

PIR movement and presence detectors 10 A



Hotel room energy management systems



Offices, swimming baths and schools



Staircase light control



Lighting control in corridors (for hotels, offices and hospitals)



18
SERIES

PIR movement detectors for internal or external installations - wall mounting

Type 18.01

- Internal installation
- Surface mounting

Type 18.11

- External installation (IP54)
- Surface mounting

Type 18.A1

- External mounting (IP55)
- Terminal for PE connection
- Push-in terminals

- Output contact connected to supply live
- Small size
- Adjustable ambient light intervention threshold
- Adjustable Light ON Time
- Universal mounting position - permits the selection of any area for survey
- Wide angle of survey

18.01/18.11
Screw terminal



18.A1
Push-in terminal



NOTE: with 110...125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 500 W instead of 1000 W)

For outline drawings see page 18

Contact specification

| | | | | |
|---|------------|----------------------|----------------------|----------------------|
| Number of contacts | | 1 NO (SPST-NO) | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) |
| Rated voltage/ Maximum switching voltage | V AC | 230/230 | 230/230 | 230/230 |
| Rated load AC1 | VA | 2300 | 2300 | 2300 |
| Rated load AC15 | (230 V) VA | 450 | 450 | 450 |
| Nominal lamp rating 230 V: | | | | |
| incandescent/halogen W | | 1000 | 1000 | 1000 |
| fluorescent lamp with electronic ballast W | | 500 | 500 | 500 |
| fluorescent lamp with electromagnetic ballast W | | 350 | 350 | 350 |
| CFL W | | 300 | 300 | 300 |
| LED 230 V W | | 300 | 300 | 300 |
| halogen or LV LED with electronic ballast W | | 300 | 300 | 300 |
| halogen or LV LED with electromagnetic ballast W | | 500 | 500 | 500 |
| Standard contact material | | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ |

Supply specification

| | | | | |
|--------------------|-----------------|-----------|-----------|-----------|
| Coil specification | V AC (50/60 Hz) | 120...230 | 120...230 | 110...230 |
| | DC | — | — | — |
| Rated power AC/DC | VA (50 Hz)/W | 2.5/— | 2.5/— | 2/0.8 |
| Operating range | V AC (50/60 Hz) | 96...253 | 96...253 | 96...253 |
| | DC | — | — | — |

Technical data

| | | | | |
|--------------------------------------|--------|-----------------------|-----------------------|-----------------------|
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ | 100 · 10 ³ |
| Ambient light intervention threshold | lx | 5...350 | 5...350 | 5...1000 |
| Light ON time after last detection | | 10 s...12 min | 10 s...12 min | 10 s...20 min |
| Sensing area | | See diagram page 15 | See diagram page 15 | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 | -30...+50 | -30...+50 |
| Protection category | | IP 40 | IP 54 | IP 55 |

Approvals (according to type)




PIR movement detectors for internal installations - ceiling mount
Type 18.21

- Surface mounting

Type 18.31

- Recess mounting

Type 18.31-0031

- High ceiling type (6 meter max.)
- Surface or recess mounting
- Output contact connected to supply live
- Small size
- Adjustable ambient light intervention threshold
- Adjustable Light ON Time
- Wide angle of survey

18.21/18.31/18.31...0031

Screw terminal



NOTE: with 110...125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 500 W instead of 1000 W)

For outline drawings see page 18

Contact specification

| | | 18.21 | 18.31 | 18.31-0031 |
|--|------------|----------------------|----------------------|----------------------|
| Number of contacts | | 1 NO (SPST-NO) | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) |
| Rated voltage/Maximum switching voltage | V AC | 230/230 | 230/230 | 230/230 |
| Rated load AC1 | VA | 2300 | 2300 | 2300 |
| Rated load AC15 | (230 V) VA | 450 | 450 | 450 |
| Nominal lamp rating 230 V: | | | | |
| incandescent/halogen W | | 1000 | 1000 | 1000 |
| fluorescent lamp with electronic ballast W | | 500 | 500 | 500 |
| fluorescent lamp with electromagnetic ballast W | | 350 | 350 | 350 |
| CFL W | | 300 | 300 | 300 |
| LED 230 V W | | 300 | 300 | 300 |
| halogen or LV LED with electronic ballast W | | 300 | 300 | 300 |
| halogen or LV LED with electromagnetic ballast W | | 500 | 500 | 500 |

| | | | | |
|---------------------------|--|--------------------|--------------------|--------------------|
| Standard contact material | | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ |
|---------------------------|--|--------------------|--------------------|--------------------|

