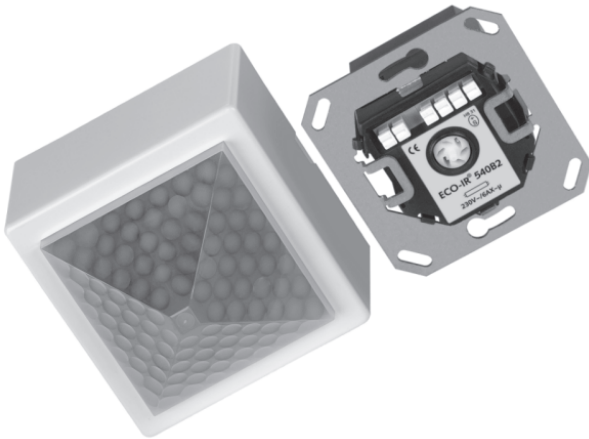
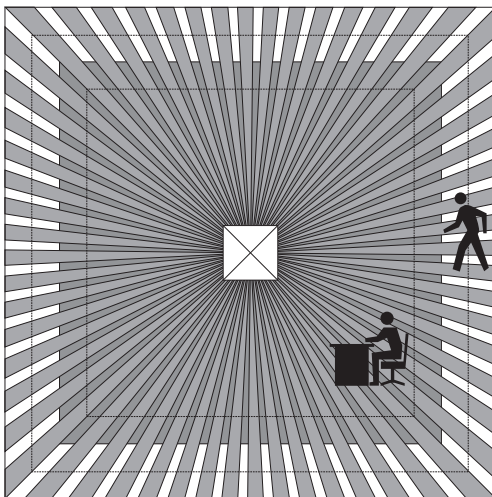
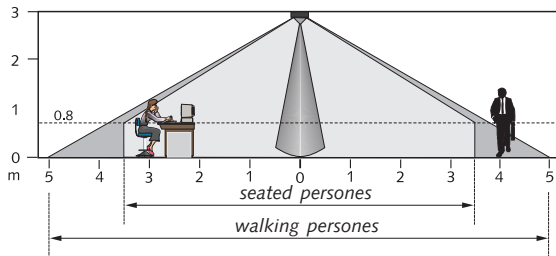


## Presence Detector ECO-IR 360A



### Detection range (Mounting height 3,0m)



#### Seated Persons:

The values given refer to the restricted detection range for movements taking place at table height, i.e. approx. 0.80m above the floor. From a mounting height of >3.5m, the sensitivity of the detector is limited, and more distinct movements are required for detection.

#### Walking Persons:

The above figure shows the detection range in side (top) and top (bottom) view. Note that the ranges in which seated persons and walking persons are detected differ in their expansion.

### Product features ECO-IR 360A

- ◆ Presence detector with a 360° detection range for ceiling mounting
- ◆ Automatic lighting and HVAC control
- ◆ Relay for light-switching
- ◆ Potential-free relay for HVAC-switching
- ◆ True daylight measurement
- ◆ Adaptive switch-off delay for lighting
- ◆ Continuously-adjustable switch-off delay and brightness-threshold
- ◆ Mechanical safety lock

### «Lighting» control

The switching behavior is controlled both by occupancy and daylight intensity. The contact is closed by darkness **and** presence of people and opened by brightness **or** absence of people. The minimum switch-off delay «Min. Time Minutes» and the brightness-threshold «Lux» are adjustable. The switch-off delay adapts automatically to the users' behavior, between the preset minimum and the maximum of 15 minutes (adaptive time delay). The switch-off delay time will not be changed if it is set to 2 minutes.



**Note:** The ECO-IR is designed for use in combination with fluorescent lamps (FL / PL). The use in combination with incandescent or halogen lamps is not possible.

### «HVAC» Control

HVAC systems are controlled by a potential-free relay. The switching behavior is governed by occupancy but not by daylight intensity. The contact is closed by the presence of people. The switch-off delay is continuously adjustable between 10 and 60 minutes. Any movement restarts the counter.

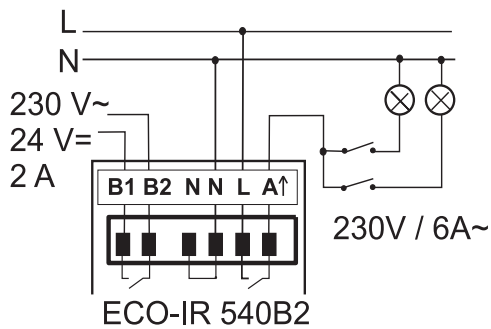
### Mounting / Detection range

The recommended mounting height is 2.5m - 3.5m.

