month, date, and seconds. At a surcharge, split and end times (stopwatch mode, option) or city names (option), can be displayed. Selection via menu. Alternating display possible. Various languages.

### Front glass
Flat, shock-resistant Plexiglas®.

### World Time Display System (option)
PEWETA LED digital clocks can be integrated into a professional and intelligent World Time Display System by the PEWETA *digital RS 485* data bus. Each individual LED digital clock receives the "pre-sets" pertaining to various time zones and city names. Upon selection of a time zone, local time will be displayed, regarding zone offset and local change-over dates for summer and winter time.

### Stopwatch mode (option)
These clocks can be fitted with a count up/count down/split time stopwatch mode. The 8-digit alphanumeric display (option) will show hours, minutes and seconds, counting up from start or down from a pre-selected value. The stopwatch system is controlled by a remote control unit (as an accessory), for technical data see page 145.

| Clock type | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 230 VAC | 42.**526**.551 | **1,250.–** |
| DCF77 radio controlled clock[1] | 230 VAC | 52.**526**.551 | **1,375.–** |
| Slave clock, minute pulse 24 V | 230 VAC | 71.**526**.551 | **1,329.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**526**.551 | **1,329.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 VAC | 83.**526**.551 | **1,329.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 VAC | 85.**526**.551 | **1,379.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3] | PoE | 91.**526**.551 | **1,370.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 230 VAC | 93.**526**.551 | **1,390.–** |

| Accessory | Item No. | € each |
|---|---|---|
| Remote control unit "BASIC plus" for stopwatch function | 43.**548**.151 | **695.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Operating voltage 12 VDC (instead of 230 VAC) | **-70** | **none** |
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| City pre-sets for World Time Clock Systems | **-75** | **139.–** |
| Additional 8-character alphanumeric display | **-77** | **295.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS receiving aerial (IP 65/EN 60 529) | **-95** | **695.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

43.**548**.151

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

## Indoor
digital
single-sided

Type series
**526**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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# LED World Time Clocks

## as stand-alone units or combined into an integrated system

**Indoor**
digital
single-sided

Type series
**535**

42.**535**.521 shown

42.**535**.531 shown

These PEWETA World Time Displays can be used as stand-alone units as well as combined with further LED World Time Displays into an integrated system. Permanent text overlays below the time displayed indicate the names of the cities chosen. The software already contains the "pre-sets" pertaining to various time zones and city names, so that all units can easily be set up to always show the correct time.

42.**535**.911 shown

LED digital clock, 4 digits, cipher height 100 mm, local time display

### Case
- cir. 520 x 250 x 43 mm
- cir. 770 x 250 x 43 mm

sturdy metal case for on-wall mounting, as standard enamelled jet black (RAL 9005). Optionally, at a surcharge, custom enamelled.
Protection grade IP 40 (EN 60 529).

### LED digital display
- Cipher height 57 mm, 4 digits, for world time displays
- Cipher height 100 mm, 4 or 6 digits, for local time displays

bar-type 7-segment LED ciphers, colour red (optionally, at a surcharge, amber, green or blue), automatic brightness control. Hour offset or leading zero may be selected via menu. Minimum 100 hours data retention in case of power loss. Operating voltage 230 V AC/50...60 Hz.

### Front glass
Flat acrylic glass

### City "pre-set"
City "pre-sets" turn any PEWETA LED digital clock into an intelligent, professional World Time Clock. Each display unit will receive a custom "pre-set" according to the name of the city chosen by the customer. This setting includes the individual time zone and the individual dates for change-over from summer to winter time and vice versa. Manual adjustment by menu is possible.

### Alphanumeric LED digital display (option)
Alphanumeric LED digital display for city names instead of text overlays. 16-segment LED readout, max. 8 characters, character height 30 mm. The time zone desired and the name of the city are set by internal menu and may be changed at any time.

### Case options
On request, we offer further case variations for our LED World Time Clocks. Everything is possible: **stainless steel front panels**, cases for **in-wall mounting** or **double-sided** displays! Tell us about your requirements and we will be pleased to submit our quotation.

Display 42.**535**.521 with stainless steel front panel

42.**535**.521 **-72** shown

| Clock type | Cipher height | Dimensions (WHD) | Item No. | € each |
|---|---|---|---|---|
| World time display with 2 world times (hour/minute) | 57 mm | cir. 520 x 250 x 43 mm | 42.**535**.521 | **1,149.–** |
| World time display with 3 world times (hour/minute) | 57 mm | cir. 770 x 250 x 43 mm | 42.**535**.531 | **1,559.–** |
| Local time display, 4 digits (hour/minute) | 100 mm | cir. 520 x 250 x 43 mm | 42.**535**.911 | **1,049.–** |
| Local time display, 6 digits (hour/minute/second) | 100 mm | cir. 770 x 250 x 43 mm | 42.**535**.921 | **1,259.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 68) for synchronisation with local time | 03.**925**.151 | **149.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Alphanumeric LED display for city names (instead of fixed overlay), 8 digits, cipher height 30 mm (surcharge per display/time zone) | **-72** | **295.–** |
| Amber LEDs (57 mm cipher height only, surcharge per display/time zone) | **-78** | **39.–** |
| Green LEDs (57 mm cipher height only, surcharge per display/time zone) | **-79** | **79.–** |
| Blue LEDs (57 mm cipher height only, surcharge per display/time zone) | **-80** | **79.–** |
| *DCFport24* input for synchronisation with local time | **-93** | **89.–** |
| *AirPort24* input for synchronisation with local time | **-94** | **159.–** |
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |
| NTP input for system time synchronisation via LAN | **-98** | **159.–** |

## Examples of World Time Clock Systems

Compile your PEWETA World Time Clock System according to your individual ideas and requirements. Depending on the number of time zones desired, all types of PEWETA LED display units may be combined freely.

**World Time Clock System with 5 time zones**, consisting of 1 local time display (center) and 2 world time displays with 2 world times each

**World Time Clock System with 7 time zones**, consisting of 1 local time display (center) and 2 world time displays with 3 world times each

**World Time Clock System with 7 time zones**,
consisting of 1 world time display with 3 world times and 2 world time displays with 2 world times each

**Indoor**
digital
single-sided

Type series
**535**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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*Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number.*
*Alternatively, access our product data file on the Internet at www.peweta.com.*

# LED Digital Clocks

## as modules for mounting in 19" racks (1 modular height unit)

**Indoor**
digital
19" rack

Type series
**540**

Type series
**541**

71.**541**.250 shown

### Case

19" face plate, 1 HU, aluminium, enamelled black, acrylic front glass. W x H x D: cir. 400 x 44 x 100 mm. Protection grade IP 40 (EN 60 529).

### LED digital display

Display of hours, minutes, and seconds, 6 digits, bar-type 7-segment LED ciphers, height 25 mm, colour red. Choice of one or two 6-digit displays per rack module, individually selectable as either real time clock and/or stopwatch (optional). Automatic brightness control. Hour offset or leading zero may be selected via menu. Operating voltage 12 V DC (wall-plug adapter 230 V AC/12 V DC included in delivery shipment). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Stopwatch mode (option)

These clocks can be fitted with a count up/count down/split time stopwatch mode. The 6-digit numeric display (option) will show hours, minutes and seconds, counting up from start or down from a pre-selected value. The stopwatch system is controlled by a remote control unit (as an accessory), for technical data see page 145.

| Single display | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 12 V DC | 43.**540**.250 | **810.–** |
| DCF77 radio controlled clock[1] | 12 V DC | 53.**540**.250 | **965.–** |
| Slave clock, minute pulse 24 V | 12 V DC | 71.**540**.250 | **889.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**540**.250 | **889.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 12 V DC | 83.**540**.250 | **889.–** |
| Slave clock, *AirPort24* radio controlled telegram | 12 V DC | 85.**540**.250 | **995.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | PoE | 91.**540**.250 | **990.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 12 V DC | 93.**540**.250 | **990.–** |

| Double display | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 12 V DC | 43.**541**.250 | **1,210.–** |
| DCF77 radio controlled clock[1] | 12 V DC | 53.**541**.250 | **1,365.–** |
| Slave clock, minute pulse 24 V | 12 V DC | 71.**541**.250 | **1,289.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**541**.250 | **1,289.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 12 V DC | 83.**541**.250 | **1,289.–** |
| Slave clock, *AirPort24* radio controlled telegram | 12 V DC | 85.**541**.250 | **1,395.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | PoE | 91.**541**.250 | **1,390.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 12 V DC | 93.**541**.250 | **1,390.–** |

| Accessory | Item No. | € each |
|---|---|---|
| Remote control unit "BASIC plus" for stopwatch function | 43.**548**.151 | **695.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| RS 232 interface (output), incl. PC software for Windows | **-85** | **190.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

43.**548**.151

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.



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# LED Digital Clocks

## as modules for mounting in 19" racks (2 modular height units)

71.**542**.550 shown

**Indoor**
digital
19" rack

Type series
**542**

### Case

19" face plate, 2 HU, aluminium, enamelled black, acrylic front glass. W x H x D: cir. 400 x 88 x 40 mm. Protection grade IP 40 (EN 60 529).

### LED digital display

Display of hours, minutes, and seconds, 6 digits, bar-type 7-segment LED ciphers, height 57 mm, colour red (optionally amber, green or blue at a surcharge). Automatic brightness control. Hour offset or leading zero may be selected via menu. Operating voltage 12 V DC (wall-plug adapter 230 V AC/12 V DC included in delivery shipment) · Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Stopwatch mode (option)

These clocks can be fitted with a count up/count down/split time stopwatch mode. The 6-digit numeric display (option) will show hours, minutes and seconds, counting up from start or down from a pre-selected value. The stopwatch system is controlled by a remote control unit (as an accessory), for technical data see page 145.

| Clock type | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 12 V DC | 43.**542**.550 | **915.–** |
| DCF77 radio controlled clock[1] | 12 V DC | 53.**542**.550 | **1,070.–** |
| Slave clock, minute pulse 24 V | 12 V DC | 71.**542**.550 | **995.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**542**.550 | **995.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 12 V DC | 83.**542**.550 | **995.–** |
| Slave clock, *AirPort24* radio controlled telegram | 12 V DC | 85.**542**.550 | **1,100.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | PoE | 91.**542**.550 | **1,095.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 12 V DC | 93.**542**.550 | **1,095.–** |

| Accessory | Item No. | € each |
|---|---|---|
| Remote control unit "BASIC plus" for stopwatch function | 43.**548**.151 | **695.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| Amber LEDs | **-78** | **59.–** |
| Green LEDs | **-79** | **115.–** |
| Blue LEDs | **-80** | **115.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| RS 232 interface (output), incl. PC software for Windows | **-85** | **190.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Alternating temperature display (external temperature sensor included) | **-88** | **295.–** |
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |

### Options – just as *you* like them ...

These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

43.**548**.151

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

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# LED Digital Clocks
## for control panels and consoles

**Indoor**
digital
panel-mounted

Type series
**545**

71.**545**.250 shown

### Case
For flush panel mounting, face plate stainless steel (1.4301 X5CrNi 18/10, German trade name V2A), matted finish, acrylic front glass.
W x H x D: cir. 257 x 64 x 77 mm.
Protection grade IP 40 (EN 60 529).

### LED digital display
Display of hours, minutes, and seconds, 6 digits, bar-type 7-segment LED ciphers, height 25 mm, colour red. Automatic brightness control. Configurable as time display or for count-up/count-down function (option). Hour offset or leading zero may be selected via menu. Minimum 100 hours data retention in case of power loss. Operating voltage 230 V AC/50…60 Hz (12 V DC/AC optional). Under specific circumstances, the bus voltage may suffice to operate PEWETA *DCFport24* version clocks[2].

### Stopwatch mode (option)
These clocks can be fitted with a count up/count down/split time stopwatch mode. The 6-digit numeric display (option) will show hours, minutes and seconds, counting up from start or down from a pre-selected value. The stopwatch system is controlled by a remote control unit (as an accessory), for technical data see page 145.

| Technical data | | |
|---|---|---|
| **Case** | stainless steel V2A | matted finish |
| | dimensions (width x height x depth) | cir. 257 x 64 x 77 mm |
| | panel cut-out (width x height) | cir. 228 x 56 mm |
| **Display** | cipher height (hh/mm/ss) | 25 mm |
| | readability | cir. 5…7 m |
| **Power consumption** | | cir. 9 VA |

| Clock type | Operating voltage | Item No. | € each |
|---|---|---|---|
| Quartz clock | 230 V AC | 42.**545**.250 | **770.–** |
| DCF77 radio controlled clock[1] | 230 V AC | 52.**545**.250 | **925.–** |
| Slave clock, minute pulse 24 V | 230 V AC | 71.**545**.250 | **849.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | *DCFport24* | 81.**545**.250 | **849.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V | 230 V AC | 83.**545**.250 | **849.–** |
| Slave clock, *AirPort24* radio controlled telegram | 230 V AC | 85.**545**.250 | **955.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[1] | PoE | 91.**545**.250 | **950.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[4] | 230 V AC | 93.**545**.250 | **950.–** |

| Accessory | Item No. | € each |
|---|---|---|
| Remote control unit "BASIC plus" for stopwatch function | 43.**548**.151 | **695.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Stopwatch mode »count-up/count-down« (control unit is an accessory) | **-71** | **169.–** |
| PEWETA *digital RS 485* master (output) | **-82** | **98.–** |
| PEWETA *digital RS 485* slave (input) | **-83** | **98.–** |
| RS 232 interface (output), incl. PC software for Windows | **-85** | **190.–** |
| IRIG.B/AFNOR NF S 87-500 (input) | **-87** | **180.–** |
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

43.**548**.151

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] Due to power consumption the number of clocks within the system/network is limited. Please ask for details when interested.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.
[4] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.



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# Remote Control Unit

## for LED digital clocks equipped with stopwatch mode

This active, wire-bound "BASIC plus" remote control unit is capable of turning PEWETA LED digital clocks, via data bus interfaces *digital RS 485*, into stopwatches (stopwatch mode is an option) and acts as a terminal for their operation. The data bus system enables synchronous count-up/count-down functions of all connected LED digital clocks. Since each clock within the system can be addressed individually, one remote control unit can control several stopwatches in various locations or several remote control units, e. g. at different work stations, can simultaneously trigger one LED stopwatch (see page 9). These functions can, by means of software, be flexibly defined and can be easily selected by the user.

### Case

Sturdy plastic tip-up case for desktop use. 12-button numeric keypad, 6 digits (hh/mm/ss), bar-type 7-segment LED ciphers, cipher height 13 mm, colour red. Interface wire length cir. 2 m. Dimensions (length x width) cir. 175 x 105 mm.

### LED display

The 6-digit display of the remote control unit can be used as an additional stopwatch display or else can be used to retain the starting time. Operating voltage: bus voltage. Without any LED digital clock connected, the remote control unit can be used as a stand-alone local (desktop) stopwatch or time counter (a separate wall-plug adapter 230 VAC/12 VDC is required in this case).

### Functions

- Count-up (elapsed time)/count-down (time-to-go)
- taking split time(s)
- positive and/or negative start data for the next run may be entered whilst stopwatch is counting
- Especially for media production: addition/subtraction of time intervals during ongoing count-up/count-down
- 4 memory slots for storage of data.

43.**548**.151 shown

| Type | Item No. | € each |
|---|---|---|
| Quartz time base, PEWETA *digital RS 485* | 43.**548**.151 | **695.–** |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Wall plug adapter 230 VAC/12 VDC (necessary for "stand-alone" operation only) | **-68** | **59.–** |

**Remote control unit** for LED digital clocks

Type series **548**

# LCD Digital Clocks

## ideal for prestigious rooms and places of high publicity

**Indoor**
digital
single-sided

Type series
**550**

LCD digital clocks displaying hours and minutes. High definition, high contrast LCD display for outstanding readability even at extremely sharp angles.

### Case

Extra flat AluNox® metal case with anodized surface.

### LCD digital display

- cipher height 90 mm
- cipher height 140 mm

Single line LCD display, 4 digits, extra large black 9-segment ciphers showing hours and minutes. Optionally, room temperature may be displayed alternating with time.

52.**550**.991 shown

| Technical data | | Cipher height 90 mm | Cipher height 140 mm |
|---|---|---|---|
| Case | material | AluNox® | AluNox® |
| | dimensions (W x H x D) | cir. 400 x 250 x 28 mm | cir. 540 x 334 x 30 mm |
| Display | cipher height hours/minutes | 90 mm | 140 mm |
| | reading distance | cir. 35 m | cir. 50 m |
| Weight | | cir. 0.9 kg | cir. 1.2 kg |

| Clock type ▶ Cipher height | 90 mm Item No. | € each | 140 mm Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**550**.791 | **390.–** | 51.**550**.991 | **550.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | 52.**550**.791 | **480.–** | 52.**550**.991 | **640.–** |
| Slave clock, minute pulse 12/24 V[1] | 71.**550**.791 | **460.–** | 71.**550**.991 | **620.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V[2] | 81.**550**.791 | **460.–** | 81.**550**.991 | **620.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 31), for radio controlled types (required only if reception quality is poor) | 03.**925**.171 | **99.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Integrated power supply for 230 V AC mains operation instead of battery operation (on clock type 71.**xxx** only) | **-69** | **89.–** |
| Alternating room temperature display (**internal** temperature sensor) | **-91** | **69.–** |
| Alternating room temperature display (**external** temperature sensor, IP 31) | **-92** | **89.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**AluNox®**
AluNox® is an anodised aluminium. While resistant to corrosion, detergents, and disinfectants, it is also abrasion-proof. The surface of AluNox® is visually very similar to stainless steel with a matted finish, yet is noticeably lighter and impervious against fingerprints. Therefore, AluNox® is excellently suited for areas where its visual resemblance of stainless steel will mainly serve decorative purposes.

52.**550**.791

[1] Operation of the LCD display requires batteries (LR 6/AA type, included in delivery shipment) or an integrated power supply (optional).
[2] Operating voltage is supplied by the master clock via *DCFport24* pulse telegram (current draw cir. 10 mA).



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# LCD Digital Clocks with Date Line

## ideal for prestigious rooms and places of high publicity

LCD digital clocks with date line, sturdy case, available in silver or white. High definition, high contrast LCD display for outstanding readability even at extremely sharp angles.

### Case

Extra flat, sturdy plastic case enamelled metallic silver as standard. White enamel is optional without surcharge.

### LCD digital display

2-line LCD display with extra large black 9-segment ciphers, top line showing hours and minutes (4 digits, cipher height 74 mm), bottom line showing the date (6 digits, cipher height 54 mm), optionally with abbreviated day-of-week (2 characters). Optionally, room temperature may be displayed alternating with time or date.

71.**560**.791 shown

**Indoor**
digital
single-sided

Type series
**560**

| Technical data | | |
|---|---|---|
| **Case** | colour | silver, white (option) |
| | dimensions (W x H x D) | cir. 378 x 258 x 35 mm |
| **Display** | cipher height hours/minutes | 74 mm |
| | character height date | 54 mm |
| | reading distance | cir. 20 m |
| **Weight** | | cir. 1.3 kg |

| Clock type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**560**.791 | **680.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | 52.**560**.791 | **770.–** |
| Slave clock, minute pulse 12/24 V[1)] | 71.**560**.791 | **750.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V[2)] | 81.**560**.791 | **750.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 31), for radio controlled types (required only if reception quality is poor) | 03.**925**.171 | **99.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case enamelled white | **-00** | **none** |
| Case custom enamelled | **-10** | **on request** |
| Integrated power supply for 230 V AC mains operation instead of battery operation (on clock type 71.**xxx** only) | **-69** | **89.–** |
| Abbreviated day-of-week in date line (2 digits) | **-90** | **65.–** |
| Alternating room temperature display (**internal** temperature sensor) | **-91** | **69.–** |
| Alternating room temperature display (**external** temperature sensor, IP 31) | **-92** | **89.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

71.**560**.791 **-00 -90**

[1)] Operation of the LCD display requires batteries (LR 6/AA type, included in delivery shipment) or an integrated power supply (optional).
[2)] Operating voltage is supplied by the master clock via *DCFport24* pulse telegram (current draw cir. 10 mA).

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# LCD Digital Clocks with Date Display

## ideal for offices, conference rooms, and reception areas

**Indoor**
digital
single-sided

Type series
**565**

LCD digital clocks with date display, 3 lines with the day-of-week spelled out. High definition, high contrast LCD display for outstanding readability even at extremely sharp angles.

### Case

Extra flat AluNox® metal case with anodized surface.