Supply specification

| | | | | |
|--------------------|-----------------|-----------|-----------|-----------|
| Coil specification | V AC (50/60 Hz) | 120...230 | 120...230 | 120...230 |
| | DC | — | — | — |
| Rated power AC/DC | VA (50 Hz)/W | 2/1 | 2/1 | 2/1 |
| Operating range | V AC (50/60 Hz) | 96...253 | 96...253 | 96...253 |
| | DC | — | — | — |

Technical data

| | | | | |
|--------------------------------------|--------|-----------------------|-----------------------|-----------------------|
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ | 100 · 10 ³ |
| Ambient light intervention threshold | lx | 5...350 | 5...350 | 5...350 |
| Light ON time after last detection | | 10 s...12 min | 10 s...12 min | 30 s...35 min |
| Sensing area | | See diagram page 15 | See diagram page 15 | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 | -10...+50 | -10...+50 |
| Protection category | | IP 40 | IP 40 | IP 40 |

Approvals (according to type)


PIR movement detectors for internal installations, with volt-free output contact

Type 18.21-0300

- Surface mounting

Type 18.31-0300

- Recess mounting

- Applications where interface to PLC or BMS is required
- Ceiling mounting
- Small size
- Adjustable ambient light intervention threshold
- Adjustable Light ON Time
- Wide angle of survey

18.21...0300/18.31...0300
Screw terminal



NOTE: with 110...125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 500 W instead of 1000 W)

For outline drawings see page 17

18.21-0300



- 1 NO 10 A
- Surface mounting

18.31-0300



- 1 NO 10 A
- Recess mounting

Contact specification

| | | | |
|---|------------|----------------------|----------------------|
| Number of contacts | | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) |
| Rated voltage/ Maximum switching voltage | V AC | 250/400 | 250/400 |
| Rated load AC1 | VA | 2500 | 2500 |
| Rated load AC15 | (230 V) VA | 450 | 450 |
| Nominal lamp rating 230 V: | | | |
| incandescent/halogen W | | 1000 | 1000 |
| fluorescent lamp with electronic ballast W | | 500 | 500 |
| fluorescent lamp with electromagnetic ballast W | | 350 | 350 |
| CFL W | | 300 | 300 |
| LED 230 V W | | 300 | 300 |
| halogen or LV LED with electronic ballast W | | 300 | 300 |
| halogen or LV LED with electromagnetic ballast W | | 500 | 500 |
| Standard contact material | | AgSnO ₂ | AgSnO ₂ |

Supply specification

| | | | |
|--------------------|--------------------|-------------|-------------|
| Coil specification | V AC (50/60 Hz) | 120...230 | 120...230 |
| | V AC (50/60 Hz)/DC | 24 | 24 |
| Rated power AC/DC | VA (50 Hz)/W | 2/1 | 2/1 |
| Operating range | V AC (50/60 Hz) | 96...253 | 96...253 |
| | V AC (50/60 Hz)/DC | 19.2...26.4 | 19.2...26.4 |

Technical data

| | | | |
|--------------------------------------|--------|-----------------------|-----------------------|
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ |
| Ambient light intervention threshold | lx | 5...350 | 5...350 |
| Light ON time after last detection | | 10 s...12 min | 10 s...12 min |
| Sensing area | | See diagram page 15 | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 | -10...+50 |
| Protection category | | IP 40 | IP 40 |

Approvals (according to type)



**Movement and presence detectors with
Push-in terminals
For internal installation****Type 18.51**

- Standard version
- Volt-free output contact

Type 18.51-0040

- Possibility to connect external push-button to force the output state
- Dynamic light compensation
- Output contact connected to supply live

Type 18.51-B300

- Programmable via Bluetooth LE (Low Energy) using Android and iOS smartphones
- Extensive sensing area up to 64 m²
- Two sensing areas:
"presence" suitable for zones of low activity, and "movement" suitable for transit areas or zones of high activity
- Modern design
- Quick installation thanks to push-in terminals
- 1 NO contact 10 A, with "zero crossing" switching
- Wall mounting compatible with 60 mm box and 2 or 3 module box
- Double terminals for easy "looping" in and out

