

# Tool TRENDS

Electrical



## THERE IS ELECTRICITY IN THE AIR!

The CIMCO name has always stood for quality products!

Quality products which make every day life easier for professional electricians in trade and industry and which offer a solution for all sorts of problems. To round off the

existing programme of measuring tools and devices, CIMCO is now offering two additional digital multimeters and three clip-on measuring instruments.



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W E R K Z E U G F A B R I K

## Digital Multimeter

The manual multimeter is a sturdy entry-level device for many measurement tasks. The manual measurement range selection allows measurement and measured value display with a fixed resolution. With the voltage measurement range up to 600 V, they also perform professional tasks reliably and securely.

The integrated LED torch always shines a light on a dark subject when required. Additional performance features such as temperature measurement with sensor, resistance measurement, diode and continuity test and Hold function demonstrate state-of-the-art technology in your measuring tool.

With the 2-component housing with integrated soft rubber protection, the measuring tool will also withstand tough conditions. The rubberised housing shell also makes it easy to hold. With the support bracket on the back you can place the measuring tool in a position where it is easy to read, leaving both your hands free for measuring.

### Highlights

- CAT III 600 V
- 2000 counts
- Manual range
- Non-contact voltage testing
- DC current measurement range
- Temperature measurement
- Torch function and display lighting
- 600 V high capacity fuses

### Features

- Diode test
- Acoustic continuity test
- Non-contact AC voltage tester
- Hold function
- Low-Batt display
- Sturdy housing with soft rubber protection

### Scope of delivery

- Test leads
- K-type thermo sensor
- 9 V battery
- User manual

**CIMCO article no. 11 1406**



### TECHNICAL DATA

|                               |                   |
|-------------------------------|-------------------|
| Resistance measurement range  | 0.1 Ω - 20 MΩ     |
| Temperature measurement range | -40 to +1000 °C   |
| Interfaces                    | none              |
| Voltage supply (details)      | 9 V block         |
| Weight                        | 200 g             |
| Current measurement           | DC                |
| Height                        | 150 mm            |
| Width                         | 75 mm             |
| Category                      | Manual multimeter |

|   |                  |
|---|------------------|
| Calibrated according to (without certificate) | Factory standard |
| Display                                       | digital          |
| Measurement category                          | CAT III 600 V    |
| Type of measurement                           | Average value    |
| Basic accuracy ± %                            | 0.5 %            |
| Display (counts)                              | 2000             |
| Measurement range A/DC max.                   | 10 A             |
| Measurement range A/DC min.                   | 1 μA             |
| Measurement range V/AC max.                   | 600 V            |

|                             |                |
|-----------------------------|----------------|
| Measurement range V/AC min. | 0.1 V          |
| Measurement range V/DC max. | 600 V          |
| Measurement range V/DC min. | 0.1 mV         |
| AC internal resistance      | 4.5 MΩ         |
| Measurement range A/DC      | 1 μA - 10 A    |
| DC internal resistance      | 10 MΩ          |
| Frequency range             | 45 Hz - 400 Hz |
| Voltage measurement         | AC/DC          |

# Digital Multimeter

The digital multimeter has a number of features which make the device interesting when on the job, in training or for your hobby.

With a digital display 19 mm tall, this multimeter is very easy to read. The display shows 4-digit values up to 2000 respectively (2000 counts).

With the 2-component housing with integrated soft rubber protection, the measuring tool will also withstand tough conditions. The rubberised housing shell also makes it easy to hold. With the support bracket on the back you can place the measuring tool in a position where it is easy to read, leaving both your hands free for measuring.

Depending on the measurement variable selected, the correct assignment of the measuring jacks is shown in the display. This is of great assistance to beginners to avoid operating errors.