### LCD digital display

3-line LCD display with extra large black 9- and 42-segment ciphers respectively, top line showing hours and minutes (4 digits, cipher height 59 mm), middle line showing the day-of-week spelled out (10 digits, character height 22 mm), bottom line showing the date (6 digits, cipher height 38 mm). Optionally, room temperature may be displayed alternating with time or date.

51.**565**.391 shown

| Technical data | | |
|---|---|---|
| **Case** | material | AluNox® |
| | dimensions (W x H x D) | cir. 318 x 285 x 26 mm |
| **Display** | cipher height hours/minutes | 59 mm |
| | character height date | 38 mm |
| | character height day-of-week | 22 mm |
| | reading distance | cir. 10 m |
| **Weight** | | cir. 0.9 kg |

| Clock type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**565**.391 | **495.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | 52.**565**.391 | **585.–** |
| Slave clock, minute pulse 12/24 V[1] | 71.**565**.391 | **565.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V[2] | 81.**565**.391 | **565.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 31), for radio controlled types (required only if reception quality is poor) | 03.**925**.171 | **99.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Integrated power supply for 230 V AC mains operation instead of battery operation (on clock type 71.**xxx** only) | **-69** | **89.–** |
| Alternating room temperature display (**internal** temperature sensor) | **-91** | **69.–** |
| Alternating room temperature display (**external** temperature sensor, IP 31) | **-92** | **89.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**AluNox®**
AluNox® is an anodised aluminium. While resistant to corrosion, detergents, and disinfectants, it is also abrasion-proof. The surface of AluNox® is visually very similar to stainless steel with a matted finish, yet is noticeably lighter and impervious against fingerprints. Therefore, AluNox® is excellently suited for areas where its visual resemblance of stainless steel will mainly serve decorative purposes.

[1] Operation of the LCD display requires batteries (LR 6/AA type, included in delivery shipment) or an integrated power supply (optional).
[2] Operating voltage is supplied by the master clock via *DCFport24* pulse telegram (current draw cir. 10 mA).



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# Analog Clocks with LCD Date Display

## ideal for offices, conference rooms, and reception areas

Classic analog clock combined with a 2-line, high definition, high contrast LCD display showing the day-of-week and the date.

### Case

Extra flat AluNox® metal case with anodized surface.

### Analog clock

Mechanical analog time display, face with Arabic numerals, print diameter cir. 247 mm. Exposed, black bar-type hands indicating hours and minutes, no front glass.

### LCD digital display

2-line, alphanumeric 42-segment LCD display, 12 digits, character height 26 mm, showing day-of-week spelled out and date. Various date display formats can be selected by menu. Optionally, room temperature may be displayed alternating with the date.

71.**568**.791 shown

**Indoor**
analog/digital
single-sided

Type series
**568**

| Technical data | | |
|---|---|---|
| **Case** | material | AluNox® |
| | dimensions (W x H x D) | cir. 280 x 403 x 30 mm |
| **Display** | cipher height hours/minutes | cir. 245 mm |
| | character height day-of-week/date | cir. 26 mm |
| | reading distance | cir. 10 m |
| **Weight** | | cir. 2 kg |

| Clock type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**568**.791 | **625.–** |
| DCF77 radio controlled clock, mains operated 230 VAC | 52.**568**.791 | **715.–** |
| Slave clock, minute pulse 12/24 V[1] | 71.**568**.791 | **695.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V[2] | 81.**568**.791 | **695.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 31), for radio controlled types (required only if reception quality is poor) | 03.**925**.171 | **99.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Integrated power supply for 230 VAC mains operation instead of battery operation (on clock type 71.**xxx** only) | **-69** | **89.–** |
| Alternating room temperature display (**internal** temperature sensor) | **-91** | **69.–** |
| Alternating room temperature display (**external** temperature sensor, IP 31) | **-92** | **89.–** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**AluNox®**
AluNox® is an anodised aluminium. While resistant to corrosion, detergents, and disinfectants, it is also abrasion-proof. The surface of AluNox® is visually very similar to stainless steel with a matted finish, yet is noticeably lighter and impervious against fingerprints. Therefore, AluNox® is excellently suited for areas where its visual resemblance of stainless steel will mainly serve decorative purposes.

[1] Operation of the LCD display requires batteries (LR 6/AA type, included in delivery shipment) or an integrated power supply (optional).
[2] Operating voltage is supplied by the master clock via *DCFport24* pulse telegram (current draw cir. 10 mA).

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Analog Clocks with LCD Date Display

## ideal for offices, conference rooms, and reception areas

**Indoor**
analog/digital
single-sided

Type series
**570**

Classic analog clock combined with a high definition, high contrast LCD display showing the date.

### Case
Extra flat, sturdy metal case, enamelled metallic silver.

### Analog clock
Mechanical analog time display, face with black bar markings, print diameter cir. 380 mm. Exposed, black bar-type hands indicating hours and minutes, no front glass.

### LCD digital display
Single line alphanumeric 42-segment LCD display, 12 digits, character height 40 mm, showing the date. Various date display formats can be selected by menu. Optionally, room temperature may be displayed alternating with the date.

52.**570**.791 shown

| Technical data | | |
|---|---|---|
| **Case** | material | aluminium |
| | colour | metallic silver |
| | dimensions (W x H x D) | cir. 430 x 525 x 30 mm |
| **Display** | face diameter | 380 mm |
| | cipher/character height date | 40 mm |
| | reading distance | cir. 20 m |
| **Weight** | | cir. 2.4 kg |

| Clock type | Item No. | € each |
|---|---|---|
| DCF77 radio controlled clock, battery operated 1.5 V | 51.**570**.791 | **799.–** |
| DCF77 radio controlled clock, mains operated 230 V AC | 52.**570**.791 | **889.–** |
| Slave clock, minute pulse 12/24 V[1] | 71.**570**.791 | **869.–** |
| Slave clock, *DCFport24* pulse telegram 12/24 V[2] | 81.**570**.791 | **869.–** |

| Accessory | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 31), for radio controlled types (required only if reception quality is poor) | 03.**925**.171 | **99.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Integrated power supply for 230 V AC mains operation instead of battery operation (on clock type 71.**xxx** only) | **-69** | **89.–** |
| Alternating room temperature display (**internal** temperature sensor) | **-91** | **69.–** |
| Alternating room temperature display (**external** temperature sensor, IP 31) | **-92** | **89.–** |

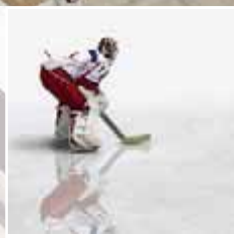
[1] Operation of the LCD display requires batteries (LR 6/AA type, included in delivery shipment) or an integrated power supply (optional).
[2] Operating voltage is supplied by the master clock via *DCFport24* pulse telegram (current draw cir. 10 mA).

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.) and under conditions of free radio propagation and may be impaired in heavily reinforced concrete structures. For this case we recommend a remotable DCF77 aerial (option).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*



*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*



**LED digital displays**
single-sided
indoor

# LED Digital Displays

## resistant to thrown balls

- **Time-/Date Displays**
- **Game Result Displays (Scoreboards)**

single-sided · indoor

*These digital displays are champions when it comes to displaying information and results doubt-free and easy to comprehend. Optimum clearness of display combined with premium quality – a professional choice in every aspect!*

# LED Digital Displays, indoor
## for sports, business, and industry

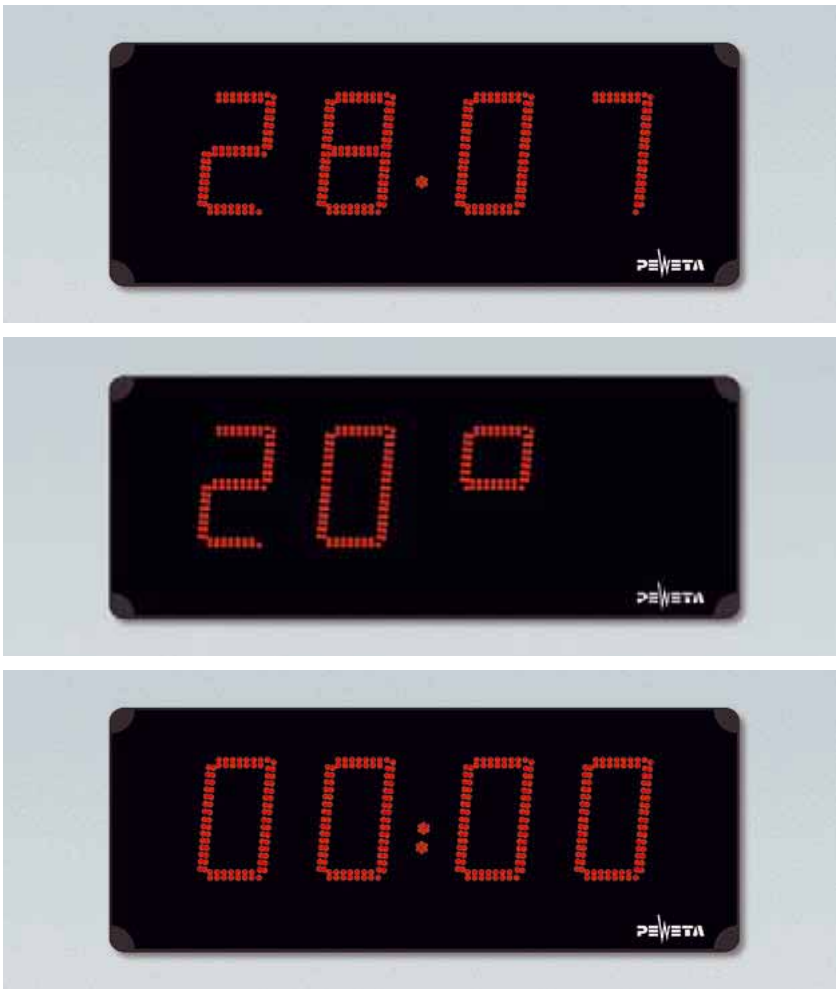
**LED digital displays**
single-sided
indoor

Type series
**610**

52.**610**.161 shown

Large, very sturdy digital displays with distinct, double-row LEDs, optimum readability for all kinds of large rooms and halls, including gymnasiums.

For sports applications, these LED digital displays can also be used as stopwatches. Besides basic count-up and count-down functions a complete training program with various cycles and breaks that starts automatically when triggered can be programmed using the infrared remote control, included in delivery shipment. An additional built-in buzzer resounding at the end of count-down, cycle and break can be supplied at a surcharge (option).




Examples show time, date, temperature (option), and stopwatch modes

**LED digital displays for outdoors**
see pages
178 and 179.

### Case
- cir. 830 x 320 x 90 mm (cipher height 160 mm)
- cir. 1230 x 400 x 90 mm (cipher height 250 mm)

very sturdy aluminium case, enamelled black.
Protection grade IP 40 (EN 60 529).

### Resistance to thrown balls
LED digital displays of this type series are resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3 and thus are suitable for gymnasiums and other indoor sporting facilities.

### Mounting
On-wall mounting.

### Front glass
Flat shock-resistant plastic glass.

### LED digital display
7-segment display technology, colour red, manual brightness control in 4 steps. 4-digit display with double-row LEDs showing hours and minutes, date, and temperature (option), either permanently or alternating, intervals adjustable. Operating voltage 230 V AC/50..60 Hz.

### Infrared remote control unit
All settings and the operation of the stopwatch mode are triggered by a wireless infrared remote control unit, included in delivery shipment.

### Stopwatch mode
This LED digital display can also be used as a stopwatch in count-up, count-down, and training modes. The 4-digit LED display shows minute and second readings. Operation by the wireless infrared remote control unit included.
Functions possible:
- **count-up** with split times
- **count-down** with indication of initial value
- **training** with adjustable number and duration of cycles and breaks.

**Further models**
of this type series with different cipher heights and/or with a 6-digit display (hh:mm:ss) are available on request .

| Technical data | | Cipher height 160 mm | Cipher height 250 mm |
|---|---|---|---|
| **Case** | colour | black (RAL 9005) | black (RAL 9005) |
| | dimensions (W x H x D) | cir. 830 x 320 x 90 mm | cir. 1230 x 400 x 90 mm |
| | weight | cir. 10 kg | cir. 15 kg |
| **LED display** | cipher height hours/minutes | cir. 160 mm | cir. 250 mm |
| | cipher colour | red | red |
| | reading distance | cir. 70 m | cir. 110 m |

| Type | Cipher height ▶ Operating voltage ▼ | 160 mm Item No. | € each | 250 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock | 230 V AC | 42.**610**.161 | **1,695.–** | 42.**610**.251 | **2,395.–** |
| DCF77 radio controlled clock[1)] | 230 V AC | 52.**610**.161 | **1,995.–** | 52.**610**.251 | **2,695.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 230 V AC | 83.**610**.161 | **1,795.–** | 83.**610**.251 | **2,495.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[2)] | 230 V AC | 93.**610**.161 | **on request** | 93.**610**.251 | **on request** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Alternating temperature display, external temperature sensor (IP 54) included | **-66** | **198.–** |
| Built-in buzzer, automatically resounding at the end of count-down, cycle, and break respectively in stopwatch mode (duration adjustable from 0 to 4 seconds) | **-67** | **225.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

[1)] A remotable DCF77 receiving aerial is included in delivery shipment.
[2)] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

## LED digital displays
single-sided
indoor

Type series
**610**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

**LED digital displays for outdoors**
see pages 178 and 179.

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# LED Game Result Displays/Scoreboards, indoor
## "Multisport", for most kinds of indoor sports

**LED game result displays**
single-sided
indoor

Type series
**676**

24.**676**.321 shown

Game result displays/scoreboards, in 7-Segment LED display technology, cipher heights 250 mm and 200 mm respectively, reading distance up to cir. 110 m. Outstandingly suited for most kinds of indoor sports, such as indoor soccer, handball, basketball, volleyball, hockey, badminton, and table tennis.

Sturdy metal case, enamelled black, for on-wall mounting, polycarbonate front glass treated for low reflectivity, resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3.

24.**676**.322 shown

Game result display board with LED text display for team names

**Soccer scoreboards for outdoors**
see pages 180 and 181.

## Scoreboard 24.676.321:

- **Time display** (250 mm), 4-digit, white, showing minutes and seconds of game time, time elapsed or time-to-go
- **Real time clock** (250 mm), showing current time in hours and minutes when no game is going on (instead of game time), quartz-based, optionally DCF77 radio controlled (including receiving aerial) or connected to a PEWETA Master Clock by means of a *DCFport24* interface (accessories)
- **Score** (250 mm), 3 digits (0..199) per team, red, showing score/final result
- **Period** (200 mm), 1 digit, green, showing current period of game
- **Penalty time** (200 mm), 3 digits per team, amber, showing penalty time remaining
- **Team fouls** (200 mm), 1 digit per team, amber, showing total fouls per team during basketball games (instead of penalty time)
- **Time-out,** 3 symbols per team (green dots), showing time-out periods taken
- **Service,** 1 symbol per team (red arrow), showing service or ball possession
- **Acoustic signal** (horn), built-in, indicates time-out, end of period or game over, may be triggered either automatically or manually (116 dB at 1 m)
- Permanent **HOME/GUEST** marking by self-adhesive film, available in various languages.

### Scope of delivery

- **1 control panel,** multi-lingual, data transfer by radio, frequency 868..869 MHz (standard), or wire-based (set of wires is an accessory), with LCD display and keyboard. 13 kinds of sports stored. Additional, freely programmable mode or training mode
- **1 wall plug adapter** for charging the rechargeable batteries of the control panel
- **1 hand-held control unit** to send start, stop, and time-out commands and to trigger the horn, incl. 2 m wire for hook-up with the control panel (if required)
- **1 transport case** (cir. 355 x 255 x 86 mm) to safely store control panel, control unit, and plug adapter.

## Scoreboard 24.676.322:

exactly as Scoreboard 24.**676**.321, however, additionally with

- **LED text display** (120 mm), amber, alphanumeric, to indicate the teams' names (instead of "HOME", "GUEST"), up to 9 characters per team, or to display information/advertisements with up to 20 characters in moving-script-method (up to 1,000 characters programmable). PC keyboard with connection wire to the control panel is included.

**Further models**
of this type series with 150 mm LED cipher height for small (single field) sports halls are available on request.

| Technical data | |
|---|---|
| **Data transmission** | wireless 868..869 MHz (standard)<br>or, additionally, wire-based (set of wires is an accessory) |
| **Case dimensions (WHD)** | cir. 1900 x 1150 x 90 mm |
| **Front cover** | polycarbonate treated for low reflectivity |
| **Character heights** | 250 mm and 200 mm, respectively |
| **Reading distance** | cir. 110 m, view angle cir. 160° |
| **Weight** | cir. 35 kg |
| **Operating voltage** | mains 220..230 V AC/50..60 Hz |

| Type | Item No. | € each |
|---|---|---|
| Scoreboard with HOME/GUEST marking by self-adhesive film | 24.**676**.321 | **4,490.–** |
| Scoreboard with LED text display | 24.**676**.322 | **5,990.–** |

| Accessories | Item No. | € each |
|---|---|---|
| DCF77 receiving aerial (IP65) for precise local time and fully automatic change-over of summer/winter time | 03.**925**.185 | **290.–** |
| Time display interface to import the *DCFport24* pulse telegram from a PEWETA type series 920 master clock | 04.**676**.000 | **95.–** |
| Set of wires for wire-based or wireless data transfer from control panel to scoreboard, 10 m of wire, plug, and socket included | 04.**676**.001 | **120.–** |
| Additional plug and socket A3 to control the panel from a further location (for wireless operation using set of wires 04.**676**.001) | 04.**676**.101 | **90.–** |

**Control panel and software**
Modes for 13 different kinds of sports plus an additional, freely programmable mode and a training mode (cycles and breaks adjustable) are stored in the control panel. Various parameters, like the duration of a game, extra time, time out, etc., can be adjusted as required, e. g. for youth teams. Up to 10 individual configurations with individual names such as "handball juniors" can be saved. Software updates can be loaded by flash drive using the built-in USB interface, e. g. in case of rule changes.

**LED game result displays**
single-sided
indoor

Type series
**676**

**Soccer scoreboards for outdoors**
see pages 180 and 181.

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# LED Game Result Displays/Scoreboards, indoor
## with penalty time display for **handball and hockey**

**LED game result displays**
single-sided
indoor

Type series
**676**

24.**676**.541 shown

Game result displays/scoreboards, in 7-Segment LED display technology, composed of a main scoreboard and a 3-line penalty time display. As a stand-alone-unit, the main scoreboard is suited for most kinds of indoor sports. For handball and hockey, the augmenting penalty time display can show up to 3 penalty times per team, along with a 2-digit player number.

Sturdy metal case, enamelled black, for on-wall mounting, polycarbonate front glass treated for low reflectivity, resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3.

24.**676**.542 shown

Game result display board with LED text display for team names

## Scoreboard 24.676.541:

- **Time display** (250 mm), 4-digit, white, showing minutes and seconds of game time, time elapsed or time-to-go
- **Real time clock** (250 mm), showing current time in hours and minutes when no game is going on (instead of game time), quartz-based, optionally DCF77 radio controlled (including receiving aerial) or connected to a PEWETA Master Clock by means of a *DCFport24* interface (accessories)
- **Score** (250 mm), 3 digits (0..199) per team, red, showing score/final result
- **Period** (200 mm), 1 digit, green, showing current period of game
- **Team fouls** (200 mm), 1 digit per team, amber, showing total fouls per team during basketball games (instead of penalty time)
- **Time-out,** 3 symbols per team (green dots), showing time-out periods taken
- **Service,** 1 symbol per team (red arrow), showing service or ball possession
- **Penalty time** (160 mm), 3 lines with 3 penalty times per team, each composed of 2-digit player number (white) and 3-digit penalty time (red), showing penalty time counting down
- **Acoustic signal** (horn), built-in, indicates time-out, end of period or game over, may be triggered either automatically or manually (116 dB at 1 m)
- Permanent **HOME/GUEST** marking by self-adhesive film, available in various languages.

### Scope of delivery

- **1 control panel,** multi-lingual, data transfer by radio, frequency 868..869 MHz (standard), or wire-based (set of wires is an accessory), with LCD display and keyboard. 13 kinds of sports stored. Additional freely programmable mode or training mode
- **1 wall plug adapter** for charging the rechargeable batteries of the control panel
- **1 hand-held control unit** to send start, stop, and time-out commands and to trigger the horn, incl. 2 m wire for hook-up with the control panel (if required)
- **1 transport case** (cir. 355 x 255 x 86 mm) to safely store control panel, control unit, and plug adapter.