18.51/18.51...0040/18.51...B300

Push-in terminal



NOTE: with 110...125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 500 W instead of 1000 W)

For outline drawings see page 17

Contact specification

| Contact specification | | 18.51 | 18.51...0040 | 18.51...B300 |
|---|------------|----------------------|----------------------|----------------------|
| Number of contacts | | 1 NO (SPST-NO) | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) |
| Rated voltage/ Maximum switching voltage | V AC | 250/400 | 230/230 | 230/230 |
| Rated load AC1 | VA | 2500 | 2300 | 2300 |
| Rated load AC15 | (230 V) VA | 450 | 450 | 450 |
| Nominal lamp rating 230 V: | | | | |
| incandescent/halogen W | | 1000 | 1000 | 1000 |
| fluorescent lamp with electronic ballast W | | 500 | 500 | 500 |
| fluorescent lamp with electromagnetic ballast W | | 350 | 350 | 350 |
| CFL W | | 300 | 300 | 300 |
| LED 230 V W | | 300 | 300 | 300 |
| halogen or LV LED with electronic ballast W | | 300 | 300 | 300 |
| halogen or LV LED with electromagnetic ballast W | | 500 | 500 | 500 |
| Standard contact material | | AgSnO ₂ | AgSnO ₂ | AgSnO ₂ |

Supply specification

| | | | | |
|--------------------|-----------------|-----------|-----------|-----------|
| Coil specification | V AC (50/60 Hz) | 110...230 | 110...230 | 110...230 |
| Rated power | VA (50 Hz)/W | 1.5/1 | 1.5/1 | 1.5/1 |
| Operating range | V AC (50/60 Hz) | 96...253 | 96...253 | 96...253 |

Technical data

| | | | | |
|--------------------------------------|--------|-----------------------|-----------------------|-----------------------|
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ | 100 · 10 ³ |
| Ambient light intervention threshold | lx | 1...500 | 1...500 | 4...1000 |
| Light ON time after last detection | | 12 s...35 min | 12 s...35 min | 12 s...25 min |
| Sensing area | | See diagram page 15 | See diagram page 15 | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 | -10...+50 | -10...+50 |
| Protection category | | IP 40 | IP 40 | IP 40 |

Approvals (according to type)**18.51**

- 1 NO 10 A (volt-free)
- Sensing area 360°

NEW 18.51...0040

- 1 NO 10 A (connected to supply live)
- Sensing area 360°
- External push-button connection
- Dynamic Light Compensation

NEW 18.51...B300**Bluetooth™**

- 1 NO 10 A (volt-free)
- Sensing area 360°

Movement and presence detectors with Push-in terminals. For internal installation.

Type 18.5D with DALI interface

Three selectable functions:

- Daylight-linked constant light level control
- ON/OFF control with early warning
- ON/OFF control with early warning + courtesy light level

Type 18.4K and 18.5K with KNX interface

- 5 outputs (datapoint) for load control (Lighting, HVAC etc.)
- Adjustment of ambient light threshold, and PIR sensitivity
- 1 output (datapoint) – master/slave detection
- Selectable function to inhibit ambient light threshold control
- Reporting of light level and movement status (for security purposes, etc.)
- Detection of movement direction (type 18.4K)
- Internal ceiling mounting
- Suitable for ETS 4 (or latest versions)





18.5D
Push-in terminal



18.4K/18.5K
KNX terminal



For outline drawings see page 17

| Supply specification | | | | |
|--------------------------------------|-----------------|---|---|---|
| Coil specification | V AC (50/60 Hz) | 110...230 | — | — |
| Rated power | VA (50 Hz)/W | 1.5/1 | — | — |
| Operating range | V AC (50/60 Hz) | 96...253 | — | — |
| Supply specification | | | | |
| Type of BUS | | — | KNX | KNX |
| Supply voltage | V DC | — | 30 | 30 |
| Rated consumption | mA | — | 10 | 10 |
| Technical data | | | | |
| Ambient light intervention threshold | lx | 10...800 | 1...1500 | 1...1500 |
| Light ON time after last detection | | 10 s...35 min | 0.1 s...18 h | 0.1 s...18 h |
| Sensing area | | See diagram page 15, 16 | See diagram page 15, 16 | See diagram page 15, 16 |
| Ambient temperature range | °C | -10...+50 | -5...+45 | -5...+45 |
| Protection category | | IP 40 | IP 40 | IP 40 |
| Approvals (according to type) | |  |  |   |