## Highlights

- CAT III 600 V
- 2000 counts
- Measurement jack display
- Manual range
- For professional use, in household and hobby

## Features

- Standard measurement ranges V/DC, V/AC, A/DC, A/AC
- Resistance
- Diode test
- Acoustic continuity testing
- Battery test for 1.5 and 9 V batteries
- Impedance switching
- Low-Batt display
- Digit height 19 mm
- Sturdy housing with soft rubber protection

## Scope of delivery

- Test leads
- 9 V battery
- User manual

**CIMCO article no. 11 1408**



### TECHNICAL DATA

|   |                   |                             |               |                             |                |
|---|-------------------|-----------------------------|---------------|-----------------------------|----------------|
| Resistance measurement range                  | 0.1 Ω - 20 MΩ     | Display                     | digital       | Measurement range V/AC min. | 0.001 V        |
| Interfaces                                    | none              | Measurement category        | CAT III 600 V | Measurement range V/DC max. | 600 V          |
| Voltage supply (details)                      | 9 V block         | Type of measurement         | Average value | Measurement range V/DC min. | 0.1 mV         |
| Weight  | 380 g             | Basic accuracy ± %          | 0.5 %         | Measurement range A/AC      | 0.1 μA - 10 A  |
| Current measurement                           | AC/DC             | Display (counts)            | 2000          | AC internal resistance      | 10 MΩ          |
| Height  | 185 mm            | Measurement range A/AC max. | 10 A          | Measurement range A/DC      | 0.1 μA - 10 A  |
| Width   | 91 mm             | Measurement range A/AC min. | 0.1 μA        | DC internal resistance      | 10 MΩ          |
| Category                                      | Manual multimeter | Measurement range A/DC max. | 10 A          | Frequency range             | 40 Hz - 400 Hz |
| Calibrated according to (without certificate) | Factory standard  | Measurement range A/DC min. | 0.1 μA        | Voltage measurement         | AC/DC          |
|   |                   | Measurement range V/AC max. | 600 V         |                             |                |

## AC/DC mini ammeter

The ammeter combines robustness and functionality in an excellent price-performance ratio.

The ergonomic housing allows one-hand operation and is very robust thanks to its soft rubber protection. It has voltage, frequency, temperature, capacity and resistance measuring functions with automatic range selection and can also perform diode testing and acoustic continuity testing.

It is also equipped with a non-contact voltage tester (NVC). This makes it possible not to disrupt and disconnect the measuring circuit. Downtime of plants or machines is thus effectively avoided. The ammeter is a fully-fledged multimeter with many different measuring functions.

The automatic measurement range selection allows comfortable measurements and always shows the measurement values with the optimal resolution. With the extended voltage measurement range of up to 600 V, you can also carry out professional tasks reliably and securely.

### Highlights

- CAT III 600 V
- AC current measurement (AVG) up to 400 A
- Non-contact voltage tester

### Features

- Data-Hold
- Auto-Power-Off function
- Voltage, frequency, temperature, capacity and resistance measurement functions
- Diode test and acoustic continuity test
- Non-contact voltage tester (NCV)

### Scope of delivery

- 2 micro batteries (type AAA)
- Bag
- Safety test leads
- Thermal probe
- K-type measurement adapter
- User manual

**CIMCO article no. 11 1410**



### TECHNICAL DATA

|                               |                         |   |                             |                             |                |
|-------------------------------|-------------------------|---|-----------------------------|-----------------------------|----------------|
| NCV                           | 100 - 600 V/AC          | Width   | 60 mm                       | Measurement range A/AC min. | 0.01 A         |
| Resistance measurement range  | 0.1 Ω - 40 MΩ           | Category                                      | Ammeter / manual multimeter | Measurement range V/AC max. | 600 V          |
| Frequency measurement range   | 10 Hz - 10 kHz          | Calibrated according to (without certificate) | Factory standard            | Measurement range V/AC min. | 1 mV           |
| Capacity measurement range    | 1 nF - 100 μF           | Display                                       | digital                     | Measurement range V/DC max. | 600 V          |
| Temperature measurement range | -20 to +760 °C          | Measurement category                          | CAT III 600 V               | Measurement range V/DC min. | 0.1 mV         |
| Interfaces                    | none                    | Measurement type                              | Average value               | Measurement range A/AC      | 0.01 A - 400 A |
| Voltage supply (details)      | 2 micro-batteries (AAA) | Basic accuracy ± %                            | 1.2 %                       | Frequency range             | 50/60 Hz       |
| Weight                        | 180 g                   | Display (counts)                              | 4000                        | Opening area for ammeter    | 30 mm          |
| Current measurement           | AC                      | Measurement range A/AC max.                   | 400 A                       | Voltage measurement         | AC/DC          |
| Height                        | 200 mm                  |   |                             |                             |                |