## Scoreboard 24.676.542:

exactly as Scoreboard 24.**676**.541, however, additionally with

- **LED text display** (120 mm), amber, alphanumeric, to indicate the teams' names (instead of "HOME", "GUEST"), up to 9 characters per team, or to display information/advertisements with up to 20 characters in moving-script-method (up to 1,000 characters programmable). PC keyboard with connection wire to the control panel is included.

**Further models**
with 2-line penalty time display, either below or lateral to the main scoreboard, are available on request.

| Technical data | |
|---|---|
| **Data transmission** | wireless 868..869 MHz (standard)<br>or, additionally, wire-based (set of wires is an accessory) |
| **Case dimensions (WHD)** | cir. 1900 x 2000 x 90 mm |
| **Front cover** | polycarbonate treated for low reflectivity |
| **Character heights** | 250 mm, 200 mm, and 160 mm, respectively |
| **Reading distance** | cir. 110 m, view angle cir. 160° |
| **Weight** | cir. 50 kg |
| **Operating voltage** | mains 220..230 V AC/50..60 Hz |

| Type | Item No. | € each |
|---|---|---|
| Scoreboard with HOME/GUEST marking by self-adhesive film | 24.**676**.541 | **7,390.–** |
| Scoreboard with LED text display | 24.**676**.542 | **8,890.–** |

| Accessories | Item No. | € each |
|---|---|---|
| DCF77 receiving aerial (IP65) for precise local time and fully automatic change-over of summer/winter time | 03.**925**.185 | **290.–** |
| Time display interface to import the *DCFport24* pulse telegram from a PEWETA type series 920 master clock | 04.**676**.000 | **95.–** |
| Set of wires for wire-based or wireless data transfer from control panel to scoreboard, 10 m of wire, plug, and socket included | 04.**676**.001 | **120.–** |
| Additional plug and socket A3 to control the panel from a further location (for wireless operation using set of wires 04.**676**.001) | 04.**676**.101 | **90.–** |

**Control panel and software**
Modes for 13 different kinds of sports plus an additional, freely programmable mode and a training mode (cycles and breaks adjustable) are stored in the control panel. Various parameters, like the duration of a game, extra time, time out, etc., can be adjusted as required, e. g. for youth teams. Up to 10 individual configurations with individual names such as "handball juniors" can be saved. Software updates can be loaded by flash drive using the built-in USB interface, e. g. in case of rule changes.

**LED game result displays**
single-sided
indoor

Type series
**676**

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# LED Game Result Displays/Scoreboards, indoor
## with foul displays for **basketball**

**LED game result displays**
single-sided
indoor

Type series
**676**

24.**676**.551 shown

Game result displays/scoreboards, in 7-Segment LED display technology, composed of a main scoreboard and two 12-line foul displays. As a stand-alone-unit, the main scoreboard is suited for most kinds of indoor sports. For basketball, the two augmenting displays show player numbers and the number of their personal fouls.

Sturdy metal case, enamelled black, for on-wall mounting, polycarbonate front glass treated for low reflectivity, resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3.

Game result display board with LED text display for team names

24.**676**.552 shown

Combined game result display board with penalty time displays for handball or hockey and foul displays for basketball.
Item Numbers and prices on request

## Scoreboard 24.676.551:

- **Time display** (250 mm), 4-digit, white, showing minutes and seconds of game time, time elapsed or time-to-go.
- **Real time clock** (250 mm), showing current time in hours and minutes when no game is going on (instead of game time), quartz-based, optionally DCF77 radio controlled (including receiving aerial) or connected to a PEWETA Master Clock by means of a *DCFport24* interface (accessories)
- **Score** (250 mm), 3 digits (0..199) per team, red, showing score/final result
- **Period** (200 mm), 1 digit, green, showing current period of game
- **Penalty time** (200 mm), 3 digits per team, amber, showing penalty time counting down
- **Team fouls** (200 mm), 1 digit per team, amber, showing total fouls per team during basketball games (instead of penalty time)
- **Time-out,** 3 symbols per team (green dots), showing time-out periods taken
- **Service,** 1 symbol per team (red arrow), showing service or ball possession
- **Personal fouls** (90 mm), 12 lines per team, each line showing a 2-digit player number (white) as well as 4 amber dots (number of fouls) and 1 red dot (5th foul)
- **Acoustic signal** (horn), built-in, indicates time-out, end of period or game over, may be triggered either automatically or manually (116 dB at 1 m)
- Permanent **HOME/GUEST** marking by self-adhesive film, available in various languages.
- **Advertising panel**, cir. 1900 x 850 x 90 mm, for application of sponsors' or advertisers' logos.

### Scope of delivery

- **2 control panels,** multi-lingual, data transfer by radio, frequency 868..869 MHz (standard), or wire-based (set of wires is an accessory), with LCD display and keyboard. 13 kinds of sports stored. Additional freely programmable mode or training mode
- **1 wall plug adapter** for charging the rechargeable batteries of the control panel
- **1 hand-held control unit** to send start, stop, and time-out commands and to trigger the horn, incl. 2 m wire for hook-up with the control panel (if required)
- **2 transport cases** (cir. 355 x 255 x 86 mm) to safely store control panels, control unit, and plug adapter.

## Scoreboard 24.676.552:

exactly as Scoreboard 24.**676**.551, however, additionally with

- **LED text display** (120 mm), amber, alphanumeric, to indicate the teams' names (instead of "HOME", "GUEST"), up to 9 characters per team, or to display information/advertisements with up to 20 characters in moving-script-method (up to 1,000 characters programmable). PC keyboard with connection wire to the control panel is included.

**Further models**
with an additional penalty time display below the main scoreboard and/or with different cipher heights are available on request.

| Technical data | |
|---|---|
| **Data transmission** | wireless 868..869 MHz (standard)<br>or, additionally, wire-based (set of wires is an accessory) |
| **Case dimensions (WHD)** | cir. 3200 x 2000 x 90 mm |
| **Front cover** | polycarbonate treated for low reflectivity |
| **Character heights** | 250 mm, 200 mm, and 90 mm, respectively |
| **Reading distance** | cir. 110 m, view angle cir. 160° |
| **Weight** | cir. 120 kg |
| **Operating voltage** | mains 220..230 V AC/50..60 Hz |

| Type | Item No. | € each |
|---|---|---|
| Scoreboard with HOME/GUEST marking by self-adhesive film | 24.**676**.551 | **11,990.–** |
| Scoreboard with LED text display | 24.**676**.552 | **13,490.–** |

| Accessories | Item No. | € each |
|---|---|---|
| DCF77 receiving aerial (IP65) for precise local time and fully automatic change-over of summer/winter time | 03.**925**.185 | **290.–** |
| Time display interface to import the *DCFport24* pulse telegram from a PEWETA type series 920 master clock | 04.**676**.000 | **95.–** |
| Set of wires for wire-based or wireless data transfer from control panel to scoreboard, 10 m of wire, plug, and socket included | 04.**676**.001 | **120.–** |
| Additional plug and socket A3 to control the panel from a further location (for wireless operation using set of wires 04.**676**.001) | 04.**676**.101 | **90.–** |

**Control panel and software**
Modes for 13 different kinds of sports plus an additional, freely programmable mode and a training mode (cycles and breaks adjustable) are stored in the control panel. Various parameters, like the duration of a game, extra time, time out, etc., can be adjusted as required, e. g. for youth teams. Up to 10 individual configurations with individual names such as "handball juniors" can be saved. Software updates can be loaded by flash drive using the built-in USB interface, e. g. in case of rule changes.

**LED game result displays**
single-sided
indoor

Type series
**676**

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# LED 14-/24-Second Display Boards, indoor
## for **basketball**, with or without time display

**LED game result displays**
single-sided
indoor

Type series
**676**

Augmenting display boards, resistant to thrown balls, for displaying attack time during a basketball game (24-seconds-rule). Shipment in pairs. Operation in connection with an LED scoreboard of type series 676 only!

Sturdy black plastic case for on-wall mounting or for mounting on substructure supplied by client. Polycarbonate front glass treated for low reflectivity, resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3.

- **Type 24.676.613:**
- **Attack time (230 mm)**, 2-digit, red, showing the duration of current attack (adjustable to 14 or 24 seconds), counting down. Tenths of seconds shown during final 5 seconds
- **State of game**, 1 illuminated red dot, showing time-out
- **Acoustic signal** (horn), built-in, automatically resounds after end of attack time (116 dB at 1 m).

- **Type 24.676.622:**
- **Time display (160 mm)**, 4-digit, amber, showing game time elapsed (taken over from main scoreboard)
- **Attack time (250 mm)**, 2-digit, red, showing the duration of current attack (adjustable to 14 or 24 seconds), counting down. Tenths of seconds shown during final 5 seconds
- **State of game**, 1 illuminated red dot, showing time-out
- **Acoustic signal** (horn), built-in, automatically resounds after end of attack time (116 dB at 1 m).

### Scope of delivery

- **2 displays** acc. to description
- **1 hand-held control unit** to be connected to the control unit of the main scoreboard, including 2 m of wire. Separate keys to adjust to 14 or 24 seconds (new FIBA rule of October 2014)
- **1 transport case** (cir. 265 x 225 x 50 mm) to safely store control unit and wire.

**Further models**
of these 14-/24-second display boards for stand-alone operation (without connection to a main LED scoreboard of type series 676) available on request.

24.**676**.622 shown

| Technical data | |
|---|---|
| Data transmission | via main display panel |
| Front cover | polycarbonate treated for low reflectivity |
| Reading distance | cir. 80 m |
| Weight per unit | cir. 2,5 kg (24.676.**613**), cir. 6 kg (24.676.**622**) |
| Operating voltage | mains 220..230 V AC/50..60 Hz |

| Type | Cipher heights | Dimensions WHD per display | Item No. | € each |
|---|---|---|---|---|
| 1 line, **without** (game) time display | 230 mm | 500 x 300 x 65 mm | 24.**676**.613 | **1,890.–** |
| 2 lines, **with** (game) time display | 160/250 mm | 870 x 570 x 90 mm | 24.**676**.622 | **4,750.–** |

24.**676**.613 shown



*All prices on this page include shipping cost inside Germany (islands excluded), VAT added for deliveries inside Germany. Prices shown as of January 1st, 2017, subject to change without notice. If you desire additional information, please order the detailed Type information sheet, quoting the Item No. Alternatively, access our product data file on the internet at www.peweta.com.*

**Outdoor**
analog and
digital
single, double
and four faces

# Outdoor Clocks

## analog and digital
## single, double and four faces

*Time displayed outdoors, in a modern analog clock or displayed digitally alternating with date and temperature, ideally combined with your company´s logo, has always been and still is a public service information in high demand. Take advantage of this demand by using PEWETA outdoor clocks and display systems! Water protected and resistant against weather and other environmental influences.*

# Outdoor Clocks

## single face, round, **not backlighted**

**Outdoor**
analog
single face

Type series
**730**

71.**730**.421 shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks. Solid workmanship, not backlighted, weather protected case (IP 54/EN 60 529).

Also available "resistant to thrown balls" according to DIN 18 032, part 3.

71.**730**.411

**indoor clocks resistant to thrown balls**
see pages 76...79.

### Case
- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic dark gun metal (DB 703) or, as an option, enamelled in metallic silver grey (RAL 9006) or custom enamelled, as listed below.
Extraordinarily solid construction, absolutely corrosion resistant and weatherproof.
Protection grade IP 54 (EN 60 529).

### Mounting
Wall mounting.

### Resistance to thrown balls acc. to DIN 18 032, part 3 (option)
Clocks of this type series are also available resistant to thrown balls and thus suitable for school yards and sporting facilities. Very sturdy case with three-point mounting as a safeguard, proof against wrenching of the hook. Front glass is a 2-layer laminated safety glass, 6 mm thick. The clocks are certified and labelled "resistant to thrown balls according to DIN 18 032, part 3".

### Front glass
Flat shock-resistant Plexiglas® XT (PMMA) as standard.

### Face
High distinction white metal, choice of large black Arabic numerals or large black DIN bar markings. Very distinctive and easy doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm resp. 620 mm. Faces printed according to DIN 41 091.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute.

Red second hand or distinct "Railway Station Clock" style red second hand with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Outdoor**
analog
single face

Type series
**730**

| Arabic numerals ▼ Clock type — Face diameter ▶ | 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**730**.411 | **535.–** | 21.**730**.511 | **625.–** | 21.**730**.611 | **761.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V [1) 2)] | 51.**730**.411 | **809.–** | 51.**730**.511 | **899.–** | 51.**730**.611 | **1,095.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [2)] | 52.**730**.411 | **848.–** | 52.**730**.511 | **938.–** | 52.**730**.611 | **1,134.–** |
| Slave clock, minute pulse 12...60 V | 71.**730**.411 | **509.–** | 71.**730**.511 | **599.–** | 71.**730**.611 | **735.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**730**.411 | **714.–** | 72.**730**.511 | **804.–** | 72.**730**.611 | **933.–** |
| Slave clock, min. pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.**730**.411 | **899.–** | 74.**730**.511 | **989.–** | 74.**730**.611 | **1,125.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**730**.411 | **589.–** | 81.**730**.511 | **679.–** | 81.**730**.611 | **815.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 2 x 1.5 V [1)] | 84.**730**.411 | **709.–** | 84.**730**.511 | **799.–** | 84.**730**.611 | **935.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**730**.411 | **748.–** | 85.**730**.511 | **838.–** | 85.**730**.611 | **974.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3)] | 91.**730**.411 | **819.–** | 91.**730**.511 | **909.–** | 91.**730**.611 | **1,045.–** |

| DIN bar markings ▼ Clock type — Face diameter ▶ | 420 mm Item No. | € each | 520 mm Item No. | € each | 620 mm Item No. | € each |
|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | 21.**730**.421 | **535.–** | 21.**730**.521 | **625.–** | 21.**730**.621 | **761.–** |
| DCF77 radio controlled clock, battery operated 2 x 1.5 V [1) 2)] | 51.**730**.421 | **809.–** | 51.**730**.521 | **899.–** | 51.**730**.621 | **1,095.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [2)] | 52.**730**.421 | **848.–** | 52.**730**.521 | **938.–** | 52.**730**.621 | **1,134.–** |
| Slave clock, minute pulse 12...60 V | 71.**730**.421 | **509.–** | 71.**730**.521 | **599.–** | 71.**730**.621 | **735.–** |
| Slave clock, minute/second pulse 12/24 V | 72.**730**.421 | **714.–** | 72.**730**.521 | **804.–** | 72.**730**.621 | **933.–** |
| Slave clock, min. pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.**730**.421 | **899.–** | 74.**730**.521 | **989.–** | 74.**730**.621 | **1,125.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 81.**730**.421 | **589.–** | 81.**730**.521 | **679.–** | 81.**730**.621 | **815.–** |
| Slave clock, *AirPort24* radio controlled telegram, battery op. 2 x 1.5 V [1)] | 84.**730**.421 | **709.–** | 84.**730**.521 | **799.–** | 84.**730**.621 | **935.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**730**.421 | **748.–** | 85.**730**.521 | **838.–** | 85.**730**.621 | **974.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3)] | 91.**730**.421 | **819.–** | 91.**730**.521 | **909.–** | 91.**730**.621 | **1,045.–** |

| Options | 420 mm Suffix | Surcharge € each | 520 mm Suffix | Surcharge € each | 620 mm Suffix | Surcharge € each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** | **-05** | **none** | **-05** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-40** | **on request** | **-40** | **on request** | **-40** | **on request** |
| Resistance to thrown balls acc. to DIN 18032, part 3 | **-59** | **169.–** | **-59** | **169.–** | **-59** | **169.–** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| ? custom enamelled | **-10** |

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1)] Alkaline batteries are included in delivery shipment (medium lifespan: cir. 4 years).
[2)] A remotable DCF77 receiving aerial is included in delivery shipment.
[3)] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**indoor clocks resistant to thrown balls**
see pages 76...79.

# Outdoor Clocks

## double face, round, **not backlighted**

**Outdoor**
analog
double face

Type series
**732**

74.**732**.522 **–41** shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks. Solid workmanship, not backlighted, weather protected case (IP 54/EN 60 529).

71.**732**.512

### Case
- cir. 446 mm diameter
- cir. 546 mm diameter
- cir. 646 mm diameter

very sturdy metal case, enamelled metallic dark gun metal (DB 703) or, as an option, enamelled in metallic silver grey (RAL 9006) or custom enamelled, as listed below.
Extraordinarily solid construction, absolutely corrosion resistant and weatherproof.
Protection grade IP 54 (EN 60 529).

### Mounting
Choice of double bracket wall or ceiling mounting, standard bracket length cir. 210 mm.

### Front glasses
Flat shock-resistant Plexiglas® XT (PMMA).

### Faces
High distinction white metal, choice of large black Arabic numerals or large black DIN bar markings. Very distinctive and easy doubt-free reading even over longer distances. Visible face diameter 420 mm, 520 mm resp. 620 mm. Faces printed according to DIN 41 049.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute.
Red second hands or distinct red "Railway Station Clock" style second hands with "eye" on synchronous clocks (**21**.xxx), on minute/second pulse clocks (**72**.xxx) and on clocks with synchronous second hands (**74**.xxx) only.

**Double face clocks**
Double face clocks come completely wired and pre-assembled.
Just mount them and plug in – **that's it!**

## Outdoor
analog
double face

Type series **732**

| Arabic numerals<br>▼ Clock type | Face diameter ▶<br>Mounting ▼ | 420 mm<br>Item No. | € each | 520 mm<br>Item No. | € each | 620 mm<br>Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**732**.412 | **1,155.–** | 21.**732**.512 | **1,335.–** | 21.**732**.612 | **1,535.–** |
| | ceiling | 21.**732**.413 | **1,155.–** | 21.**732**.513 | **1,335.–** | 21.**732**.613 | **1,535.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [1] | wall | 52.**732**.412 | **1,418.–** | 52.**732**.512 | **1,598.–** | 52.**732**.612 | **1,798.–** |
| | ceiling | 52.**732**.413 | **1,418.–** | 52.**732**.513 | **1,598.–** | 52.**732**.613 | **1,798.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**732**.412 | **1,059.–** | 71.**732**.512 | **1,239.–** | 71.**732**.612 | **1,439.–** |
| | ceiling | 71.**732**.413 | **1,059.–** | 71.**732**.513 | **1,239.–** | 71.**732**.613 | **1,439.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**732**.412 | **1,469.–** | 72.**732**.512 | **1,649.–** | 72.**732**.612 | **1,849.–** |
| | ceiling | 72.**732**.413 | **1,469.–** | 72.**732**.513 | **1,649.–** | 72.**732**.613 | **1,849.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**732**.412 | **1,839.–** | 74.**732**.512 | **2,019.–** | 74.**732**.612 | **2,219.–** |
| | ceiling | 74.**732**.413 | **1,839.–** | 74.**732**.513 | **2,019.–** | 74.**732**.613 | **2,219.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.**732**.412 | **1,129.–** | 81.**732**.512 | **1,309.–** | 81.**732**.612 | **1,509.–** |
| | ceiling | 81.**732**.413 | **1,129.–** | 81.**732**.513 | **1,309.–** | 81.**732**.613 | **1,509.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**732**.412 | **1,318.–** | 85.**732**.512 | **1,498.–** | 85.**732**.612 | **1,698.–** |
| | ceiling | 85.**732**.413 | **1,318.–** | 85.**732**.513 | **1,498.–** | 85.**732**.613 | **1,698.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | wall | 91.**732**.412 | **1,389.–** | 91.**732**.512 | **1,569.–** | 91.**732**.612 | **1,769.–** |
| | ceiling | 91.**732**.413 | **1,389.–** | 91.**732**.513 | **1,569.–** | 91.**732**.613 | **1,769.–** |

| DIN bar markings<br>▼ Clock type | Face diameter ▶<br>Mounting ▼ | 420 mm<br>Item No. | € each | 520 mm<br>Item No. | € each | 620 mm<br>Item No. | € each |
|---|---|---|---|---|---|---|---|
| Synchronous clock, mains operated 230 VAC/50 Hz | wall | 21.**732**.422 | **1,155.–** | 21.**732**.522 | **1,335.–** | 21.**732**.622 | **1,535.–** |
| | ceiling | 21.**732**.423 | **1,155.–** | 21.**732**.523 | **1,335.–** | 21.**732**.623 | **1,535.–** |
| DCF77 radio controlled clock, mains operated 230 VAC [1] | wall | 52.**732**.422 | **1,418.–** | 52.**732**.522 | **1,598.–** | 52.**732**.622 | **1,798.–** |
| | ceiling | 52.**732**.423 | **1,418.–** | 52.**732**.523 | **1,598.–** | 52.**732**.623 | **1,798.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**732**.422 | **1,059.–** | 71.**732**.522 | **1,239.–** | 71.**732**.622 | **1,439.–** |
| | ceiling | 71.**732**.423 | **1,059.–** | 71.**732**.523 | **1,239.–** | 71.**732**.623 | **1,439.–** |
| Slave clock, minute/second pulse 12/24 V | wall | 72.**732**.422 | **1,469.–** | 72.**732**.522 | **1,649.–** | 72.**732**.622 | **1,849.–** |
| | ceiling | 72.**732**.423 | **1,469.–** | 72.**732**.523 | **1,649.–** | 72.**732**.623 | **1,849.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**732**.422 | **1,839.–** | 74.**732**.522 | **2,019.–** | 74.**732**.622 | **2,219.–** |
| | ceiling | 74.**732**.423 | **1,839.–** | 74.**732**.523 | **2,019.–** | 74.**732**.623 | **2,219.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | wall | 81.**732**.422 | **1,129.–** | 81.**732**.522 | **1,309.–** | 81.**732**.622 | **1,509.–** |
| | ceiling | 81.**732**.423 | **1,129.–** | 81.**732**.523 | **1,309.–** | 81.**732**.623 | **1,509.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**732**.422 | **1,318.–** | 85.**732**.522 | **1,498.–** | 85.**732**.622 | **1,698.–** |
| | ceiling | 85.**732**.423 | **1,318.–** | 85.**732**.523 | **1,498.–** | 85.**732**.623 | **1,698.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [2] | wall | 91.**732**.422 | **1,389.–** | 91.**732**.522 | **1,569.–** | 91.**732**.622 | **1,769.–** |
| | ceiling | 91.**732**.423 | **1,389.–** | 91.**732**.523 | **1,569.–** | 91.**732**.623 | **1,769.–** |

| Options | 420 mm<br>Suffix | Surcharge<br>€ each | 520 mm<br>Suffix | Surcharge<br>€ each | 620 mm<br>Suffix | Surcharge<br>€ each |
|---|---|---|---|---|---|---|
| Case enamelled in metallic silver grey RAL 9006 | **-05** | **none** | **-05** | **none** | **-05** | **none** |
| Case custom enamelled | **-10** | **on request** | **-10** | **on request** | **-10** | **on request** |
| Distinct red "Railway Station Clock" style second hand with "eye" (on clock types **21**.xxx, **72**.xxx, and **74**.xxx only) | **-41** | **on request** | **-41** | **on request** | **-41** | **on request** |

| Case colour | Suffix |
|---|---|
| metallic silver grey RAL 9006 | **-05** |
| ? custom enamelled | **-10** |

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

# Outdoor Clocks (also suitable for large halls)
single face, round, **backlighted by LED**

**Outdoor**
analog
single face

Type series
**750**

74.**750**.621 shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks, also suitable for indoors. Solid workmanship, **backlighted by LED**, weather protected case (IP 54/EN 60 529).