NEW 18.5D



DALI

DALI



- Applications: offices, schools, zones of low activity
- Suitable for direct control of up to 8 DALI lighting ballasts
- Extensive sensing area up to 64 m²
- Two sensing areas: "presence" suitable for zones of low activity, and "movement" suitable for transit areas or zones of high activity

NEW 18.4K.9.030.0001



KNX

- Applications: hotel and offices corridors, transit areas
- Sensing area 30 meters length and 4 meters width
- Two detection areas: right and left
- Dynamic light regulation
- Logic gates
- Up to 5 outputs

NEW 18.5K.9.030.0001



KNX

- Applications: offices, schools, zones of low activity
- Extensive sensing area up to 64 m²
- Dynamic light regulation
- Logic gates
- Up to 5 outputs

Movement detectors with Push-in terminals
For internal installation - with volt-free output contact
Type 18.41

- Corridor (ceiling) installation

Type 18.61

- Wall mount installation

- Extensive sensing area up to 120 m²
- Modern design
- Quick installation thanks to push-in terminals
- 1 NO contact 10 A, with "zero crossing" switching
- Wall mounting compatible with 60 mm box and 2 or 3 module box
- Double terminals for easy "looping" in and out

18.41/18.61

Push-in terminal



NOTE: with 110...125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 500 W instead of 1000 W)

For outline drawings see page 17

Contact specification

| | | 18.41 | 18.61 |
|---|------|----------------------|----------------------|
| Number of contacts | | 1 NO (SPST-NO) | 1 NO (SPST-NO) |
| Rated current/Maximum peak current | A | 10/20 (100 A - 5 ms) | 10/20 (100 A - 5 ms) |
| Rated voltage/ Maximum switching voltage | V AC | 250/400 | 250/400 |
| Rated load AC1 | VA | 2500 | 2500 |
| Rated load AC15 | VA | 450 | 450 |
| Nominal lamp rating 230 V: | | | |
| incandescent/halogen W | | 1000 | 1000 |
| fluorescent lamp with electronic ballast W | | 500 | 500 |
| fluorescent lamp with electromagnetic ballast W | | 350 | 350 |
| CFL W | | 300 | 300 |
| LED 230 V W | | 300 | 300 |
| halogen or LV LED with electronic ballast W | | 300 | 300 |
| halogen or LV LED with electromagnetic ballast W | | 500 | 500 |
| Standard contact material | | AgSnO ₂ | AgSnO ₂ |

Supply specification

| | | | |
|--------------------|-----------------|-----------|-----------|
| Coil specification | V AC (50/60 Hz) | 110...230 | 110...230 |
| Rated power | VA (50 Hz)/W | 1.5/1 | 1.5/1 |
| Operating range | V AC (50/60 Hz) | 96...253 | 96...253 |

Technical data

| | | | |
|--------------------------------------|--------|-----------------------|-----------------------|
| Electrical life at rated load AC1 | cycles | 100 · 10 ³ | 100 · 10 ³ |
| Ambient light intervention threshold | lx | 1...500 | 1...500 |
| Light ON time after last detection | | 12 s...35 min | 12 s...35 min |
| Sensing area | | See diagram page 15 | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 | -10...+50 |
| Protection category | | IP 40 | IP 40 |

Approvals (according to type)


Movement detectors for internal installation

Type 18.91

- Wall mount installation
- External push-button connection
- Modern design
- 1 output with "zero crossing" switching
- Wall mounting compatible with 3 module housing, complete with adaptor for following frames:
 - Ave S44
 - BTicino series Axolute
 - BTicino series Living
 - BTicino series Living Light
 - BTicino series Living Light Air
 - BTicino series Matix
 - Gewiss series Chorus
 - Gewiss series System
 - Simon Urmet Nea
 - Vimar series Eikon
 - Vimar series Idea
 - Vimar series Arkè
 - Vimar Plana
- White or black versions

18.91

Screw terminal



For outline drawings see page 18

Output data

| | | |
|---|------|-----|
| Rated voltage | V AC | 230 |
| Power max. | W | 200 |
| Power min. | W | 3 |
| Nominal lamp rating 230 V: | | |
| incandescent/halogen W | | 200 |
| toroidal electromagnetic transformers for LV halogen W | | 200 |
| E-core electromagnetic transformers for LV halogen W | | 200 |
| electronic transformers (ballasts) for LV halogen W | | 200 |
| compact fluorescent (CFL) W | | 200 |
| 230 V LED W | | 200 |
| electronic transformers for LV LED W | | 200 |