# AC/DC-TrueRMS ammeter

The ultra-compact entry-level clamp ammeter combines ergonomic technology and a very good price-performance ratio.

Apart from the usual multimeter functions, the ammeter allows non-contact current measurement. Thanks to the clamp sensor, it is no longer necessary to disconnect the power circuit for the measurement. It is also ideal for measurements on cars or in solar technology, as a DC measurement function is also available.

The TrueRMS true, effective value measurement allows the precise measurement of asymmetric voltages and currents which deviate from the basic shape of the sine wave. Asymmetric voltages usually occur with output regulators such as dimmers, speed controllers, timed switching regulators, pulsed battery chargers or electronic drive controllers in model construction etc. Conventional average value measuring tools sometimes show significant deviations on such special measurement tasks.

## Highlights

- CAT II 600 V, CAT III 300 V
- AC/DC current measurement
- Multimeter functions
- TrueRMS true effective value measurement

## Features

- Measurement functions: AC/DC current (range: 2 A, 20 A, 100 A), AC/DC-voltage, resistance, capacity
- Acoustic continuity test
- Diode test
- Data-Hold
- Autorange in the voltage and resistance measurement range
- Display lighting can also be switched on
- DC zero setting function
- Auto-Power-Off function
- Low-Batt display
- One-hand operation possible
- Integrated non-contact AC voltage tester (NCV)

## Scope of delivery

- 2 safety test leads
- Batteries
- Bag
- User manual



## CIMCO article no. 11 1411

|                       |                              |                             |   |                           |                             |             |
|-----------------------|------------------------------|-----------------------------|---|---------------------------|-----------------------------|-------------|
| <b>TECHNICAL DATA</b> | NCV                          | 100 - 1000 V/AC             | Calibrated according to (without certificate) | Factory standard          | Measurement range A/DC min. | 0.001 A     |
|                       | Resistance measurement range | 0.1 Ω - 20 MΩ               | Display                                       | digital                   | Measurement range V/AC max. | 600 V       |
|                       | Capacity measurement range   | 0.001 nF - 20 mF            | Measurement category C                        | AT II 600 V/CAT III 300 V | Measurement range V/AC min. | 0.001 V     |
|                       | Voltage supply (details)     | 2 micro-batteries (AAA)     | Measurement type                              | True RMS                  | Measurement range V/DC max. | 600 V       |
|                       | Weight                       | 170 g                       | Basic accuracy ± %                            | 0.7 %                     | Measurement range V/DC min. | 0.1 mV      |
|                       | Current measurement          | AC/DC                       | Display (counts)                              | 2000                      | AC internal resistance      | 10 MΩ       |
|                       | Height                       | 175 mm                      | Measurement range A/AC max.                   | 100 A                     | DC internal resistance      | 10 MΩ       |
|                       | Width                        | 60 mm                       | Measurement range A/AC min.                   | 0.001 A                   | Frequency range             | 45 - 400 Hz |
|                       | Category                     | Manual multimeter / ammeter | Measurement range A/DC max.                   | 100 A                     | Opening area for ammeter    | 17 mm       |
|                       |                              |                             |   |                           | Voltage measurement         | AC/DC       |

## AC/DC mini ammeter

For quick and easy measurement of currents up to 400 A. Perfectly suited for servicing machines, in switch cabinets and also for measuring high currents in car and commercial electrics.

The device has voltage, frequency, temperature, capacity and resistance measurement functions with automatic range selection as well as a diode test and acoustic continuity tester. In addition to that, the device is equipped with a non-contact voltage tester (NCV).