71.**750**.621 **–48**

Clocks of this type series with Arabic numerals bear the Item Number suffix **–48**.

### Case
- cir. 670 mm diameter
- cir. 902 mm diameter

weatherproof aluminium case. Outside 2-layer tempered enamel, light grey (RAL 7035). Optionally custom enamelled, at a surcharge. Extraordinarily solid construction, incl. light fitting. Absolutely corrosion resistant and weatherproof. Protection grade IP 54 (EN 60 529).

### Mounting
On-wall mounting as standard. At a surcharge, a wall or ceiling mounting bracket or a pole adapter are available as options.

### Front glass
Shock-resistant, highly transparent 4 mm Plexiglas® XT. For locations prone to impact or public areas, unbreakable Makrolon® (polycarbonate) front glass is available as an option.

### Face (backlighted)
Acrylic plastic, white, translucent, 5 mm thick, large black DIN bar markings (or black Arabic numerals as an option). Very distinctive and easy doubt-free reading even over longer distances.
Face printed according to DIN 41 049.

### Illumination
Backlighting by durable, maintenance-free light-emitting diodes (LEDs), operating voltage 230 VAC/50…60 Hz. As an option, a light-sensitive switch can be included.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute. Distinctive red "Railway Station clock" type second hand with "eye" on slave clock with synchronous second hand (**74**.xxx) only.
No second hand on other clock types.

## Outdoor
analog
single face

Type series
**750**

| Clock type | Face diameter ▶ 600 mm Item No. | € each | 800 mm Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.**750**.621 | **1,795.–** | 52.**750**.821 | **2,345.–** |
| Slave clock, minute pulse 12…60 V | 71.**750**.621 | **1,345.–** | 71.**750**.821 | **1,895.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | 74.**750**.621 | **1,970.–** | 74.**750**.821 | **2,520.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | 81.**750**.621 | **1,695.–** | 81.**750**.821 [2] | **2,245.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | 85.**750**.621 | **1,925.–** | 85.**750**.821 | **2,475.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | 91.**750**.621 | **2,095.–** | 91.**750**.821 | **2,645.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **on request** |
| Wall or ceiling mounting bracket for single face outdoor clocks, standard length 240 mm | **-34** | **215.–** |
| Pole adapter for lateral mounting by means of stainless steel tightening straps (not included) | **-35** | **290.–** |
| Pole adapter for central mounting (mounting bracket, length cir. 300 mm) | **-36** | **on request** |
| Light-sensitive switch for internal illumination | **-44** | **195.–** |
| Custom logo on clock face | **-47** | **on request** |
| Face with Arabic numerals instead of DIN bar markings | **-48** | **on request** |
| Unbreakable Makrolon® front glass instead of Plexiglas® (for 670 mm diameter clocks only) | **-55** | **295.–** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] *DCFport24* pulse telegram slave clocks with 800 mm face diameter require a 230 VAC power supply.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

*All prices on this page include shipping cost inside Germany (islands excluded), VAT added for deliveries inside Germany. Prices shown as of January 1st, 2017, subject to change without notice. If you desire additional information, please order the detailed Type information sheet, quoting the Item No. Alternatively, access our product data file on the internet at www.peweta.com.*

# Outdoor Clocks (also suitable for large halls)
double face, round, **backlighted by LED**

**Outdoor**
analog
double face

Type series
**752**

74.**752**.622 shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks, also suitable for indoors. Solid workmanship, **backlighted by LED**, weather protected case (IP 54/EN 60 529).

71.**752**.622 **–48**

Clocks of this type series with Arabic numerals bear the Item Number suffix **–48**.

### Case
- cir. 670 mm diameter
- cir. 902 mm diameter

weatherproof aluminium case. Outside 2-layer tempered enamel, light grey (RAL 7035). Optionally custom enamelled, at a surcharge. Extraordinarily solid construction, incl. light fitting. Absolutely corrosion resistant and weatherproof. Protection grade IP 54 (EN 60 529).

### Mounting
Choice of wall or ceiling mounting, standard length cir. 240 mm. Optionally, at a surcharge, a ceiling suspension in extended length, cir. 480 mm, or a pole adapter are available.

### Front glasses
Shock-resistant, highly transparent 4 mm Plexiglas® XT. For locations prone to impact or public areas, unbreakable Makrolon® (polycarbonate) front glasses are available as an option.

### Faces (backlighted)
Acrylic plastic, white, translucent, 5 mm thick, large black DIN bar markings (or black Arabic numerals as an option). Very distinctive and easy doubt-free reading even over longer distances. Faces printed according to DIN 41 049.

### Illumination
Backlighting by durable, maintenance-free light-emitting diodes (LEDs), operating voltage 230 VAC/50…60 Hz. As an option, a light-sensitive switch can be included.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute. Distinctive red "Railway Station clock" type second hands with "eye" on slave clock with synchronous second hands (**74**.xxx) only.

No second hands on other clock types.

## Outdoor
analog
double face

Type series
**752**

| Clock type | Face diameter ▶ Mounting ▼ | 600 mm Item No. | € each | 800 mm Item No. | € each |
|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC[1] | wall | 52.**752**.622 | **2,140.–** | 52.**752**.822 | **3,095.–** |
| | ceiling | 52.**752**.623 | **2,140.–** | 52.**752**.823 | **3,095.–** |
| Slave clock, minute pulse 12…60 V | wall | 71.**752**.622 | **1,690.–** | 71.**752**.822 | **2,645.–** |
| | ceiling | 71.**752**.623 | **1,690.–** | 71.**752**.823 | **2,645.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**752**.622 | **2,680.–** | 74.**752**.822 | **3,635.–** |
| | ceiling | 74.**752**.623 | **2,680.–** | 74.**752**.823 | **3,635.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | wall | 81.**752**.622 | **2,040.–** | 81.**752**.822[2] | **2,995.–** |
| | ceiling | 81.**752**.623 | **2,040.–** | 81.**752**.823[2] | **2,995.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**752**.622 | **2,270.–** | 85.**752**.822 | **3,225.–** |
| | ceiling | 85.**752**.623 | **2,270.–** | 85.**752**.823 | **3,225.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3] | wall | 91.**752**.622 | **2,440.–** | 91.**752**.822 | **3,395.–** |
| | ceiling | 91.**752**.623 | **2,440.–** | 91.**752**.823 | **3,395.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **on request** |
| Ceiling suspension extended length, cir. 480 mm | **-32** | **139.–** |
| Pole adapter for lateral mounting by means of stainless steel tightening straps (not included) | **-35** | **75.–** |
| Pole adapter for central mounting (mounting bracket, length cir. 300 mm) | **-36** | **on request** |
| Light-sensitive switch for internal illumination | **-44** | **195.–** |
| Custom logo on clock face | **-47** | **on request** |
| Face with Arabic numerals instead of DIN bar markings | **-48** | **on request** |
| Unbreakable Makrolon® front glasses instead of Plexiglas® (for 670 mm diameter clocks only) | **-56** | **590.–** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] *DCFport24* pulse telegram slave clocks with 800 mm face diameter require a 230 VAC power supply.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Outdoor Clocks (also suitable for large halls)
## single face, square, **backlighted by LED**

**Outdoor**
analog
single face

Type series
**760**

74.**760**.621 shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks, also suitable for indoors. Solid workmanship, **backlighted by LED**, weather protected case (IP 54/EN 60 529).

71.**760**.621 **–48**

Clocks of this type series with Arabic numerals bear the Item Number suffix **–48**.

### Case
- cir. 442 x 442 mm
- cir. 642 x 642 mm
- cir. 842 x 842 mm

weatherproof aluminium case. Outside 2-layer tempered enamel, light grey (RAL 7035). Optionally custom enamelled, at a surcharge. Extraordinarily solid construction, incl. light fitting. Absolutely corrosion resistant and weatherproof. Protection grade IP 54 (EN 60 529).

### Mounting
On-wall mounting as standard. At a surcharge, a wall or ceiling mounting bracket or a pole adapter are available as options

### Front glass
Shock-resistant, highly transparent 4 mm Plexiglas® XT. For locations prone to impact or public areas, unbreakable Makrolon® (polycarbonate) front glass is available as an option.

### Face (backlighted)
Acrylic plastic, white, translucent, 5 mm thick, large black DIN bar markings (or black Arabic numerals as an option). Very distinctive and easy doubt-free reading even over longer distances.
Face printed according to DIN 41 049.

### Illumination
Backlighting by durable, maintenance-free light-emitting diodes (LEDs), operating voltage 230 VAC/50…60 Hz. As an option, a light-sensitive switch can be included.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute. Distinctive red "Railway Station clock" type second hand with "eye" on slave clock with synchronous second hand (**74**.xxx) only.

No second hand on other clock types.

## Outdoor
analog
single face

Type series
**760**

| Clock type ▶ Face dimensions | 400 x 400 mm Item No. | € each | 600 x 600 mm Item No. | € each | 800 x 800 mm Item No. | € each |
|---|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC [1] | 52.**760**.421 | **1,475.–** | 52.**760**.621 | **1,795.–** | 52.**760**.821 | **2,345.–** |
| Slave clock, minute pulse 12…60 V | 71.**760**.421 | **1,025.–** | 71.**760**.621 | **1,345.–** | 71.**760**.821 | **1,895.–** |
| Slave clock, min. pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.**760**.421 | **1,650.–** | 74.**760**.621 | **1,970.–** | 74.**760**.821 | **2,520.–** |
| Slave clock, *DCFport24* pulse telegram 24 V [2] | 81.**760**.421 | **1,375.–** | 81.**760**.621 | **1,695.–** | 81.**760**.821 [2] | **2,245.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**760**.421 | **1,605.–** | 85.**760**.621 | **1,925.–** | 85.**760**.821 | **2,475.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE [3] | 91.**760**.421 | **1,775.–** | 91.**760**.621 | **2,095.–** | 91.**760**.821 | **2,645.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **on request** |
| Wall or ceiling mounting bracket for single face outdoor clocks, standard length 70 mm | **-34** | **on request** |
| Light-sensitive switch for internal illumination | **-44** | **195.–** |
| Custom logo on clock face | **-47** | **on request** |
| Face with Arabic numerals instead of DIN bar markings | **-48** | **on request** |
| Unbreakable Makrolon® front glass instead of Plexiglas® (for 842 x 842 mm clocks only) | **-55** | **395.–** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] *DCFport24* pulse telegram slave clocks with 800 x 800 mm face dimensions require a 230 VAC power supply.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# Outdoor Clocks (also suitable for large halls)
double face, square, **backlighted by LED**

**Outdoor**
analog
double face

Type series
**762**

74.**762**.622 shown

Extraordinarily sturdy **high quality industrial grade** outdoor clocks, also suitable for indoors. Solid workmanship, **backlighted by LED**, weather protected case (IP 54/EN 60 529).

71.**762**.622 **–48**

Clocks of this type series with Arabic numerals bear the Item Number suffix **–48**.

### Case
- cir. 442 x 442 mm
- cir. 642 x 642 mm
- cir. 842 x 842 mm

weatherproof aluminium case. Outside 2-layer tempered enamel, light grey (RAL 7035). Optionally custom enamelled, at a surcharge. Extraordinarily solid construction, incl. light fitting. Absolutely corrosion resistant and weatherproof. Protection grade IP 54 (EN 60 529).

### Mounting
Choice of wall or ceiling mounting, standard length cir. 70 mm.

### Front glasses
Shock-resistant, highly transparent 4 mm Plexiglas® XT. For locations prone to impact or public areas, unbreakable Makrolon® (polycarbonate) front glasses are available as an option.

### Faces (backlighted)
Acrylic plastic, white, translucent, 5 mm thick, large black DIN bar markings (or black Arabic numerals as an option). Very distinctive and easy doubt-free reading even over longer distances. Faces printed according to DIN 41 049.

### Illumination
Backlighting by durable, maintenance-free light-emitting diodes (LEDs), operating voltage 230 VAC/50...60 Hz. As an option, a light-sensitive switch can be included.

### Hands
Pointed black DIN bar-type hands (DIN 41 092) for hour and minute. Distinctive red "Railway Station clock" type second hands with "eye" on slave clock with synchronous second hands (**74**.xxx) only.

No second hands on other clock types.

## Outdoor
analog
double face

Type series
**762**

| Clock type | Face dimensions ▶ Mounting ▼ | 400 x 400 mm Item No. | € each | 600 x 600 mm Item No. | € each | 800 x 800 mm Item No. | € each |
|---|---|---|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC[1] | wall | 52.**762**.422 | **1,895.–** | 52.**762**.622 | **2,140.–** | 52.**762**.822 | **3,095.–** |
| | ceiling | 52.**762**.423 | **1,895.–** | 52.**762**.623 | **2,140.–** | 52.**762**.823 | **3,095.–** |
| Slave clock, minute pulse 12...60 V | wall | 71.**762**.422 | **1,445.–** | 71.**762**.622 | **1,690.–** | 71.**762**.822 | **2,645.–** |
| | ceiling | 71.**762**.423 | **1,445.–** | 71.**762**.623 | **1,690.–** | 71.**762**.823 | **2,645.–** |
| Slave clock, minute pulse 12/24 V, synchronous second hand 230 VAC/50 Hz | wall | 74.**762**.422 | **2,435.–** | 74.**762**.622 | **2,680.–** | 74.**762**.822 | **3,635.–** |
| | ceiling | 74.**762**.423 | **2,435.–** | 74.**762**.623 | **2,680.–** | 74.**762**.823 | **3,635.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | wall | 81.**762**.422 | **1,795.–** | 81.**762**.622 | **2,040.–** | 81.**762**.822[2] | **2,995.–** |
| | ceiling | 81.**762**.423 | **1,795.–** | 81.**762**.623 | **2,040.–** | 81.**762**.823[2] | **2,995.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains operated 230 VAC | wall | 85.**762**.422 | **2,025.–** | 85.**762**.622 | **2,270.–** | 85.**762**.822 | **3,225.–** |
| | ceiling | 85.**762**.423 | **2,025.–** | 85.**762**.623 | **2,270.–** | 85.**762**.823 | **3,225.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3] | wall | 91.**762**.422 | **2,195.–** | 91.**762**.622 | **2,440.–** | 91.**762**.822 | **3,395.–** |
| | ceiling | 91.**762**.423 | **2,195.–** | 91.**762**.623 | **2,440.–** | 91.**762**.823 | **3,395.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **on request** |
| Light-sensitive switch for internal illumination | **-44** | **195.–** |
| Custom logo on clock face | **-47** | **on request** |
| Face with Arabic numerals instead of DIN bar markings | **-48** | **on request** |
| Unbreakable Makrolon® front glasses instead of Plexiglas® (for 842 x 842 mm clocks only) | **-56** | **790.–** |

### Options – just as *you* like them ...
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] *DCFport24* pulse telegram slave clocks with 800 x 800 mm face dimensions require a 230 VAC power supply.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

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# **Training Clocks/Pace Clocks,** for in- and outdoors, with seconds cross, **backlighted by LED**

**Indoor/ Outdoor**
analog
single face

Type series
**765**

42.**765**.611 shown

This kind of training/pace clocks indicates split times during swim training/warm-up training. Times are taken by each swimmer individually. The 4-coloured seconds cross indicates the time elapsed, one complete turn corresponds to exactly 60 seconds.

For parallel operation of several training clocks, the slave clock type connected to the central control unit 10.**430**.100 is recommended. Thus an identical display (synchronous time) is always guaranteed on all training clocks connected.

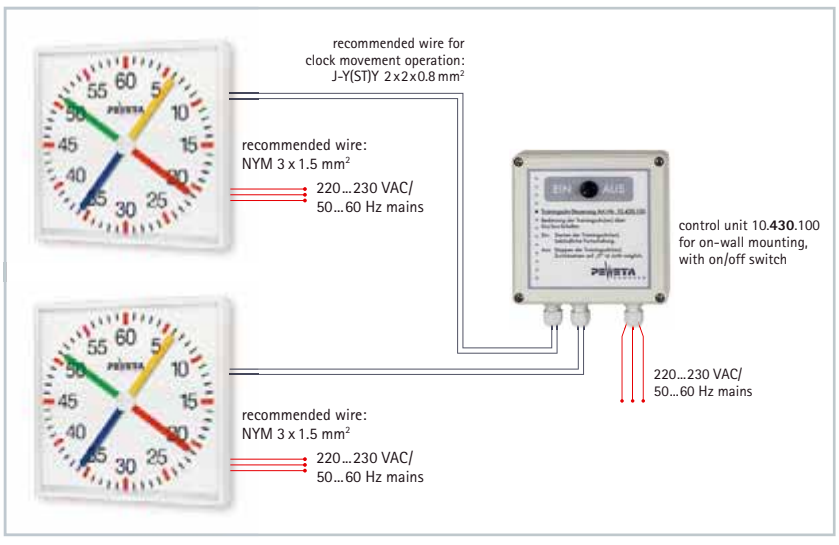


Diagram shows
2 training clocks 71.**765**.611
with control unit 10.**430**.100

### Case
- cir. 642 x 642 mm

weatherproof aluminium case. Outside 2-layer tempered enamel, light grey (RAL 7035). Optionally custom enamelled, at a surcharge. Extraordinarily solid construction, incl. light fitting. Absolutely corrosion resistant and weatherproof. Protection grade IP 54 (EN 60 529).

### Mounting
On-wall mounting as standard. Wall or ceiling mounting bracket available at a surcharge (option).

### Clock types
- Quartz movement, mains operated 230 VAC
- Slave movement, pulse operated 24 V

To be operated by control unit 10.**430**.100 only.
**Recommended for synchronized, parallel operation of up to 4 training clocks/pace clocks** 71.**765**.611 **in securely fixed position**.