Supply specification

| | | |
|-----------------------------------|-----------------|---------------------------|
| Nominal voltage (U _N) | V AC (50/60 Hz) | 230 |
| Rated power | VA(50Hz)/W | 14/0.5 |
| Operating range | | (0.8...1.1)U _N |

Technical data

| | | |
|--------------------------------------|----|---------------------------------|
| Ambient light intervention threshold | lx | 5...500 (black)/6...600 (white) |
| Light ON time after last detection | | 10 s...20 min |
| Sensing area | | See diagram page 15 |
| Ambient temperature range | °C | -10...+50 |
| Protection category | | IP 20 |

Approvals (according to type)

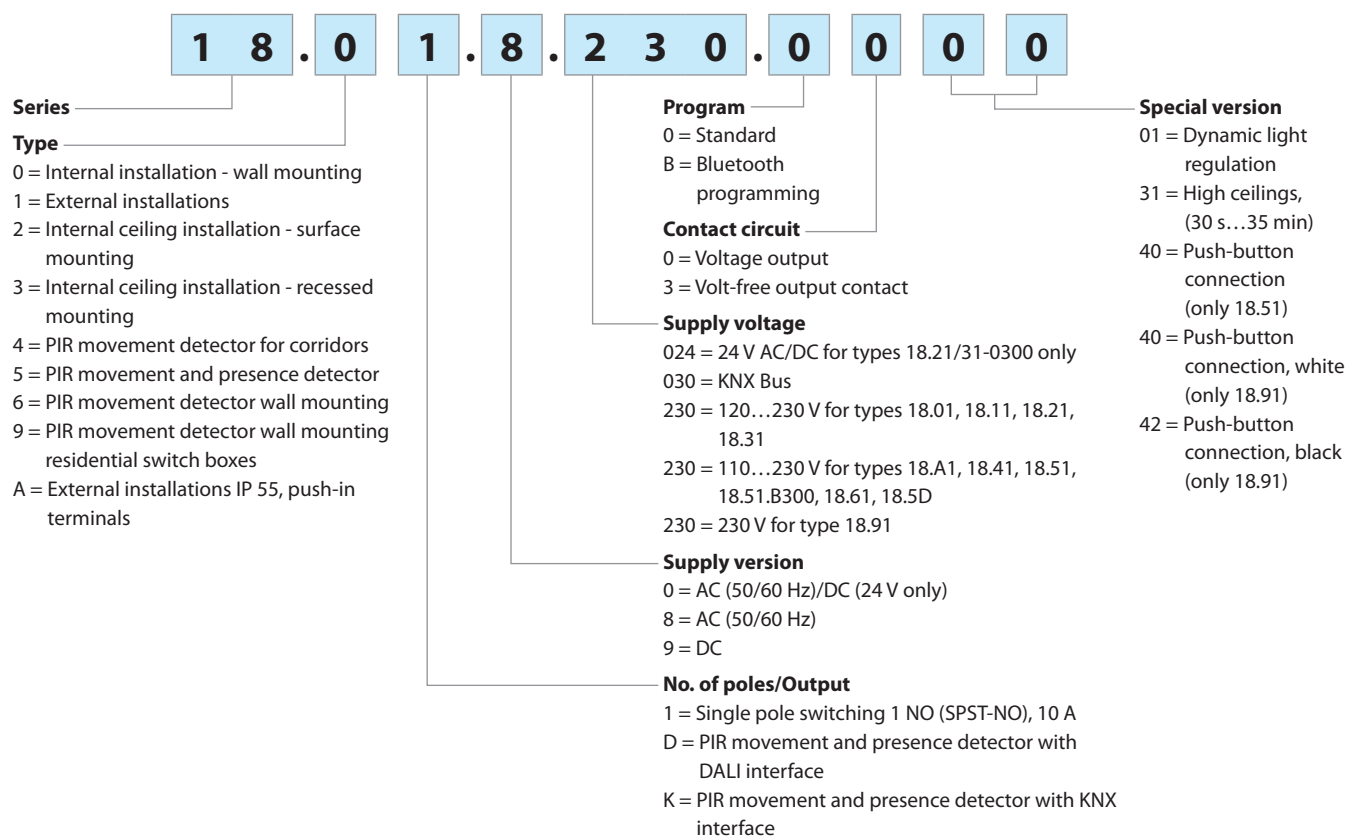
18.91 **NEW**



- Specifically for wall mounting
- Wide angle: 110°
- Applications: corridors, transit areas, toilets, staircases

Ordering information


Example: 18 series, PIR movement detector for internal installations, wall mounting, 1 NO 10 A contact, 120...230 V AC supply.