The ammeter allows non-contact current measurement, without having to disrupt and disconnect the measurement circuit as would be the case with the conventional measuring method.

### Highlights

- CAT III 600 V
- AC/DC current measurement (AVG) up to 400 A
- Non-contact voltage tester

### Features

- Data-Hold
- Auto-Power-Off function
- Voltage, frequency, temperature, capacity and resistance measurement functions
- Diode test and acoustic continuity test
- Non-contact voltage tester (NCV)
- ZERO function

### Scope of delivery

- 2 micro batteries (type AAA)
- Bag
- Safety test leads
- Thermal probe
- K-type measurement adapter
- User manual

**CIMCO article no. 11 1412**



### TECHNICAL DATA

|                               |                         |
|-------------------------------|-------------------------|
| NCV                           | 100 - 600 V/AC          |
| Resistance measurement range  | 0.1 Ω - 40 MΩ           |
| Frequency measurement range   | 10 Hz - 10 kHz          |
| Capacity measurement range    | 1 nF - 100 μF           |
| Temperature measurement range | -20 to +760 °C          |
| Interfaces                    | none                    |
| Voltage supply (details)      | 2 micro-batteries (AAA) |
| Weight                        | 180 g                   |
| Current measurement           | AC/DC                   |
| Height                        | 200 mm                  |
| Width                         | 60 mm                   |

|   |                             |
|---|-----------------------------|
| Category                                      | Ammeter / manual multimeter |
| Calibrated according to (without certificate) | Factory standard            |
| Display                                       | digital                     |
| Measurement category                          | CAT III 600 V               |
| Measurement type                              | Average value               |
| Basic accuracy ± %                            | 1.2 %                       |
| Display (counts)                              | 4000                        |
| Measurement range A/AC max.                   | 400 A                       |
| Measurement range A/AC min.                   | 0.01 A                      |
| Measurement range A/DC max.                   | 400 A                       |
| Measurement range A/DC min.                   | 0.01 A                      |

|                             |                |
|-----------------------------|----------------|
| Measurement range V/AC max. | 600 V          |
| Measurement range V/AC min. | 1 mV           |
| Measurement range V/DC max. | 600 V          |
| Measurement range V/DC min. | 0.1 mV         |
| Measurement range A/AC      | 0.01 A - 400 A |
| AC internal resistance      | 10 MΩ          |
| Measurement range A/DC      | 0.01 A - 400 A |
| DC internal resistance      | 10 MΩ          |
| Frequency range             | 50/60 Hz       |
| Opening area for ammeter    | 30 mm          |
| Voltage measurement         | AC/DC          |

## EXPERT TIP

### Highlights simply explained

#### Display (counts)

Shows the highest possible number of digits on the display (including 0, example 6000 counts = usual display range 0 to 5999). The larger the value is, the greater the resolution of the display value can be. The measurement range also goes further without having to switch over to the next higher or lower measurement range. Example 2000 counts vs. 4000 counts. Measurement of 230.3 volts -> display with 2000 counts = 230 V, display with 4000 counts = 230.3 V

#### TrueRMS true effective value measurement

The true effective value measurement TrueRMS allows correct measurement of asymmetric voltages and currents which deviate from the basic shape of the sine wave. Such asymmetric voltages usually occur with output regulators such as dimmers, speed controllers, timed switching regulators, pulsed battery chargers or electronic drive controllers in model construction etc. Conventional average value measuring tools sometimes show significant deviations on such special measurement tasks.

#### Auto-Range

The Auto-Range function always sets the best possible range during the measurement to show the optimal resolution of the display. The user can concentrate on the measurement which will significantly simplify the handling.