### Face (backlighted)
Acrylic plastic, white, translucent, 5 mm thick, with red/black second bars and black numerals. Very distinctive and easy doubt-free reading even over longer distances.

### Illumination
Backlighting by durable, maintenance-free light-emitting diodes (LEDs), operating voltage 230 VAC/50…60 Hz. As an option, a light-sensitive switch can be included.

### Hands
Acrylic plastic 4-coloured cross, translucent, intervals in second cycles.

### Front glass
Shock-resistant, highly transparent 4 mm Plexiglas® XT.

**Indoor/ Outdoor**
analog
single face

Type series
**765**

| Technical data | |
|---|---|
| Operating power (quartz clock type, mains operated) | 220…230 VAC |
| Operating power (slave clock type, pulse operated) | 24 V second pulses |
| Operating power (illumination) | 230 VAC/50–60 Hz |
| Intervals | second cycles |
| Dial sections | 0…60 |
| Reading distance | min. 30 m |

| Clock type | Item No. | € each |
|---|---|---|
| Quartz clock, mains operated 230 VAC | 42.**765**.611 | **1,890.–** |
| Slave clock, minute pulse 24 V (second cycles) | 71.**765**.611 | **1,690.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Control unit for up to 4 training clocks 71.**765**.611, operating power 220…230 VAC/50…60 Hz, ON/OFF switch | 10.**430**.100 | **295.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **on request** |
| Wall or ceiling mounting bracket for single face outdoor clocks, standard length 70 mm | **-34** | **on request** |
| Light-sensitive switch for internal illumination | **-44** | **195.–** |
| Custom logo on clock face | **-47** | **on request** |

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

### Function
The (swim) training/pace clock can be used by any number of swimmers simultaneously.

The crossed second hands show the time elapsed in seconds.

The swimmer will wait for a maximum of 14 seconds until the next colour of the four second hands ("his" colour) reaches the 12-o'clock-position and will then memorise the colour of "his" hand.

Upon reaching the edge of the pool (after 1 or 2 laps) the time elapsed can be read according to the position of "his" second hand.

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# Outdoor Clocks (also suitable for large halls)
four faces, backlighted

**Outdoor**
analog
four faces

Type series
**790**

71.**790**.626 shown
with pole adapter 01.**790**.001

Extraordinarily sturdy **high quality industrial grade** outdoor clocks. Also suitable for indoors, e. g. for large halls.
Solid workmanship, backlighted, weather protected case (IP54/EN 60 529).

We provide a ready-to-install product which can be mounted and connected without problem. The clock contains finished electrical wiring as well as mechanical fixing points for mounting. On request, we will be happy to support you with additional mounting instructions and other information.

Different face and hand variations are possible (option).

**Clock cubes for indoor use**
see pages 96...99.

### Case
- cir. 780 x 780 x 780 mm
  weight cir. 80 kg
- cir. 980 x 980 x 980 mm
  weight cir. 100 kg

Weatherproof metal case, four faces, including light fitting. Frame of extruded hollow aluminium mouldings, neatly mitred at all corners. Clock faces are attached to frame with hidden stainless steel hinges and inspection latches for maintenance access. Interior of case permanently ventilated to avoid condensation. Outside surface anodised in silver (E6/EV1) as standard, or, at a surcharge, custom enamelled (option).

### Mounting
As standard, no mounting fixtures are included in delivery shipment.
Optional mounting accessories:
- A reinforced floor plate for mounting on solid ground
- A pole adapter (length cir. 300 mm, fits on an existing pole).

The clock case is designed for wind loads of up to cir. 0.5 KN/m² (standard value). Actual wind loads depend on the individual location and have to be accounted for locally. This considered, a sufficiently firm footing is to be made sure.

### Front glasses
Single-pane safety glass (according to German safety standard ESG), embedded in permanently elastic, weatherproof special gaskets.

### Faces (backlighted)
Acrylic plastic, translucent, white, 5 mm, large DIN black bar markings. Very distinctive and easy doubt-free reading even over longer distances. Other face and hand variations are available on request (options). Faces printed according to DIN 41 049.

### Illumination
Fluorescent tubes for 230 VAC/50…60 Hz are installed and wired as standard.
As an option, LED tubes can be included instead of fluorescent tubes.

### Hands
Pointed black DIN bar-type hands (DIN 41 902) for hour and minute. Distinctive red "Railway Station clock" type second hands with "eye" on slave clock with synchronous second hands (**74**.xxx) only.

**Outdoor**
analog
four faces

Type series
**790**

| Face dimensions ▶ / Clock type | 600 x 600 mm Item No. | €/Stück | 800 x 800 mm Item No. | € each |
|---|---|---|---|---|
| DCF77 radio controlled clock, mains operated 230 VAC[1] | 52.**790**.626 | **5,390.–** | 52.**790**.826 | **6,890.–** |
| Slave clock, minute pulse 12…60 V | 71.**790**.626 | **4,890.–** | 71.**790**.826 | **6,390.–** |
| Slave clock, min. pulse 12/24 V, synch. second hand 230 VAC/50 Hz | 74.**790**.626 | **6,650.–** | 74.**790**.826 | **8,150.–** |
| Slave clock, *DCFport24* pulse telegram 24 V[2] | 83.**790**.626 | **5,290.–** | 83.**790**.826 | **6,790.–** |
| Slave clock, *AirPort24* radio controlled telegram, mains op. 230 VAC | 85.**790**.626 | **5,525.–** | 85.**790**.826 | **7,025.–** |
| Slave clock, NTP synchronisation by LAN (NTP client), PoE[3] | 91.**790**.626 | **5,640.–** | 91.**790**.826 | **7,140.–** |

| Accessories | Item No. | € each |
|---|---|---|
| Pole adapter, length 300 mm, for mounting on top of an existing pole (please coordinate measurements) | 01.**790**.001 | **690.–** |
| Reinforced floor plate, necessary for on-site mounting | 01.**790**.003 | **195.–** |
| Shipment packing (sturdy wood crate/planking) | 01.**790**.004 | **on request** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |
| Case with lugs for suspension by ropes or chains (indoor mounting only) | **-30** | **395.–** |
| Faces with nostalgic hands and Roman numerals (instead of bar markings with bar-type hands) | **-24** | **on request** |
| Backlighting by LED tubes (instead of fluorescent tubes) | **-43** | **549.–** |
| Light-sensitive switch for internal illumination | **-44** | **349.–** |
| Custom logo on clock face | **-47** | **on request** |

**Clocks of this type series are also available with Arabic numerals.**
To order, replace the 7th digit "2" of the Item No. by "1", Example: 71.790.616. Faces with Arabic numerals.

### Options – just as *you* like them …
These clocks are available optionally with customised features at the surcharges as listed. Just pick your option(s) and add the appropriate suffix(es) to the Item No.

### Security advice:
Fulfilment of local building standards and other pertinent safety regulations as well as preparation of the mounting surface or load bearing calculations for the foundation and wind loads on the supporting structure are always the responsibility of the customer and/or his architect/building contractor.

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**PEWETA *AirPort24***
*PEWETA AirPort24 slave clocks require an AirPort24 transmitter or repeater respectively (see page 189).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

[1] A remotable DCF77 receiving aerial is included in delivery shipment.
[2] *DCFport24* pulse telegram slave clocks require a 230 VAC power supply.
[3] NTP slave clocks of "PoE" type require a PoE (Power over Ethernet) power supply. Appropriate hardware has to be supplied by customer.

**Clock cubes for indoor use**
see pages 96…99.

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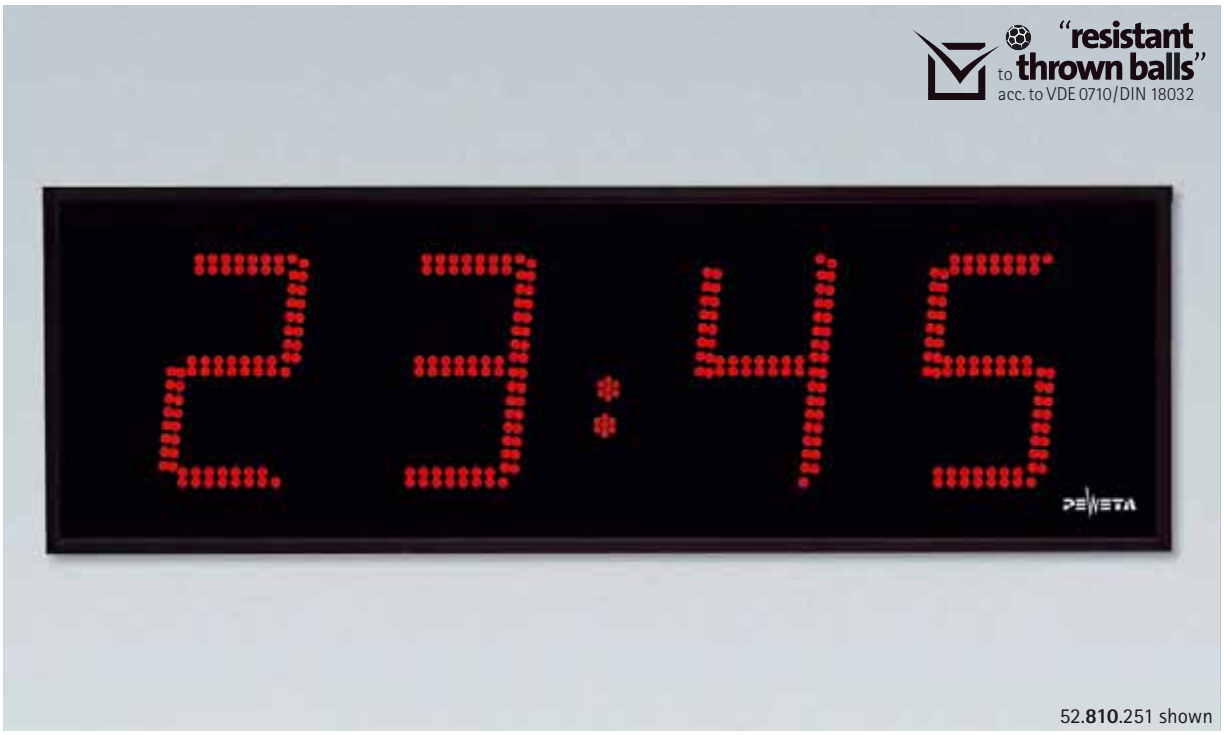
# LED Digital Displays, outdoor
## showing the time, alternating with date and temperature

**Digital displays**
single-sided
outdoor

Type series
**810**




52.**810**.251 shown

Large, very sturdy digital displays with distinct, double-row LEDs, optimum readability, even at longer distances.

For sports applications, these LED digital displays can also be used as stopwatches. Besides basic count-up and count-down functions a complete training program with various cycles and breaks that starts automatically when triggered can be programmed using the infrared remote control, included in delivery shipment.

Examples show time, date, temperature, and stopwatch modes

**LED digital displays for indoors**
see pages
152 and 153.

### Case
- cir. 830 x 320 x 90 mm (cipher height 160 mm)
- cir. 1230 x 400 x 90 mm (cipher height 250 mm)

very sturdy aluminium case, enamelled black.
Protection grade IP 54 (EN 60 529).

### Resistance to thrown balls
LED digital displays of this type series are resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3 and thus are suitable for school yards and sporting facilities.

### Mounting
On-wall mounting by means of 4 angular metal brackets (included in delivery shipment).

### Front glass
Flat shock-resistant plastic glass.

### LED digital display
7-segment display technology, colour red, automatic brightness control. 4-digit display with double-row LEDs showing hours and minutes, date, and temperature, either permanently or alternating, intervals adjustable.
Operating voltage 230 V AC/50..60 Hz.

### Infrared remote control unit
All settings and the operation of the stopwatch mode are triggered by a wireless infrared remote control unit, included in delivery shipment.

### Stopwatch mode
This LED digital display can also be used as a stopwatch in count-up, count-down, and training modes. The 4-digit LED display shows minute and second readings. Operation by the wireless infrared remote control unit included.
Functions possible:
- **count-up** with split times
- **count-down** with indication of initial value
- **training** with adjustable number and duration of cycles and breaks.

**Further models**
of this type series with different cipher heights and/or with a 6-digit display (hh:mm:ss) are available on request .

| Technical data | | Cipher height 160 mm | Cipher height 250 mm |
|---|---|---|---|
| **Case** | colour | black (RAL 9005) | black (RAL 9005) |
| | dimensions (W x H x D) | cir. 830 x 320 x 90 mm | cir. 1230 x 400 x 90 mm |
| | weight | cir. 10 kg | cir. 15 kg |
| **LED display** | cipher height hours/minutes | cir. 160 mm | cir. 250 mm |
| | cipher colour | red | red |
| | reading distance | cir. 60..70 m | cir. 90..100 m |

| Type | Cipher height ▶ Operating voltage ▼ | 160 mm Item No. | € each | 250 mm Item No. | € each |
|---|---|---|---|---|---|
| Quartz clock | 230 V AC | 42.**810**.161 | **2,295.–** | 42.**810**.251 | **2,995.–** |
| DCF77 radio controlled clock[1)] | 230 V AC | 52.**810**.161 | **2,595.–** | 52.**810**.251 | **3,295.–** |
| Slave clock, *DCFport24* pulse telegram 24 V | 230 V AC | 83.**810**.161 | **2,395.–** | 83.**810**.251 | **3,095.–** |
| Slave clock, NTP synchronisation by LAN (NTP client)[2)] | 230 V AC | 93.**810**.161 | **on request** | 93.**810**.251 | **on request** |

| Option | Suffix | Surcharge € each |
|---|---|---|
| Case custom enamelled | **-10** | **on request** |

[1)] A remotable DCF77 receiving aerial is included in delivery shipment.
[2)] NTP slave clocks require a LAN connection. Appropriate hardware has to be supplied by customer.

## Digital displays
single-sided
outdoor

Type series
**810**

**DCF77 radio controlled clocks**
*DCF77 radio controlled clocks of this type series will be supplied including a remotable DCF77 aerial (IP 68). Thus, optimum reception quality can be achieved regardless of the final placement of the clock itself. However, DCF77 radio controlled clocks will only function correctly within a radius of approx. 1,500 km around Mainflingen (50 km east of Frankfurt/M.).*

**PEWETA *DCFport24***
*PEWETA DCFport24 slave clocks require a PEWETA master clock (see from page 184 on).*

**NTP**
*NTP slave clocks require an NTP time server (see page 191).*

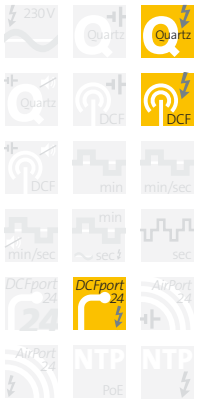
**LED digital displays for indoors**
see pages 152 and 153.

*All prices on this page include shipping cost inside Germany (islands excluded), VAT added for deliveries inside Germany. Prices shown as of January 1st, 2017, subject to change without notice. If you desire additional information, please order the detailed Type information sheet, quoting the Item No. Alternatively, access our product data file on the internet at www.peweta.com.*

# LED Soccer Score Display Board, outdoor
## showing game time and time respectively

**Digital displays**
single-sided
outdoor

Type series
**830**



24.**830**.422 shown

7-segment LED technology score display board, cipher height 460 mm, reading distance up to cir. 180 m.
Suitable for soccer, rugby, and lawn hockey.

### Case
■ cir. 2500 x 1800 x 90 mm consisting of 2 modules. Very sturdy aluminium cases, enamelled black. Protection grade IP 54 (EN 60 529).

### Resistance to thrown balls
The soccer score display board of this type series is resistant to thrown balls in accordance with German standards VDE 0710, part 13:1981-05 and DIN 18032, part 3 and thus are suitable for outdoor sporting facilities.

### Mounting
On-wall mounting by means of 4 angular metal brackets (included in delivery shipment).
Rear-side mounting bracket for attachment to an I-beam or pole pipe available on request.

### Front glass
Flat shock-resistant plastic glass.

### HOME/GUEST marking
Permanent marking by self-adhesive film, available in various languages.

### Score display
One 2-digit display per team, 7-segment triple-row LED technology, cipher colour red, cipher height 460 mm. Manual brightness control in 9 steps triggered by the control panel.

### Game time display
4-digit display with 7-segment triple-row LED technology, cipher colour red, cipher height 460 mm, showing game time in minutes and seconds during a game.
Real time display showing hours and minutes when no game is going on possible. Quartz technology (DCF77 receiving aerial or time display interface to import the *DCFport24* pulse telegram from a PEWETA master clock available as accessories).

### Scope of delivery
- **1 control panel**, multi-lingual, transfer by radio, frequency 868 .. 869 MHz (standard), or wire-based (option), with LCD display and keyboard. Programs for soccer, rugby, and lawn hockey stored
- **1 wall plug adapter** for charging the rechargeable batteries of the control panel
- **1 transport case** (cir. 355 x 255 x 86 mm) to safely store control panel and plug adapter.

**Further models**
of this type series with 250 mm LED cipher height for small sports facilities or with LED text display for team names or messages in moving-script-method available on request.

| Technical data | |
|---|---|
| **Data transmission** | wireless 868..869 MHz |
| **Case dimensions (WHD)** | cir. 2500 x 1800 x 90 mm |
| **Front cover** | polycarbonate treated for low reflectivity |
| **Cipher height** | 460 mm |
| **Reading distance** | cir. 180 m, view angle cir. 160° |
| **Weight** | cir. 85 kg |
| **Operating voltage** | mains 220..230 V AC/50..60 Hz |

| Type | Score display | Item No. | € each |
|---|---|---|---|
| Display board with (game) time display | 2 digits per team | 24.**830**.422 | **7,590.–** |

| Accessories | Item No. | € each |
|---|---|---|
| DCF77 receiving aerial (IP65) for precise local time and fully automatic change-over of summer/winter time | 03.**925**.185 | **290.–** |
| Time display interface to import the *DCFport24* pulse telegram from a PEWETA type series 920 master clock | 04.**676**.000 | **95.–** |

**Safety advice:**
Fulfilment of local building standards and other pertinent safety regulations as well as preparation of the mounting surface or load bearing calculations for the foundation and wind loads on the supporting structure are always the responsibility of the customer and/or his architect/building contractor.

**Digital displays**
single-sided
outdoor

Type series
**830**

*All prices on this page include shipping cost inside Germany (islands excluded), VAT added for deliveries inside Germany. Prices shown as of January 1st, 2020, subject to change without notice. If you desire additional information, please order the detailed Type information sheet, quoting the Item No. Alternatively, access our product data file on the internet at www.peweta.com.*

Control units

# Control Units

- Master Clocks/Signalling Master Clocks
- DCF77/GPS Receiving Aerials
- Booster for Master Clocks
- *AirPort24* Transmitter and Repeater
- NTP Time Server
- 19" Modular Master Clock System

Clock systems, as compared to stand-alone clocks, have one main advantage: all connected slave clocks display *identical* time. The "source of time" for this time display service always is the Master Clock.

### Master Clock/ Signalling Master Clock

Using an internal quartz time base, the maximum error is cir. ±0.5 sec. per day. If a radio receiver (DCF77 or GPS) is connected, the Master Clock will evaluate the time-and-date signals received, check for and correct any possible discrepancies and then transmit the updated time information as pulses (minute-, half minute- or second-pulses) or as a telegram (e.g. PEWETA *DCFport24* pulse telegram by wire, *AirPort24* wireless pulse telegram) to all connected slave clocks. Summer/winter time changeover is performed automatically. If the Master Clock is required, in addition to transmitting the time-and-date information, to effect switching operations, such as activation of optical and/or acoustic signalling devices to indicate start of work or break periods, in industry or at schools, master clocks can be equipped with additional signal (switching) outputs. These output terminals are free-floating and capable of controlling also other external equipment, such as lighting, air conditioning, ventilation, heating or security alarm systems as well as many others.

### Conventional pulse

Conventional slave clocks are advanced by alternating polarity pulses (minute-pulse or second-pulse) one time unit at a time. 4-core wire is recommended for the slave clock control line(s), recommended type is J-Y(ST)Y 2x2x0,8 mm², but existing 2-wire lines may continue in use.