Codes

| | | |
|------------------|------------------|------------------|
| 18.01.8.230.0000 | 18.31.0.024.0300 | 18.41.8.230.0300 |
| 18.11.8.230.0000 | 18.31.8.230.0000 | 18.51.8.230.0300 |
| 18.21.0.024.0300 | 18.31.8.230.0300 | 18.51.8.230.0040 |
| 18.21.8.230.0000 | 18.31.8.230.0031 | 18.51.8.230.B300 |
| 18.21.8.230.0300 | | 18.61.8.230.0300 |
| | | 18.91.8.230.0040 |
| | | 18.91.8.230.0042 |
| | | 18.A1.8.230.0000 |
| | | 18.5D.8.230.0000 |
| | | 18.4K.9.030.0001 |
| | | 18.5K.9.030.0001 |

Technical data

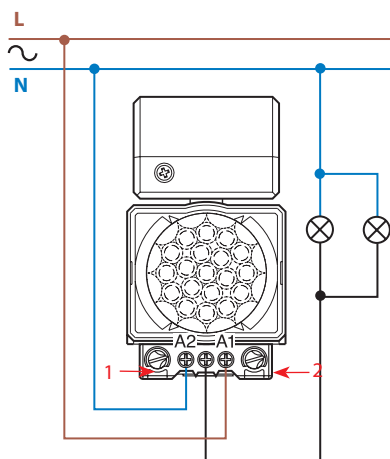
| Insulation | | | | | |
|--|---|---------------------------|--|--|--|
| Dielectric strength between open contacts | | | V AC | 1000 (except for type 18.91 TRIAC output) | |
| Between supply and contact | | | V AC | 1500 (types 18.21...0300, 18.31...0300, 18.41, 18.51, 18.61) | |
| EMC specifications | | | | | |
| Type of test | | Reference standard | | | |
| Electrostatic discharge | contact discharge | EN 61000-4-2 | 4 kV | | |
| | air discharge | EN 61000-4-2 | 8 kV | | |
| Radiated electromagnetic field (80...2000 MHz) | | EN 61000-4-3 | 3 V/m | | |
| Fast transients (burst 5/50 ns, 5 and 100 kHz) | on supply terminals | EN 61000-4-4 | 1 kV | | |
| Voltage pulses on supply terminals (surge 1.2/50 µs) | common mode | EN 61000-4-5 | 4 kV (2 kV for 18.91) | | |
| | differential mode | EN 61000-4-5 | 4 kV (2.5 kV for 18.01/11, 1 kV for 18.91) | | |
| Radiofrequency common mode voltage (0.15...230 MHz) | on supply terminals | EN 61000-4-6 | 3 V | | |
| Voltage dips | 70% U _N , 40% U _N | EN 61000-4-11 | 10 cycles | | |
| Short interruptions | | EN 61000-4-11 | 10 cycles | | |
| Radiofrequency conducted emissions | (0.15...30)MHz | EN 55014 | class B | | |
| Radiated emissions | (30...1000)MHz | EN 55014 | class B | | |
| Terminals | | | 18.01, 18.11, 18.21, 18.31, 18.91 | | 18.41, 18.51, 18.51...B300, 18.61, 18.A1 |
| Type | | |  Screw terminal | | Push-in (see pag. 19) |
| Screw torque | | | Nm | 0.5 | — |
| Max. wire size | | | solid cable | stranded cable | solid cable |
| | | mm ² | 1 x 6 / 2 x 4 | 1 x 4 / 2 x 2.5 | 2.5 |
| | | AWG | 1 x 10 / 2 x 12 | 1 x 12 / 2 x 14 | 14 |
| Wire strip length | | | mm | 9 | 8 |
| Other data | | | | | |
| Power lost to the environment | | without output current | W | 0.3 | |
| | | with rated output current | W | 1.4 | |
| Cable grip (type 18.11) | | | Ø mm | (8.9...12) | |

Following the initial power-on, and power-on following a power interruption, the detector makes a hardware-software initialisation for approximately 30 seconds.