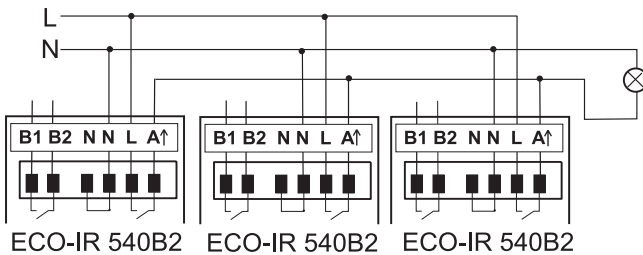
M.height	seated persons	walking persons
2,0m	4,5m x 4,5m	6,0m x 6,0m ± 0.5m
2,5m	6,0m x 6,0m	8,0m x 8,0m ± 0.5m
3,0m	7,0m x 7,0m	9,0m x 9,0m ± 0.5m
3,5m	8,0m x 8,0m	10m x 10m ± 1m
4,0m	- - - - -	11m x 11m ± 1m

The sensitivity of the detector decreases with increasing mounting height. From a mounting height of 4m walking movements are required for detection, and the detection ranges of multiple detectors should overlap in their fringe zones. Maximum range approx. 15 m.

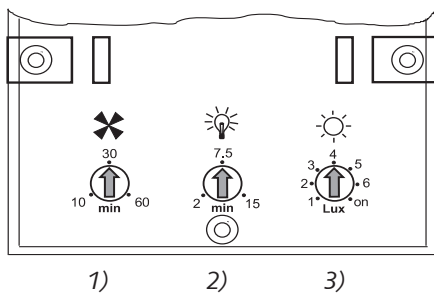
**Schematic Wiring Diagram for Single Unit Operation**  
Single detector with additional double switch



**Schematic Wiring Diagram for Parallel Circuit Operation**



**Sensor Module - Rear Side**



**Lighting control**

The ECO-IR 360A is normally used as an "automatic switch". By connecting a conventional switch in series with the ECO-IR 360A the possibility of manually switching off the lighting is maintained. To switch two rows of lights a double switch may be used.

A direct manual ON-switch is only recommended in case the automatic system has to be bypassed deliberately. In this case a switch is used in parallel to the detector.



**Note:** The detector's power supply must not be interrupted.

**Parallel Circuit Operation**

To cover large rooms or rooms with many corners, e.g. large offices, corridors, underground car parks etc., several detectors may be connected in parallel. However, the limit for the total load remains the same as for a single detector. Brightness threshold and switch-off delay time must be set for each detector individually.



**Note:** All ECO-IR 360A presence detectors must be connected to the same phase.

**Settings on the ECO-IR 360A**

(see illustration on the left)

- 1) switch-off delay for HVAC (minutes)
- 2) switch-off delay for lighting (minutes)
- 3) brightness threshold (Lux)

**Accessories**

A suitable frame for surface mounting is also available. For installation in suspended ceilings, the installation set QuickFix allows an invisible ceiling mounting.

**Technical Specifications for Presence Detector ECO-IR 360A**

Sensor module	ECO-IR 360A
Detection range:	horizontal 360° vertical 120°
Mounting height (Mh)	approx. 2,0 - 3,5m
Maximum range	8 x 8m (Mh 2,5m) 10x10m (Mh 3,5m)
Ambient temperature	0° - 50°C
Switch-off delay time	2min. - 15min.
True daylight measurement Light measurement deactivated	approx. 50 - 1600Lux "on"
Power module	ECO-IR 540B2
Mains voltage	230V ± 10%, 50Hz
Relay output A	"Lighting"
Nominal voltage	230V ± 10%
Maximum switching capacity	1400VA
Max. number of electronic ballasts	12x (1x58W); 18x(1x36W) 06x (2x 58W); 09x(2x36W) 18x (< 36W)
A relay or contactor must be connected in case of more powerful devices.	

Relay output B	"HVAC"
Contact potential-free Protection class II	24V=2A μ, 230V~ 2A μ EN 60730-1
Maximum switching capacity	100W / 460VA
Switch off delay-time	10min. – 60min.
Depth Diameter	35mm Ø 55mm
Mounting plate	70 x 70mm
Concealed housing	Ø 58mm (NIS, PMI)
terminals without screws	max. 1.5mm <sup>2</sup>
Degree of protection	IP 40
Safety standards	SEV
Article numbers	
ECO-IR 360A complete	202 0 000
Surface Frame for ECO-IR 360A	907 0 512

This device complies with the protection regulations of the EMC directive 89/336/EEC and NSR EWG 73/23.