### *DCFport24* pulse telegram

PEWETA slave clocks with *DCFport24* input are controlled by a wire-transmitted DCF77 pulse (time and date) telegram. Their advantages over conventional slave clocks are:

- extremely easy "plug-and-play" installation
- no need to watch for control line polarity
- quick initiation by automatic, extremely rapid self-adjustment to current time, regardless of position of hands on analog clocks at delivery
- Central second hand(s) available as standard for clock faces up to 400 mm diameter.
- When changing over from conventional pulse control to the PEWETA *DCFport24* pulse telegram, existing 2-wire lines or networks may continue in use. For new installations, use of 4-core wire type J-Y(ST)Y 2x2x0,8 mm² is recommended.
- There is a possibility to use existing conventional slave clocks simultaneously with new PEWETA *DCFport24* pulse telegram slave clocks. To make use of this possibility, a PEWETA Master Clock series 920 with 2 slave clock lines is required as a minimum. Type of pulse and/or telegram may be assigned to each slave clock line individually.

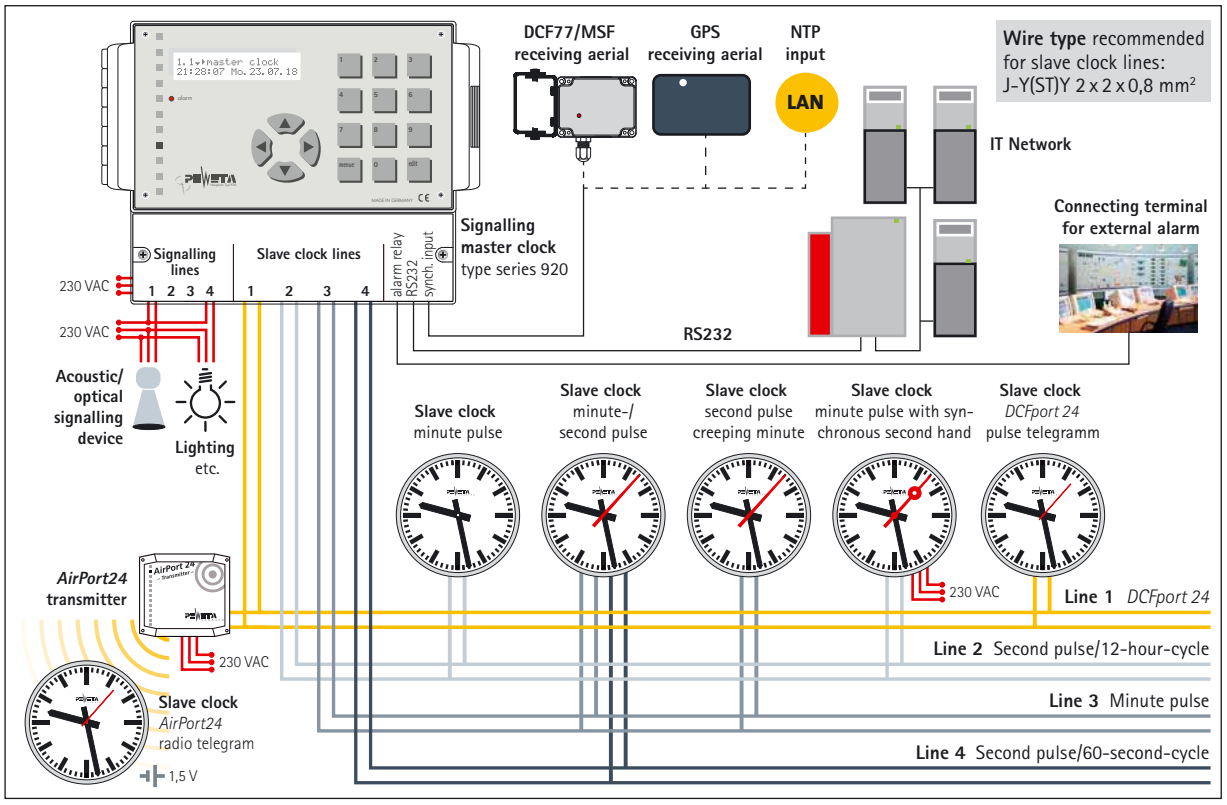
### *AirPort24* radio telegram (RF)

The PEWETA *AirPort24* system enables a

- wireless transmission of time and date information to all *AirPort24* slave clocks (868..869 MHz frequency band).

For more information see pages 7 and 189 or give us a call.

# Wiring Diagram
## for PEWETA type series 920 Master Clock



**Wiring diagram** for type series 920 Master Clock

## Slave clocks may be operated by a PEWETA type series 920 Master Clock under the following pulse formats:

**Minute Pulse, 12 ... 60 V**
The polarity alternating pulse is distributed by a two-wire line. In analog clocks, the minute pulse also is the power supply. Before initiation, all slave clocks must be manually pre-set to indicate the starting time. All clocks must be connected in the same polarity.

**Minute and Second Pulse, 12/24 V**
To control slave clocks with minute/second pulse movements, a Master Clock with a minimum of 2 slave clock lines is required. In addition to the minute pulse (see above), a polarity alternating second pulse is transmitted on a separate (!) 2-wire line. In analog clocks, the minute and second pulse also is the power supply. Before initiation, all slave clocks must be manually pre-set to indicate the starting time. All clocks must be connected in the same polarity.

**Minute Pulse 12/24 V, Synchronous Second, 230 V AC/50...60 Hz**
Same function as minute pulse 12...60 V, however, the creeping second hand is powered by 230 V AC/50...60 Hz mains and is synchronised to the polarity alternating minute pulse at every full minute.

**Second Pulse 12/24 V with Creeping Minute**
To control slave clocks with a second pulse only movement a second pulse with a 12-hour cycle is required. The polarity alternating second pulse is transmitted by a 2-wire line, the creeping minute hand is "pulled along". In analog clocks, the second pulse also is the power supply. Before initiation, all slave clocks must be manually pre-set to indicate the starting time. All clocks must be connected in the same polarity.

***DCFport24* Pulse Telegram**
An interference-protected DCF77 pulse telegram (12/24 V) is transmitted by a 2-wire line. All clocks connected to the system will automatically adjust to current time (plug-and-play), independent of polarity and position of hands in analog clocks. No manual pre-setting of time is required. For analog clocks and LCD digital clocks, this also provides the operating power. Analog clocks with faces up to 400 mm diameter always come equipped with a second hand.
The *DCFport24* is also capable of providing power for a limited number of LED digital clocks, otherwise, 230 V AC/50...60 Hz (for other voltages, please call us) mains power is required.
**For further information about the *DCFport24* pulse telegram see page 6.**

***AirPort24* Radio Telegram**
To control slave clocks by *AirPort24* radio telegram, at least 1 *AirPort24* transmitter, and if conditions dictate, 1 *AirPort24* repeater are required. A wire network, as in conventional slave clock systems, is not required, complete time and date information is distributed interference-proof by RF transmission (in the 868 ... 869 MHz UHF band) throughout a radius of cir. 250 m to all slave clocks located in this reception area. All clocks self-adjust immediately and fully automatically (plug-and-play) to current time. Analog clocks may operate either on 1.5 V battery power or 230 V AC/50...60 Hz mains, LED digital clocks always need 230 V AC/50...60 Hz (other voltages/cycles on request) mains power. Analog clocks with faces up to 400 mm diameter always come equipped with a second hand.
**For further information about the *AirPort24* radio telegram see page 7.**

Different clock drive modes may be used in parallel if the controlling PEWETA Master Clock is equipped with a sufficient number (2 minimum) of slave clock lines.

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Master Clock/Signalling Master Clock

## DCF77, GPS or NTP/LAN controlled (customer's choice)

**Master Clocks/ Signalling Master Clocks and extras**

Type series **920**

Type series **925**

10.**920**.122 shown

### Typical performance data

#### Control of slave clocks

- **1, 2 or 4 slave clock lines**
- **Pulse Mode** 12/24 V, may be selected for each line as
  - alternating polarity minute pulse
  - alternating polarity half-minute pulse
  - alternating polarity second pulse
  - *DCFport24* pulse telegram
  - *AirPort24* radio telegram (in combination with an *AirPort24* transmitter)
- **Pulse duration** is adjustable from .2 sec to 9.9 sec.
- **Total output power** is 1 A at 24 V (2 A at 12 V) line voltage to control up to
  - 160 conventional slave clocks (at 6 mA/24 V each) or up to
  - 40 PEWETA *DCFport24* pulse telegram slave clocks (12 V). With a pulse amplifier (Item Number 10.**930**.124), the system may be expanded by up to 125 PEWETA *DCFport24* pulse telegram slave clocks
  - an unlimited number of *AirPort24* radio telegram slave clocks (in combination with a PEWETA *AirPort24* transmitter (Item Number 10.**940**.100) and a PEWETA *AirPort24* repeater (Item Number 10.**941**.100) respectively
- **Simultaneous operation** of conventional slave clocks and *DCFport24* pulse telegram slave clocks is possible (2 slave clock lines minimum)
- Optional **power outage reserve**, selectable for individual slave clock lines. A rechargeable NiCd battery, 24 V/.6 Ah for 24 V lines or 12 V/1.2 Ah for 12 V lines, provides for continued operation of all connected clocks in case of a mains power outage
- Electronic **memory** and automatic update function will, upon return of mains power (e. g. after a mains outage) immediately readjust all connected clocks to current time
- **Slave clock lines with voltage and current surveillance**. Mains power outage, overload (or low voltage when operating in memory mode) in the clock control line will cause an alarm by red LED and alarm flag in the display. A free-floating switch contact is available to trigger an external alarm device.
- **Slave clocks will automatically be stopped when low voltage is detected**
- **Secondary Master Clocks** for expanding the clock system may be synchronised by the *DCFport24* output
- For the **control of world time displays** 26 pre-programmed zone times and one freely configurable zone time may be, at customer's choice, assigned as system (local) time or to any slave clock line
- 1 **RS232 serial interface** (output) is available for continuous transmission of time-and-date information in ASCII format.

#### Signalling device

- 0, 2 or 4 programmable signal contacts (switch points/free-floating contacts) capable of 250 VAC/2 A
- Choice of program run for a day, a week or a year
- Up to 600 switch actions programmable
- ON/OFF switching or pulse action
- Fastest possible switching sequence: 1 second
- Reprogrammable every day, week or year, block-building is possible
- Fixed-program calendar through 2099
- Data retention on power outage > 5 years.

#### Additional performance data

- Input terminal for radio control by DCF77, GPS, MSF or similar is available as an option
- NTP input terminal (RJ45) for synchronisation by LAN (option)
- Alphanumeric LCD display for user-friendly dialog-type navigation, time-and-date readout and alarm indications
- Multilingual navigation, 7 languages selectable: English, French, Spanish, Portuguese, German, Italian and Dutch
- Keyboard locked, accessible by PIN-code only.

| Technical data | | |
|---|---|---|
| **Case** | width x height x depth | cir. 240 x 184 x 115 mm |
| | material | Lexan 500R/940 A |
| | colour | RAL 7035 (light grey) |
| | weight | cir. 2.5 kg (incl. power outage batteries) |
| **Milieu** | VDE classification | I |
| | protection grade (EN 60 529) | IP 32 |
| | surrounding temperature | 0 °C up to 40 °C |
| **Electrical values** | mains voltage | 220..230 V AC/50 ... 60 Hz |
| | power consumption | 10 ... 53 VA |
| | line voltage/pulse mode | 12 V or 24 V |
| **Total power output** | 12 V minute pulse | 2000 mA max. (for up to 160 slave clocks at 12 mA) |
| | 24 V minute pulse | 1000 mA max. (for up to 160 slave clocks at 6 mA) |
| | 12 V half-minute pulse | 2000 mA max. (for up to 160 slave clocks at 12 mA) |
| | 24 V half-minute pulse | 1000 mA max. (for up to 160 slave clocks at 6 mA) |
| | 12 V second pulse | 400 mA max. (for up to 30 slave clocks at 12 mA) |
| | 24 V second pulse | 200 mA max. (for up to 30 slave clocks at 6 mA) |
| | *DCFport24* pulse telegr. 12 V | 500 mA max. (for up to 40 slave clocks at 10 mA) |
| | *DCFport24* pulse telegr. 24 V | 250 mA max. (for up to 20 slave clocks at 10 mA) |

## Master Clocks/ Signalling Master Clocks and extras

Type series **920**

Type series **925**

| Type | Number of slave clock lines | Number of signalling contacts | Power outage reserve 0,6 Ah/24V | Item No. | € each |
|---|---|---|---|---|---|
| Master Clock | 1 | none | none | 10.**920**.010 | **615.–** |
| | 1 | none | yes | 10.**920**.110 | **765.–** |
| Signalling Master Clock | 1 | 2 | none | 10.**920**.012 | **780.–** |
| | 1 | 2 | yes | 10.**920**.112 | **930.–** |
| Master Clock | 2 | none | none | 10.**920**.020 | **705.–** |
| | 2 | none | yes | 10.**920**.120 | **855.–** |
| Signalling Master Clock | 2 | 2 | none | 10.**920**.022 | **870.–** |
| | 2 | 2 | yes | 10.**920**.122 | **1,020.–** |
| | 2 | 4 | none | 10.**920**.024 | **1,060.–** |
| | 2 | 4 | yes | 10.**920**.124 | **1,210.–** |
| Master Clock | 4 | none | none | 10.**920**.040 | **890.–** |
| | 4 | none | yes | 10.**920**.140 | **1,040.–** |
| Signalling Master Clock | 4 | 4 | none | 10.**920**.044 | **1,240.–** |
| | 4 | 4 | yes | 10.**920**.144 | **1,390.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |
| NTP input for system time synchronisation via LAN | **-98** | **298.–** |

# DCF77 Receiving Aerial for all type series 920 Master Clocks

03.**925**.111 shown

The DCF77 time signal telegram, as transmitted by the German time signal transmitter at Mainflingen near Frankfurt/Main, is a superior time standard for synchronization and automatic change from summer to winter time of radio controlled stand-alone clocks and master/slave clock systems. This PEWETA DCF77 aerial provides time-and-date information to all PEWETA Master Clocks and Signalling Master Clocks.

- Weatherproof plastic case (IP 68), for indoor/outdoor mounting, dimensions (W x H x D) cir. 100 x 65 x 37 mm
- Stainless steel mounting bracket
- 5 m connecting wire (LIYCY 4 x 0,25 mm²) included in delivery shipment, may be extended to a maximum length of 100 m.

| Type | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 68), for PEWETA Master Clocks | 03.**925**.111 | **149.–** |

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# 19" Master Clock/Signalling Master Clock

## DCF77, GPS or NTP/LAN controlled (customer's choice)

**Master Clocks/ Signalling Master Clocks and extras**

Type series **920**

Type series **925**

11.**920**.122 shown

### Typical performance data

#### Control of slave clocks

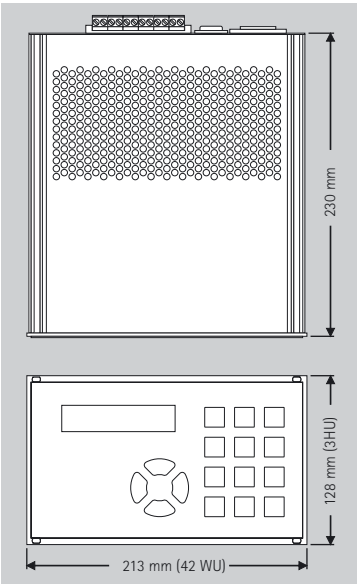
- **2 or 4 slave clock lines**
- **Pulse Mode** 12 or 24 V, may be selected for each line as
  - alternating polarity minute pulse
  - alternating polarity half-minute pulse
  - alternating polarity second pulse
  - *DCFport24* pulse telegram
  - *AirPort24* radio telegram (in combination with an *AirPort24* transmitter)
- **Pulse duration** is adjustable from .2 sec to 9.9 sec.
- **Total output power** is 1 A at 24 V (2 A at 12 V) line voltage to control up to
  - 160 conventional slave clocks (at 6 mA/24 V each) or up to
  - 40 PEWETA *DCFport24* pulse telegram slave clocks (12 V). With a pulse amplifier (Item Number 10.**930**.124), the system may be expanded by up to 125 PEWETA *DCFport24* pulse telegram slave clocks
  - an unlimited number of *AirPort24* radio telegram slave clocks (in combination with a PEWETA *AirPort24* transmitter (Item Number 10.**940**.100) and a PEWETA *AirPort24* repeater (Item Number 10.**941**.100) respectively
- **Simultaneous operation** of conventional slave clocks and *DCFport24* pulse telegram slave clocks is possible (2 slave clock lines minimum)
- Optional **power outage reserve**, selectable for individual slave clock lines. A rechargeable NiCd battery, 24 V/.6 Ah for 24 V lines or 12 V/1.2 Ah for 12 V lines, provides for continued operation of all connected clocks in case of a mains power outage
- Electronic **memory** and automatic update function will, upon return of mains power (e. g. after a mains outage) immediately readjust all connected clocks to current time
- **Slave clock lines with voltage and current surveillance**. Mains power outage, overload (or low voltage when operating in memory mode) in the clock control line will cause an alarm by red LED and alarm flag in the display. A free-floating switch contact is available to trigger an external alarm device
- **Slave clocks will automatically be stopped when low voltage is detected**
- **Secondary Master Clocks** for expanding the clock system may be synchronised by the *DCFport24* output
- For the **control of world time displays** 26 pre-programmed zone times and one freely configurable zone time may be, at customer's choice, assigned as system (local) time or to any slave clock line
- **1 RS232 serial interface** (output) is available for continuous transmission of time-and-date information in ASCII format.

#### Signalling device

- 0, 2 or 4 programmable signal contacts (switch points/free-floating contacts) capable of 250 VAC/2 A
- Choice of program run for a day, a week or a year
- Up to 600 switch actions programmable
- ON/OFF switching or pulse action
- Fastest possible switching sequence: 1 second
- Reprogrammable every day, week or year, block-building is possible
- Fixed-program calendar through 2099
- Data retention on power outage > 5 years.

#### Additional performance data

- Input terminal for radio control by DCF77, GPS, MSF or similar is available as an option
- NTP input terminal (RJ45) for synchronisation by LAN (option)
- Alphanumeric LCD display for user-friendly dialog-type navigation, time-and-date readout and alarm indications
- Multilingual navigation, 7 languages selectable: English, French, Spanish, Portuguese, German, Italian and Dutch
- Keyboard locked, accessible by PIN-code only.




| Technical data | | |
|---|---|---|
| **Case** | width | 42 TU (213.0 mm) |
| | height | 3 HU (128.0 mm) |
| | depth | cir. 230.0 mm |
| | material | metal |
| | weight | cir. 2.5 kg (incl. power outage batteries) |
| **Milieu** | VDE classification | I |
| | protection grade (EN 60 529) | IP 10 |
| | surrounding temperature | 0 °C up to 40 °C |
| **Electrical values** | mains voltage | 220..230 V AC/50 ... 60 Hz |
| | power consumption | 10 ... 53 VA |
| | line voltage/pulse mode | 12 V or 24 V |
| **Total power output** | 12 V minute pulse | 2000 mA max. (for up to 160 slave clocks at 12 mA) |
| | 24 V minute pulse | 1000 mA max. (for up to 160 slave clocks at 6 mA) |
| | 12 V half-minute pulse | 2000 mA max. (for up to 160 slave clocks at 12 mA) |
| | 24 V half-minute pulse | 1000 mA max. (for up to 160 slave clocks at 6 mA) |
| | 12 V second pulse | 400 mA max. (for up to 30 slave clocks at 12 mA) |
| | 24 V second pulse | 200 mA max. (for up to 30 slave clocks at 6 mA) |
| | *DCFport24* pulse telegr. 12 V | 500 mA max. (for up to 40 slave clocks at 10 mA) |
| | *DCFport24* pulse telegr. 24 V | 250 mA max. (for up to 20 slave clocks at 10 mA) |

| Type | Number of slave clock lines | Number of signalling contacts | Power outage reserve 0,6 Ah/24V | Item No. | € each |
|---|---|---|---|---|---|
| Master Clock | 2 | none | yes | 11.**920**.120 | **1,080.–** |
| Signalling Master Clock | 2 | 2 | yes | 11.**920**.122 | **1,245.–** |
| Signalling Master Clock | 4 | 4 | yes | 11.**920**.144 | **1,615.–** |

| Extras | Item No. | € each |
|---|---|---|
| 19" rack element, 84 WU, 3 HU | 01.**920**.084 | **150.–** |
| Blanking plate, 42 TU, 3 HU | 01.**920**.142 | **20.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |
| NTP input for system time synchronisation via LAN | **-98** | **298.–** |

# DCF77 Receiving Aerial for all type series 920 Master Clocks

03.**925**.111 shown

The DCF77 time signal telegram, as transmitted by the German time signal transmitter at Mainflingen near Frankfurt/Main, is a superior time standard for synchronization and automatic change from summer to winter time of radio controlled stand-alone clocks and master/slave clock systems. This PEWETA DCF77 aerial provides time-and-date information to all PEWETA Master Clocks and Signalling Master Clocks.