## AC/DC voltage tester up to 690 V with LED and LCD display

### Highlights

- Overvoltage category CAT III / IV
- Measurement category: CAT IV 600 V, CAT III 1000 V
- Bright LED display

### Features

- Impact-resistant modern housing
- Display: 1 LCD 3 digits, 12 LEDs (+12 V, -12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V)
- Automatic polarity detection
- Continuity test with visual and acoustic display
- Protection class IP 64
- Power consumption < 3.5 mA
- Single-pole test > 90 – 690 V AC
- Continuity test
- Frequency range AC 40 - 400 Hz
- Voltage range 12 - 690 V AC/DC
- Quick single lever testing at earthed contact sockets
- Integrated torch
- ELV, rotating field L/R
- Tested in accordance with EN 61010, EN 61243-3:2010
- TÜV / GS certified

### Scope of delivery

- 2 Batteries 1.5 V AAA, LR03
- Test probe protection

**CIMCO article no. 11 1429**



# AC/DC voltage tester up to 690 V with LED display

## Highlights

- Overvoltage category CAT III / IV
- Measurement category: CAT IV 600 V, CAT III 1000 V
- Bright LED display

## Features

- Impact-resistant modern housing
- Display: 12 LEDs  
(+12 V, -12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V)
- Automatic polarity detection
- Continuity test with visual and acoustic display
- Protection class IP 64
- Power consumption < 3.5 mA
- Single-pole test > 90 – 690 V AC
- Continuity test
- Frequency range AC 40 - 400 Hz
- Voltage range 12 - 690 V AC/DC
- Quick single lever testing at earthed contact sockets
- Integrated torch
- ELV, rotating field L/R
- Tested in accordance with EN 61010, EN 61243-3:2010
- TÜV / GS certified

## Scope of delivery

- 2 Batteries 1.5 V AAA, LR03
- Test probe protection

**CIMCO article no. 11 1432**



## EXPERT TIP

### What you should consider before making a purchase

To select the right measuring tool, you need to take the highest category which may be used into consideration. Measuring tools are divided into various measurement categories in accordance with their applications and affiliation. The CAT specified is always the highest permissible measurement voltage against ground potential:

#### Measuring tools in class CAT I

Are used to make measurements on devices which are either battery-operated or have an integrated transformer for galvanic supply isolation. Example: Repairs to torches, transistor radios, stereo systems, conventional 12/24 V on-board car electronics, etc.

#### Measuring tools in class CAT II

Are used for making measurements on devices which are connected to the mains via a mains plug. Example: Repairs to household electrical appliances, electrical tools, etc.

#### Measuring tools in class CAT III

Are used for making measurements in house installations and for permanently installed devices. Example: Distributors, sockets.

#### Measuring tools in class CAT IV

Are used for making measurements at the source of the low voltage installation and outdoors. Example: Measurements on main fuses, solar panel installations, electric cars.



## AC/DC voltage tester to 690 V

### Highlights

- Overvoltage category CAT III / IV
- Measurement category: CAT III 600 V, CAT IV 300 V
- Bright LED display

### Features

- Impact-resistant modern housing
- Display: 11 LEDs  
(+12 V, -12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V)
- Automatic polarity detection
- Continuity/diode testing with visual and acoustic display
- Protection class: IP 54
- Power consumption < 3.5 mA
- Single-pole test > 100 – 690 V AC
- Frequency range AC 0 - 65 Hz
- Voltage range 12 - 690 V AC/DC
- Quick single lever testing at earthed contact sockets
- ELV
- Tested in accordance with EN 61010, EN 61243-3:2010
- TÜV / GS certified

### Scope of delivery

- 2 Batteries 1.5 V AAA, LR03
- Test probe protection

**CIMCO article no. 11 1434**



## AC/DC voltage tester to 690 V

### Highlights

- Measurement category: CAT III 600 V, CAT IV 300 V
- Bright LED display

### Features

- Impact-resistant modern housing
- Display: 8 LEDs  
(+12 V, -12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V)
- Automatic polarity detection
- Protection class IP 64
- Power consumption < 3.5 mA at 690 V AC L-PE
- Frequency range: AC 0 - 65 Hz
- Nominal voltages: 12 - 690 V AC/DC
- Quick single lever testing at earthed contact sockets
- Integrated torch
- Tested in accordance with EN 61243-3:2010, IEC 61010-1
- CE-certified
- Works without batteries