- Weatherproof plastic case (IP 68), for indoor/outdoor mounting, dimensions (W x H x D) cir. 100 x 65 x 37 mm
- Stainless steel mounting bracket
- 5 m connecting wire (LIYCY 4 x 0,25 mm²) included in delivery shipment, may be extended to a maximum length of 100 m.

| Type | Item No. | € each |
|---|---|---|
| External DCF77 receiving aerial (IP 68), for PEWETA Master Clocks | 03.**925**.111 | **149.–** |

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# Booster Amplifier

## Wall or top hat bar mounting, or 19" rack mounting

**Booster amplifier**

Type series **930**

When a Master Clock reaches its limits of total power output, pulse boosting amplifiers are needed for further extension of the master/slave clock system.

The short-circuit-proof slave clock line output terminals can be freely configured as

- alternating polarity minute pulse
- alternating polarity second pulse
- *DCFport24* pulse telegram.

Electronic buffer memory and automatic updating circuitry cover power outages and ensure return to correct time if power returns within 24 hours.

### Item No. 10.930.124

1 slave clock line input/output terminal 12/24 V, total output power 1.5 A at either 12 V or 24 V, capable of controlling up to

- 250 conventional slave clocks (at 6 mA/24 V)
  or
- 125 *DCFport24* pulse telegram slave clocks (á 12 mA/24 V).

Plastic case (IP 20/EN 60529) for wall mounting or mounting on a 35 mm top hat bar. Operating voltage 230 V AC/50 ... 60 Hz, (external power supply for mounting on a 35 mm top hat bar, included in delivery shipment).

### Item No. 11.930.224

2 slave clock lines input/output terminals 12 V or 24 V, total output power 3 A (1.5 A per line), capable of controlling up to

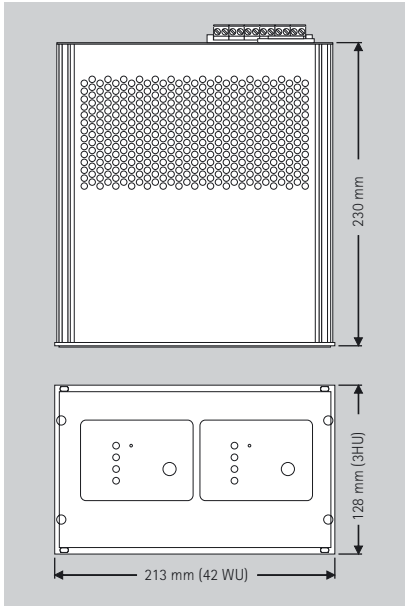
- 500 (max. 250 per line) conventional slave clocks (at 6 mA/24 V)
  or
- 250 (max. 125 per line) *DCFport24* pulse telegram slave clocks (at 12 mA/24 V).

Metal case (IP 10/EN 60 529) for mounting in 19" sub-rack, dimensions (W x H x D) 213 mm (42 WU) x 128 mm (3 HU) x 230 mm. Operating voltage 230 V AC/50 ... 60 Hz.

11.**930**.224 shown

| Technical data | 10.**930**.124 | 11.**930**.224 |
|---|---|---|
| Case | plastic case for wall mounting or mounting on top hat bar | metal case 3 HU / 42 WU for mounting in sub-rack |
| Dimensions | cir. 100 x 75 x 125 mm | cir. 213 x 128 x 230 mm |
| Operating voltage | 230 V AC/50 ... 60 Hz | 230 V AC/50 ... 60 Hz |
| Pulse/line output voltage | 24 V | 24 V |
| Pulse power | 1 x 1500 mA | 2 x 1500 mA |
| minute pulse | for up to 250 slave clocks at 6 mA | for up to 500 slave clocks at 6 mA |
| second pulse | for up to 250 slave clocks at 6 mA | for up to 500 slave clocks at 6 mA |
| *DCFport24* pulse telegram | for up to 125 slave clocks at 12 mA | for up to 250 slave clocks at 12 mA |

| Type | Item No. | € each |
|---|---|---|
| Booster amplifier for wall mounting or mounting on top hat bar, 1 line output, 24 V/1.5 A | 10.**930**.124 | **699.–** |
| Booster amplifier in modular cassette for mounting in 19" sub-rack, 2 line outputs, 24 V/2 x 1.5 A | 11.**930**.224 | **1,496.–** |



10.**930**.124 shown

▲ Booster amplifier for wall mounting or mounting on top hat bar

◀ Booster amplifier in 3 HU / 42 WU metal case for mounting in sub-rack



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# PEWETA *AirPort24* Transmitter and Repeater

## Time distribution by RF transmission (868 ... 869 MHz)

As an alternative to wire-bound clock systems or to individual clocks with DCF77 aerials, the PEWETA *AirPort24* radio telegram technology permits the distribution of a time signal by radio inside or outside of buildings.

The PEWETA *AirPort24* transmitter receives the time and date telegram either by wire from a PEWETA type series 920 Master Clock (see pages 184...187), by radio from a DCF77 receiving aerial or as an NTP client by LAN and transmits the complete time/date information by radio (in the 868..869 MHz UHF-band) with a range of about 250 m inside buildings (up to cir. 1,000 m outdoors).
All PEWETA *AirPort24* radio telegram slave clocks within this range will automatically self-adjust to the current time and date indication.

Using PEWETA *AirPort24* repeaters extends the range by a further 250 m per repeater.

### PEWETA *AirPort24* transmitter

Transmitter with integrated aerial for distributing the PEWETA *AirPort24* time/date telegram to all radio telegram slave clocks within a radius of cir. 250 m inside buildings (up to cir. 1,000 m outdoors).
Choice of **input signal**:

- **PEWETA *DCFport24* pulse telegram**
  for synchronization by a PEWETA type series 920 Master Clock
- **DCF77**
  for synchronization by a detached DCF77 receiving aerial
- **NTP**
  for synchronization by LAN (NTP client).

### PEWETA *Airport24* repeater

Receives the PEWETA *AirPort24* time/date telegram from the PEWETA *AirPort24* transmitter and transmits the PEWETA *AirPort24* time/date telegram to radio telegram slave clocks within a radius of cir. 250 m inside buildings (up to cir. 1,000 m outdoors).

10.**940**.100 shown

| Technical data for transmitter and repeater | | |
|---|---|---|
| **Frequency range** | | 868 ... 869 MHz |
| **Output power** | | adjustable in steps, up to 500 mW |
| **Operating voltage** | | 230 V AC/50 ... 60 Hz (mains adapter included) |
| **Case** | material | plastic, light grey |
| | dimensions | cir. 199 x 178 x 57 mm |
| | protection grade | IP 54 (EN 60529) |

| **PEWETA *AirPort24* transmitter** | **Item No.** | **€ each** |
|---|---|---|
| Input: PEWETA *DCFport24* pulse telegram | 10.**940**.100 | **589.–** |
| Input: DCF77 (receiving aerial and 5 m connecting wire included) | 10.**940**.110 | **725.–** |
| Input: NTP synchronization by LAN (NTP client) | 10.**940**.200 | **869.–** |

| **PEWETA *AirPort24* repeater** | **Item No.** | **€ each** |
|---|---|---|
| Input: PEWETA *AirPort24* radio telegram | 10.**941**.100 | **679.–** |

### Characteristics

- Transmission of the complete time/date telegram
- Reliable transmission of time/date telegram within a range of 250 m inside buildings, more than 1,000 m outdoors
- Unlimited number of *AirPort24* telegram slave clocks within this range
- Cost-effective and simple wireless installation
- Capable of unlimited expansion by using repeaters
- Location of clocks at random, indoors or outdoors within transmission range
- Also suitable to expand existing, wire supported slave clock networks.

10.**941**.100 shown

***AirPort24* transmitter and repeater**

Type series **940**

Type series **941**

*Any questions about technical details?*

*We will be happy to help with hints to planned projects and examples of specific applications.*
*Don't hesitate to contact us. We look forward to your call or your e-mail.*

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# Slave Clock Control Unit

## minute pulse 24 V output

**Slave clock control unit**

Type series
**950**

This slave clock control unit, governed by DCF77, is capable of controlling up to four indoor/outdoor slave clock movements (at 6 mA/24 V each). Specifically suited to operate in- or outdoor clocks (e.g. with advertising) and all other single, double, or 4-faced slave clocks.

By means of a DCF77 aerial the control unit receives the exact time including the trigger signal for the automatic change-over between summer and winter time. In case of impaired reception due to local conditions pulse transmission to the slave clocks connected will be kept up. After a power outage the slave clocks connected will automatically be adjusted to match the correct time. After installation the control unit operates completely autonomous and maintenance-free.

- Alternating polarity minute pulse, 24 V
- Total output power cir. 30 mA/24 V
- Output is tolerant of circuit shorting and overload
- Electronic buffer memory and update circuitry
- Fully automatic read-in of current time upon installation or after power outage, automatic change-over between summer and winter time
- Operating voltage 230 V AC/50 ... 60 Hz, power consumption cir. 2 VA
- Weatherproof (IP 65/EN 60 529) plastic case for wall mounting indoors/outdoors or mounting on a 35 mm top hat bar. Dimensions (W x H x D) cir. 120 x 80 x 55 mm
- External DCF77 receiving aerial (IP 68/EN 60 529) with stainless steel mounting bracket included. Connecting wire (LIYCY 4 x 0,25 mm²), 5 m included in delivery shipment, may be extended to a maximum length of 50 m.

10.**950**.100 shown

| Type | Item No. | € each |
|---|---|---|
| Slave clock control unit for wall mounting | 10.**950**.100 | **399.–** |
| Slave clock control unit for mounting on top hat bar | 10.**950**.101 | **409.–** |

| Options | Suffix | Surcharge € each |
|---|---|---|
| *DCFport24* input for reading the *DCFport24* pulse telegram from a type series 920 Master Clock | **-93** | **none** |
| *AirPort24* input for reading the time information from the *AirPort24* radio telegram provided by a type series 940 *AirPort24* transmitter | **-94** | **159.–** |
| Input for GPS radio control, incl. GPS aerial (IP 65/EN 60 529) | **-95** | **695.–** |
| NTP input for system time synchronisation via LAN | **-98** | **298.–** |



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# NTP Time Server

## Network time distribution

The PEWETA NTP Time Server supplies the current time and date signal, received from the German DCF77 time protocol radio transmitter or from GPS satellite, to an IT network.

This enables all "clients" within the network, like for instance PCs, servers, smart phones, telephone systems, printers, and even clocks, to synchronize with this time base. A temperature controlled crystal oscillator (TXCO) ensures accurate timekeeping even in cases of a missing DCF77 or GPS radio signal. Maximum deviation during autonomous operation is +/- 16 seconds per year (standard version). Optionally, the NTP Time Server can be equipped with a crystal oven (OCXO), which reduces the maximum deviation during autonomous operation down to +/- 1.6 (!) seconds per year.

For security of operation, two time servers can be used to safeguard availability on the network (system redundancy). A web-based user interface provides for simple configuration of status messages, network settings, and safety adjustments. The support for a multitude of interfaces and formats offers maximum compatibility to common networks. The server, operating under a LINUX-based operating system, ensures maintenance-free long-term usage and can be updated if necessary. On the NTP Time Server PRO version, various common ASCII time codes can be selected for output through one of the 2 serial RS232 interfaces. Individual codes can be supplied on request.

If at least three NTP Time Servers are clustered (system redundancy) they act with a shared IP address on the network. If one of the NTP Time Servers provides a deviating time signal, this device will be deactivated and its function will be taken over by the other NTP Time Servers. Clustering functionality is included in each PEWETA NTP Time Server version as standard.

11.**960**.121

11.**960**.120 shown

| Technical data | NTP Time Server PRO | NTP Time Server BASIC |
|---|---|---|
| Case | 19" rack mount | table housing |
| Dimensions | 1HU/84DU, WxHxD: 443x45x288 mm | WxHxD: cir. 335x45x240 mm |
| Network interface | 2xRJ45 10/100 MBit | 1xRJ45 10/100 MBit |
| Serial interface | 2xRS232 (menu-guided setup) | – |
| 10MHz interface | BNC socket, TTL at 50 Ohm | – |
| Alarm relay | 1x free-floating | – |
| Status messages | via E-Mail, WinMail, SNMP, Display | |
| Netwerk protokols | TCP, UDP, TELNET, FTP, SSH (inkl. SFTP, SCP), HTTP, HTTPS, SYSLOG, IP v4, IP v6, DHCP, DHCP v6 | |
| NTP protokols | NTP v2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905) | |
| NTP broadcast modes | Unicast, Manycast, Multicast, Broadcast | |
| SNMP | SNMPv1 (RFC 1157), SNMPv2c (RFC 1901–1908), SNMP v3 (RFC 3411–3418) | |
| Display | LC display, 2x40 characters, illuminated | |
| Power supply | 100 ... 240 V AC (50 ... 60 Hz) | |
| | 24 V DC (on request) | – |
| Power consumption (without options) | 30 watts | 20 watts |

| Type | Item No. | € each |
|---|---|---|
| NTP Time Server PRO, including DCF77 radio receiver | 11.**960**.120 | **3,290.–** |
| NTP Time Server PRO, including GPS radio receiver | 11.**960**.130 | **3,990.–** |
| NTP Time Server BASIC, including DCF77 radio receiver | 11.**960**.121 | **2,590.–** |
| NTP Time Server BASIC, including GPS radio receiver | 11.**960**.131 | **2,990.–** |

| Extras | Item No. | € each |
|---|---|---|
| 19" mounting kit for NTP Time Server BASIC (resulting dimensions are 1 HU/84 WU) | 01.**960**.100 | **79.–** |

| Options for NTP Time Server PRO | Suffix | Surcharge € each |
|---|---|---|
| *DCFport24* pulse telegramm 24 V output, output power 450 mA, for up to 35 *DCFport24* slave clocks | **-42** | **995,–** |
| Quartz oszillator OCXO, accuracy level +/- 1.6 seconds/year | **-61** | **425,–** |
| 2 additional RJ45 10/100BASE-T ports | **-62** | **590,–** |
| IRIG-B output | **-63** | **650,–** |

**NTP Time Server**

Type series **960**

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# 19" Modular Master Clock System

**Modular Master Clock System**

Type series
**980**

The microprocessor-controlled Master Clock System is composed of modules and may be freely configured to meet any and all individual customer demands (choice of type and number of modules according to requirement). All functional units (henceforth called modules) are packaged as plug-in cassettes to fit 19" racks in free-standing or wall-mounted cabinets, already owned by the customer or to be separately ordered from us. The integrated system bus takes care of interconnecting and addressing the individual modules. Additional interfaces facilitate data exchange with all established networks.

## Principle of Function

The virtual heart of the Master Clock System is the time base module, marked 1 in the schematic, from which all control of the Master Clock System emanates. To safeguard the security of operation, as a rule two time base modules (system redundancy) are used. In case of a power disruption, programmed configurations will be retained in a flash memory. The system is synchronised by the radio receiver module 2, connected to a choice of DCF77, GPS or RDS remote antenna.

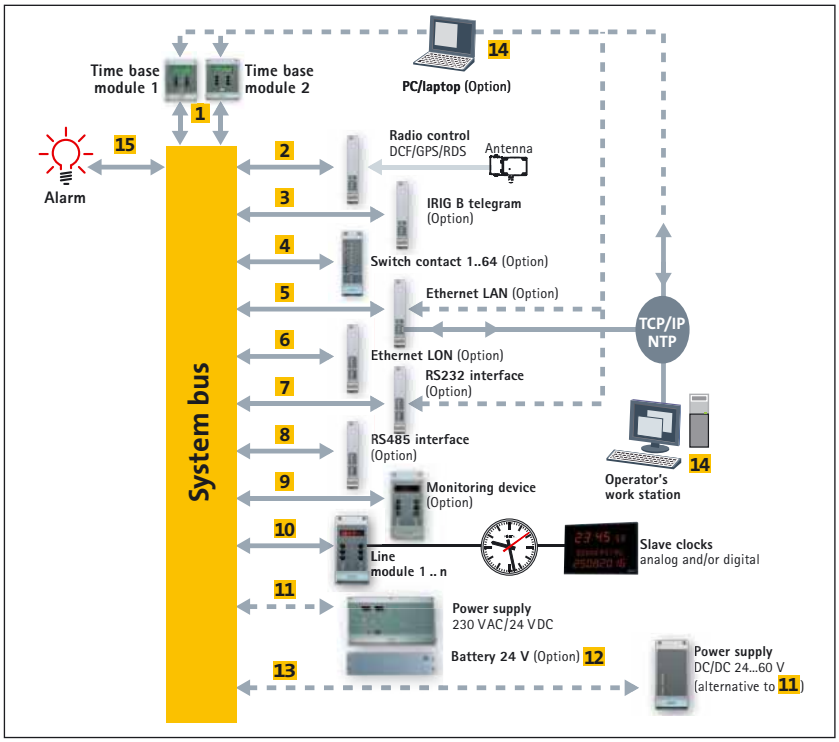
Operation of slave clocks is facilitated by a separate line module 10 for every clock line, with a variety of choices of pulse patterns and line monitoring capabilities. An additional monitoring device 9, measuring and indicating grounding resistance, line voltage and current on each line, is optional. Incoming error messages may be relayed through the earth-free contact 15 or monitored on a locally provided operator PC 14.
For actuation of optical or acoustic signals (to indicate start/end of work and/or breakperiods) up to 8 switching modules 4 may be integrated, with 8 earth-free contacts each.
Power is supplied to the Master Clock System by an internal mains adapter 11. A rechargeable battery 12 provides power in case of a mains disruption (emergency power). Alternatively, power may be provided from an external source 13.
Programming and control of the Master Clock System are effected either at the time base module or directly at the individual modules.

Make your choice of desired component groups and modules on this and the following pages or call us – we will be pleased to offer you an equipment set that meets your specific demands!

Example shown: 19" 15 HU wall-mounted cabinet with modules and blanking plates

Software and interface hardware for control from a locally installed PC 14, connected either serially by modem 7, or by LAN 5, are available as options. Existing IT systems may be integrated either by LAN 5 or by serial interfaces 7, 8.

The Master Clock System will be completely wired and mounted in a wall-mounted or free-standing cabinet at our factory. Modules will be arranged to customer's specification.



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# Free-Standing Cabinet 38 HU

Free-standing cabinet 38 HU interior height, with provisions for mounting of 19", 3 HU racks. Feet adjustable for height, lockable clear front door. All wiring connections accessible through rear wall, secured by a lockable metal door. Side panels are detachable with inside locks. Dimensions (W x H x D) cir. 600 x 1.800 x 650 mm, weight empty cir. 75 kg.

| Type | Capacity | Item No. | € each |
|---|---|---|---|
| 19" free-standing cabinet, 38 HU (without content) | 36 HU, 84 WU | 11.**980**.138 | **4,990.–** |

# Wall-Mounted Cabinet, 12 HU, 15 HU

Wall mounted cabinet for 19" racks (3 HU each), interior height 12 HU or 15 HU. Lockable clear front door. The mounting frame is hinged to swing out and make all wiring connections accessible from behind. Dimensions (W x H x D) 12 HU: cir. 600 x 612 x 515 mm, 15 HU: cir. 600 x 746 x 515 mm, weight empty cir. 16 kg and 18 kg resp.

| Type | Capacity | Item No. | € each |
|---|---|---|---|
| 19" wall-mounted cabinet, 12 HU (without content) | 12 HU, 84 WU | 11.**980**.112 | **2,390.–** |
| 19" wall-mounted cabinet, 15 HU (without content) | 15 HU, 84 WU | 11.**980**.115 | **2,590.–** |

# 19" Rack Element (component group carrier)

## with integrated system bus

19" rack element (3 HU) for plug-in mounting of the required component groups. All individual modules are interconnected by the integrated system bus, each module's address being defined by its mounting position. The external connections of the individual modules are located at their rear faces. Mounting different types of modules on the same rack element is permissible. Unoccupied spaces must be covered by blanking plates.

| Type | Capacity | Item No. | € each |
|---|---|---|---|
| 19" rack element, 3 HU, incl. system bus (without content) | 3 HU, 84 WU | 11.**980**.184 | **825.–** |
| Blanking plate, 84 WU | 3 HU, 84 WU | 01.**980**.184 | **125.–** |
| Blanking plate, 12 WU | 3 HU, 12 WU | 01.**980**.112 | **59.–** |
| Blanking plate, 4 WU | 3 HU, 4 WU | 01.**980**.104 | **39.–** |

# Time Base Module

The microprocessor-controlled time base module is used to set the operating parameters for the entire Master Clock System, it takes central control and monitors all system functions. Once programmed, the configuration will be saved in a flash memory in case of power disruptions. Change between summer to winter time is automatic by radio control through DCF77, GPS or RDS and the respective remote antennas and/or receivers. Programming is effected by six buttons on the front panel or - optionally - by a locally installed PC or by modem from a network. Data interfaces and programming software for all established operating systems may be ordered as extras. Error warnings in case of malfunction or power disruption are signalled by the alarm output contact or the operator's PC. The two-line, 16 digit LCD display in the front plate indicates current (system) time and date and (multiple language) messages for operator guidance. LEDs indicate current status. To enhance the security of operation, as a rule two time base modules (redundant system) are used in parallel.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Time base module | 3 HU, 20 WU | 11.**980**.211 | **2,050.–** |

**Modular Master Clock System**

Type series **980**

Make your choice of desired component groups and modules on this and the following pages or call us – we will be pleased to offer you an equipment set that meets your specific demands!

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**Modular Master Clock System**

Type series
**980**

Make your choice of desired component groups and modules on this and the following pages or call us – we will be pleased to offer you an equipment set that meets your specific demands!

# Receiver Module with Antenna

Capable of synchronising one or more time base modules, the receiver modules come complete with appropriate (DCF77, GPS or RDS) remotable antennas. Antennas may be mounted indoors or outdoors (GPS outdoors only). LED indicator for quality of reception. Mounting device for antenna and 10 m connecting wire included (extension to several times this length possible, please call for information).

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Receiver module DCF77, incl. antenna (IP55) | 3 HU, 4 WU | 11.**980**.221 | **980.–** |
| Receiver module GPS, incl. antenna (IP65) | 3 HU, 4 WU | 11.**980**.231 | **1,680.–** |
| Receiver module RDS, incl. antenna (IP65) | 3 HU, 4 WU | 11.**980**.241 | **1,080.–** |

# Line Driver Module

Controlled by the superimposed time base module, the line driver modules administer switched power to the slave clock lines connected to them. The line voltage is either 24 V or 60 V (48 V on request) the line/pulse current is 1 A per module max., protected by an electronic fuse. The pulse mode may be chosen as:

- minute pulse, polarity alternating
- half-minute pulse, polarity alternating
- second pulse, polarity alternating
- PEWETA *DCFport24* pulse telegram (24 V version only).

Module circuitry includes automatic recognition of too high and/or too low line voltage with automatic safety cut-off, at the cut-off or alarm threshold of your choice. In case of a malfunction of the time base module, the line driver modules automatically without delay take over control of their slave clock lines. The line driver modules may be programmed either through the time base module or by six buttons on their front plates. The slave clock line may be visually monitored by means of a 6-digit software monitor slave clock, the LED display of which is also used for operator guidance during programming. LEDs on the front panel enable instantaneous status recognition..

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Line driver module, 1 A, line voltage 24 V | 3 HU, 12 WU | 11.**980**.324 | **890.–** |
| Line driver module, 1 A, line voltage 60 V | 3 HU, 12 WU | 11.**980**.360 | **990.–** |

# Monitoring Device

For extra security of operation, the monitoring device monitors grounding resistance, line voltage and line current of the connected line modules. Voltage and current of each line may be visually checked by means of the 6-digit digital LED display. If a line is grounded, an alarm will be triggered. LEDs on the front panel enable instantaneous status recognition.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Monitoring device | 3 HU, 12 WU | 11.**980**.390 | **1,890.–** |

# Switching Module

The switching module offers 8 earth-free contacts for triggering optical and/or acoustic signals or alarms as well as on/off control of other systems (such as lighting or illumination). 4 of the 8 relay contact outputs are rigged for alternate function switching, the other four are for on/off switching only. On/off interval switching is programmable with intervals of 1 ... 59 seconds. A three-position switch with indicating LED per channel enables manual override of the automatic function to permanently on or off. Current capacity per contact is 6 A at 230 VAC. Up to 8 switching modules (8 x 8 = 64 channels or circuits) may be operated in one Master Clock System. LEDs on the front panel enable instantaneous status recognition.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Switching module, 8 free-floating switch contacts | 3 HU, 8 WU | 11.**980**.481 | **1,100.–** |



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# Mains Power Supply Module

Power for the entire Master Clock System is supplied by the mains power supply. Input voltage is 230 VAC +/- 10 %. Output voltage is 24 VDC (rated voltage). Three output current capabilities are available: 5 A, 10 A and 20 A sustained load. The power supply is protected against short circuits and overloads. 2 LED digital displays indicate input and output voltage and current. Alarm threshold for low input voltage cut-off may be programmed. LEDs on the front panel enable instantaneous status recognition.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Mains power supply module 230 VAC/24 VDC – 5 A | 3 HU, 48 WU | 11.**980**.605 | **1,490.–** |
| Mains power supply module 230 VAC/24 VDC – 10 A | 3 HU, 48 WU | 11.**980**.610 | **2,090.–** |
| Mains power supply module 230 VAC/24 VDC – 20 A | 3 HU, 48 WU | 11.**980**.620 | **3,490.–** |

# Battery Module

Lead-acid rechargeable batteries with immobilised electrolyte are used to supply power to the Master Clock System and the slave clock lines (duration determined by number of slave clocks connected). The batteries are protected against excessive input current by automatic circuit breakers. Two battery capacities are available: 20 Ah or 65 Ah. Maintenance-free Dryfit rechargeable batteries come complete with 19" rack element.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Battery module 24 V/20 Ah | 3 HU, 84 WU | 11.**980**.720 | **2,090.–** |
| Battery module 24 V/65 Ah | 6 HU, 84 WU | 11.**980**.765 | **3,990.–** |

# DC/DC Converter Module

If power to the Master Clock System is supplied from an external DC source, the 8 VDC converter module is needed to supply the individual modules. Input and output voltages are completely insulated against each other. Input is protected against wrong polarity and momentary power loss. Outputs are short-circuit-proof. The number of converter modules required is determined by the number of modules to be supplied.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| DC/DC converter module 24 V/8 V/2 A | 3 HU, 12 WU | 11.**980**.824 | **750.–** |
| DC/DC converter module 60 V/8 V/2 A | 3 HU, 12 WU | 11.**980**.860 | **750.–** |

# Data Interface Modules, Software

The Master Clock System may be expanded by integrating additional data interfaces. RS232 and RS485 interface modules are available to communicate with PCs/EDP- and communications networks as well as Ethernet interfaces to match the Master Clock System up with Ethernet LANs and interfaces with LON Works networks. Thus other peripheral equipment connected to the LAN will receive accurate time through the NTP protocol.

A variety of software for programming the Master Clock System is available:

- PC time software to use UTC time on the PC
- Operator software for programming various time bases
- Signalling software for the programming of switching module outputs
- Alarm software to program alarm levels and outputs to relay the alarm.

| Type | Dimensions | Item No. | € each |
|---|---|---|---|
| Data interface module RS232 | 3 HU, 4 WU | 04.**980**.911 | **740.–** |
| Data interface module RS485 | 3 HU, 4 WU | 04.**980**.912 | **895.–** |
| Data interface module Ethernet | 3 HU, 4 WU | 04.**980**.915 | **1,790.–** |
| PC time software | | 05.**980**.931 | **650.–** |
| Operator software | | 05.**980**.932 | **1,150.–** |
| Signalling software | | 05.**980**.933 | **1,250.–** |
| Alarm software | | 05.**980**.934 | **1,190.–** |

**Modular Master Clock System**

Type series **980**

Make your choice of desired component groups and modules on this and the following pages or call us – we will be pleased to offer you an equipment set that meets your specific demands!

*All prices are subject to change without notice, packing and shipping cost (see page 203) as well as VAT for deliveries within Germany added. Prices shown as of January 1st, 2017. If you desire additional information, please ask for the detailed type information sheet, quoting the Item Number. Alternatively, access our product data file on the Internet at www.peweta.com.*

# Reading Distances [1)]
## (approximated to DIN 41 075)

Reading Distances

### Analog clocks

| Visible face diameter | Reading distance indoors (cir.) in lighted rooms or halls | Reading distance outdoors (cir.) unlighted clocks in average to favourable daylight conditions | Reading distance outdoors (cir.) backlighted clocks in darkness |
|---|---|---|---|
| 200 mm | 10 m | – | – |
| 250 mm | 15 m | – | – |
| 300 mm | 20 m | – | – |
| 350 mm | 25 m | – | – |
| 400 mm | 30 m | 25..50 m | 25..30 m |
| 500 mm | 40 m | 40..75 m | 35..40 m |
| 600 mm | 50..60 m | 60..100 m | 55..60 m |
| 800 mm | 90..100 m | 100..150 m | 90..100 m |
| 1000 mm | 120..130 m | 130..200 m | 115..130 m |
| 1500 mm | at least 220 m | 210..310 m | 175..200 m |
| 2000 mm | at least 350 m | 310..600 m | 250..300 m |
| 2500 mm | at least 400 m | 370..800 m | 320..350 m |

### Digital clocks/displays

| Character height | Display system | Reading distance indoors (cir.) | Reading distance outdoors (cir.) |
|---|---|---|---|
| 13 mm | LED | 4 m | – |
| 25 mm | LED | 7 m | – |
| 30 mm | LED | 10 m | – |
| 40 mm | LCD | 15 m | – |
| 45 mm | LED | 18 m | – |
| 54 mm | LCD | 20 m | – |
| 57 mm | LED | 20 m | – |
| 74 mm | LCD | 25 m | – |
| 90 mm | LCD | 35 m | – |
| 100 mm | LED | 40 m | – |
| 140 mm | LCD | 50 m | – |
| 160 mm | LED | 70 m | 60..70 m |
| 250 mm | LED | 110 m | 90..100 m |
| 460 mm | LED | 200 m | 160..180 m |

[1)] Reading distances are distances between the clock and an observer, derived from practical experiments. For analog clocks, black DIN bar markings and black bar-type hands on white clock faces (in accordance with DIN 41 091) were used.
**All distances are given as aids to orientation only and are without obligation.**



*All information is without legal obligation · Subject to change without notice · Status as of January 1st, 2017.*

# IP Protection Grades
## acc. to EN 60 529

The grade of protection indicates the suitability of electrical components for various environmental conditions. Different grades of suitability are classified into so-called **IP codes**. IP stands for International Protection.

The IP protection grades define the grade of protection that the case provides against contact, foreign solid objects, and water.
The protection rating is always indicated by the letters IP followed by two digits. The **first digit** indicates the degree of protection that the case provides against contact and solid foreign objects. The **second digit** indicates the degree of protection that the case provides against liquids and water respectively.

| First Digit | Protection against solid foreign objects | Protection against body contact |
|---|---|---|
| **0** | No protection | No protection |
| **1** | Large solid foreign objects (diameter 50 mm and greater) | Protected against large parts of the body (diameter 50 mm) |
| **2** | Medium-size solid foreign objects (diameter 12 mm and greater) | Finger protection (diameter 12 mm) |
| **3** | Small solid foreign objects (diameter 2.5 mm and greater) | Tools and wires (diameter 2.5 mm and greater) |
| **4** | Granular solid foreign objects (diameter 1 mm and greater) | Tools, wire, and small wires (diameter 1 mm and greater) |
| **5** | Dust protection; dust deposits tolerable, but total amount must not be harmful to the device's function | Full protection |
| **6** | No ingress of dust | Full protection |

| Second Digit | Protection against liquids |
|---|---|
| **0** | No protection |
| **1** | Protected against vertically falling drops of water |
| **2** | Protected against direct sprays of water up to 15° from the vertical |
| **3** | Protected against direct sprays of water up to 60° from the vertical |
| **4** | Protected against water sprayed from all directions, limited ingress permitted |
| **5** | Protected against low pressure jets of water from all directions |
| **6** | Protected against heavy seas or powerful water jets (flooding) |
| **7** | Protected against the effects of temporary immersion in water |
| **8** | Protected against the effects of continuous immersion in water |

**Examples:**

- Indoor wand clocks with protection grade **IP 54**
  (range of application e.g. indoor swimming pools) have movements protected against
  **5** harmful amounts of dust deposits
  **4** water sprayed from all directions.

- A DCF77 radio receiving aerial with protection grade **IP 68**
  for mounting outdoors is
  **6** dust proof
  **8** waterproof (protection against immersion).

IP Protection Grades

PEWETA CLOCKS

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**Register of Item Numbers** in numerical order

# Transmission Pattern of “Legal” Time
## by the DCF77 low frequency radio transmitter

**Transmission pattern of “legal” time**

**Duration of summer time**

The DCF77 time signal transmitted from Mainflingen near Frankfurt/ Main is derived from nuclear decay timing devices operated and controlled by the Federal Establishment for Physics and Technology (PTB) at Braunschweig. Range of this radio signal is approximately 1,500 km. Beyond this range we recommend radio control by GPS (Global Positioning System).

**Duration of Summer Time***
Beginning and End of summer time have been set for the following days – 01,00 world time:

| | Beginn | Ende |
|---|---|---|
| 2017 | Sunday, March 26th | Sunday, October 29th |
| 2018 | Sunday, March 25th | Sunday, October 28th |
| 2019 | Sunday, March 31st | Sunday, October 27th |
| 2020 | Sunday, March 29th | Sunday, October 25th |

*for European Union countries



*All information is without legal obligation · Subject to change without notice · Status as of January 1st, 2017.*

# The General Terms and Conditions of Sale
## of PEWETA KG (GmbH+Co.), Hamburg

### 1. General
The following terms and conditions alone shall apply to all contracts for sale and contracts for work and materials concluded with us and to any offers made by us, if and to the extent that nothing to the contrary is agreed in writing. The general terms and conditions of the purchaser shall not apply, even if we do not expressly repudiate them.

### 2. Offers, product documentation and the acceptance of orders
Until such time as an order is confirmed in writing, any offers made by us shall remain non-binding on us. Only our written confirmation of the order shall stipulate the scope of the delivery or performance to be given. Any technical specifications and descriptions which are set out in offers or brochures or any other printed material and on the internet shall only be binding if they are designated as binding in the confirmation of the order.

We reserve the right to make any changes as the result of technical progress, as well as any optical changes, to the extent that such changes are not detrimental to the client and are reasonable.

Orders submitted by the purchaser shall only be deemed to have been accepted when they have been confirmed by us in writing, either by fax or by e-mail, by dispatch of the goods or by the issue of an invoice. Cancellations of and changes to orders shall only be valid after our written confirmation thereof has been received.

### 3. Prices and conditions of payment
To the extent that nothing is expressly agreed to the contrary, our ex works prices (EXW Incoterms 2010) from Hamburg shall apply, plus a fixed sum in respect of packaging and transport and value-added tax at the statutory rate. No shipping insurance cover is included in our prices.

The purchaser may only set off any counter-claims which it may have if such counter-claims are not disputed or if they have the force of *res judicata*. The same shall apply to the enforcement of any rights of retention.

### 4. Delivery periods and delivery conditions
Delivery periods shall be deemed to have been complied with if, by the date of the expiry of such delivery periods, the subject-matter of the delivery has been readied for dispatch ex works, or, should the dispatch of the goods be delayed for reasons which are attributable to the purchaser, if the goods' readiness for dispatch has been notified within the agreed delivery period.

Partial deliveries in accordance with an agreed delivery schedule and agreed volumes shall be permitted and may be invoiced separately.

Sale and delivery of the goods shall be subject to correct and punctual supply to ourselves.

### 5. Transfer of risk, damage during shipping and theft
Risk shall be transferred to the purchaser when the goods leave our warehouse or, if the purchaser has to pick up the goods himself and the due date has passed, whenever the goods' readiness for dispatch has been notified to the purchaser. The goods shall therefore in all circumstances be shipped at the risk of the purchaser. We shall not be liable for theft or for any damage which occurs during shipment.

### 6. The return of goods
Any return of goods which is not based on our statutory obligations shall be subject to our prior written consent and shall be in accordance with the following provisions: custom-made goods and goods which are not stocked by us as a matter of course may not be returned. Goods shall be taken back at their net invoice price excluding any ancillary costs (e. g. packaging or transport costs) minus a fee of 20% in respect of the inspection and processing of the goods which are taken back and any other costs associated with such return, subject to the condition that the goods are sent back to us shipping paid, in their original packaging and with their original value. The approval of any returned goods shall be a matter for us alone. Should any costs be incurred in connection with returning the goods to their original condition, the purchaser shall bear such costs.

### 7. Liability for defects
Any claims pursuant to visible defects shall only be permissible if they are notified to us in writing immediately and at the latest within a period of eight calendar days from the date on which the goods are received. Hidden defects must also be notified to us immediately and at the latest within a period of eight calendar days from the date of their discovery. In the event of a substantiated claim which is notified within the periods set out above, we may at our discretion and within a reasonable period repair the goods or deliver replacements free of charge. Apart from that the provisions of the law shall apply.

Claims in respect of defects in accordance with section 437 of the *Bürgerliches Gesetzbuch* [German Civil Code] shall be time-barred twelve months from the date of delivery. This provision shall not apply to claims for damages and in respect of the reimbursement of any expenses incurred. The statutory periods shall apply to such claims.

### 8. General liability
Claims for compensation of any nature which may be brought against us and our legal representatives and agents shall be excluded, in the absence of any intent or gross negligence or the breach of a material contractual obligation on our part.

In accordance with this provision, the breach of a material contractual obligation shall mean any obligation of which the observance makes the proper execution of the contract possible and on the observance of which the purchaser therefore may duly rely.

Liability for the gross negligence of our employees, to the extent that such employees are not management personnel, shall however be limited to compensation for typically foreseeable damage. This limitation of liability shall not apply to any breach of a material contractual obligation within the meaning of the previous paragraph.

The limitations and exclusions of liability set out above shall not apply to any liability pursuant to the *Produkthaftungsgesetz* [German Law on Product Liability] or to any domestic laws which implement the Product Liability Regulation or in the event of the death of, or physical injury to a person, or prejudice done to the health of a person.

### 9. Retention of title
We shall retain title to the delivered goods until payment is made to us in full of all outstanding amounts due pursuant to the commercial relationship.

It shall only be permissible to sell on the delivered goods in the normal course of business subject to a retention of title, and only if the right to receive payment pursuant to the on-sale is assigned to us. The purchaser shall be prohibited from pledging the goods or transferring them by way of security and shall also be prohibited from concluding any agreement in relation to an assignment. The purchaser must inform us immediately of any pledge or any other impairment of our rights by third parties. The purchaser hereby assigns to us in advance any rights which may accrue to it pursuant to the on-sale of our goods. We hereby accept such assignment. Should the value of the security given to us exceed the sums due to us by more than 10%, we undertake at our discretion and at the request of the purchaser to release the corresponding security.

### 10. Place of performance, place of jurisdiction and applicable law
The exclusive place of performance shall be Hamburg. The exclusive place of jurisdiction for all disputes with commercial parties or with persons who are not generally subject to the jurisdiction of a domestic German Court shall be Hamburg. At our discretion we may instigate proceedings against the purchaser before the Court which has jurisdiction over the location of its registered office or before the Arbitral Tribunal of the German Institution for Arbitration (DIS). In the event of arbitration proceedings, the location of the arbitration shall be Hamburg.

German law shall apply. The United Nations Convention on Contracts for the International Sale of Goods shall not apply. The Incoterms 2010 shall apply, as amended.

**The general terms and conditions of sale**

**Prices, freight and handling**

| Prices | Packing, Freight, Insurance |
|---|---|
| All prices indicated in EURO (€), based on delivery ex works Hamburg (EXW, according to INCOTERMS 2010) and are on a recommendation basis without obligation only. Cost for packing, freight and insurance to be added to prices. Taxes and duties to be paid by buyer. | Cost for packing, freight and insurance to be agreed. |

### Changes
All details on scope of delivery, state-of-the-art, measurements and weight conform to our knowledge at the time of publishing. Prices and specifications are subject to change without notice.
All rights reserved.
This catalogue is effective from January 1st, 2017 on.
All previous prices become ineffective at that date.

### Notice
This catalogue is merely the translation of the original German edition. Technical prerequisites, e. g. receiving conditions for radio controlled systems, electrical voltages etc. have to be determined locally and must be made available to us in written form by customer before the order is placed. Feasibility can be confirmed in written form by us only. Otherwise we will supply as stated in this catalogue.

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