### Scope of delivery

- Test probe protection

**CIMCO article no. 11 1436**



## Digital multimeter

### Highlights

- 3 -digit digital display with 4000 digits
- Voltage, current and resistance measurement

### Features

- Visual (LED) and acoustic continuity test
- Temperature, capacity and frequency measurement
- Automatic measurement range selection
- Shock- and impact-proof due to protective sleeve included as standard
- Device complies with the directive (2002/96/EC) WEEE
- Safety according to DIN VDE 0411, EN 61010, IEC 61010, CAT III 600 V



**CIMCO article no. 11 1404**

## Non-contact voltage tester Voltfix and Magno-Voltfix

### Highlights

- Measurement category CAT IV 1000 V
- Reliably displays voltages from 12 V AC
- Slim, insulated measuring sensor suitable for EU, UK and US electrical sockets

### Features

- Two selectable voltage ranges/sensitivity levels
- The white tip provides a bright, all-round signal display
- Suitable for aircraft information systems up to 400 Hz
- Acoustic display via integrated tone generator
- Electric fields are displayed in red
- Automatically time-controlled switch-off
- On/Off switch with visual display
- Splash-water-protected, robust housing
- Battery monitoring with visual warning
- Integrated torch



### Voltfix voltage tester

**CIMCO article no. 11 1460**

### Magno-Voltfix voltage tester (incl. magnetic field detection)

**CIMCO article no. 11 1465**



## Digital laser rangefinder

### Highlights

- Measurement range (typically) from 0.05 - 20 m
- Measurement accuracy (typically, standard deviation) from  $\pm 2$  mm, plus a value of 0.05 mm/m

### Features

- For use indoors
- Simple, intuitive operation
- Smallest display unit 1 mm
- Laser class 2
- Laser type wave length 620 - 670 nm, max. output power 1 mW
- Laser switches off automatically after 20 seconds
- Device switches off automatically after 5 minutes
- More than 5000 individual measurements per battery service life
- Operating temperature  $-10 \sim 40^{\circ}\text{C}$
- Storage temperature  $-20 \sim 60^{\circ}\text{C}$
- 2 x 1.5 V AAA batteries included in the scope of delivery



**CIMCO article no. 21 1562**

## Digital tape measure

### Highlights

- Equipped with the newest laser technology
- Precise measurement results in the shortest possible time
- Accuracy: 1.5 mm per 70 m

### Features

- Simple, intuitive operation
- Max. distance indoors up to approx. 70 m
- Max. distance outdoors up to approx. 10 m
- Laser class: II
- The shortest distance to the target with dynamic (continuous) measurement
- Backlit LCD display
- Range, surface and volume measurement
- Indirect measurement using Pythagoras
- Selection of three reference points
- Extended memory function
- 1/4" thread for attachment to a tripod
- Housing made of shock-resistant plastic
- Battery: 9 V block included in scope of delivery
- Compliant with CE and RoHS



**CIMCO article no. 21 1560**

## Test probes set, 4-part

### Highlights

- Measurement circuit category CAT III / 1000 volts
- Current carrying capacity up to 16 A

### Features

- Each one 2-piece set grey / red and grey / black
- With 4 mm safety technology
- With 2 mm tips made of stainless steel
- According to DIN VDE 0411 / EN 61010 / IEC 61010
- Short design
- Length 102 mm



**CIMCO article no. 11 1474**

## Crocodile clip set, 2-part

### Highlights

- Measurement circuit category CAT III / 1000 volts
- Current carrying capacity up to 16 A

### Features

- With 4 mm safety technology
- According to DIN VDE 0411 / EN 61010 / IEC 61010
- Opening approx. 21 mm
- In grey / red and grey / black



**CIMCO article no. 11 1480**

## Test lead set, 6 pieces

### Contents

- Test lead 1 m, red
- Test lead 1 m, black
- Crocodile clip, grey / red
- Crocodile clip, grey / black
- Test probe, grey / red
- Test probe, grey / black



**CIMCO article no. 11 1485**



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