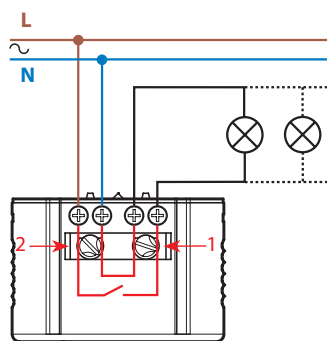
The behaviour of the output during this period can vary depending on the product type, and in some cases on the state of the detector before the power interruption and on the lighting level.

Wiring diagram

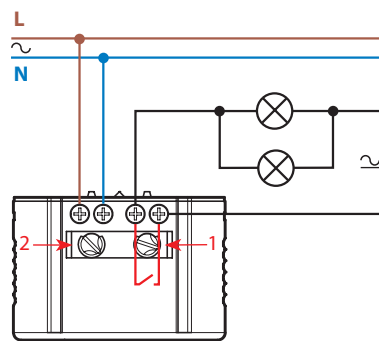
Type 18.01/18.11



Type 18.21/18.31/18.31...0031

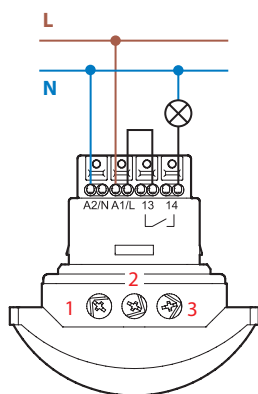


Type 18.21-0300/18.31...0300

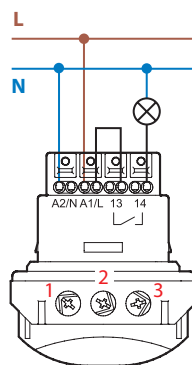


1 = ambient light intervention threshold
2 = light ON time following last detection

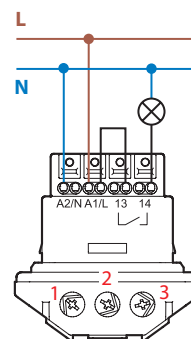
Type 18.41



Type 18.51/18.51-B300



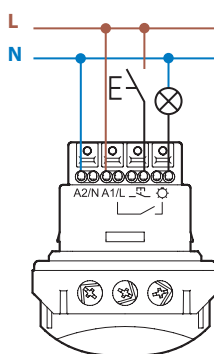
Type 18.61



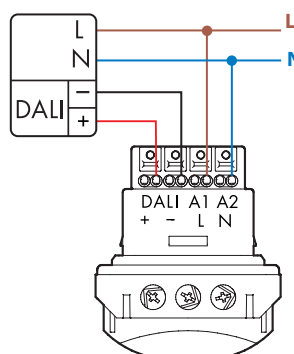
1 = light ON time following last detection
2 = sensitivity setting
3 = ambient light intervention threshold
Note: not for 18.51...B300

The nominal lamp rating as stated in the contact specification applies when wiring is realized in accordance with the diagrams above.
If the load is powered from a phase different to that powering the Movement detector, then a 50% reduction in the lamp rating must be considered.

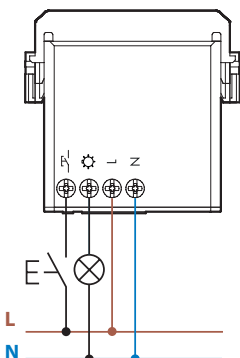
Type 18.51...0040



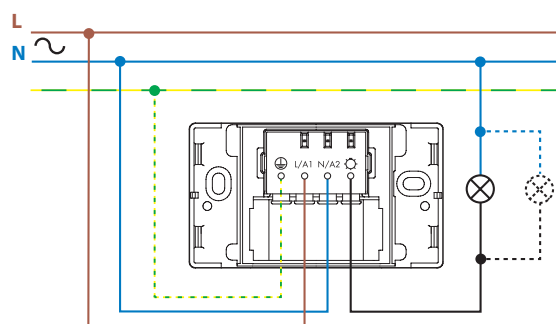
Type 18.5D



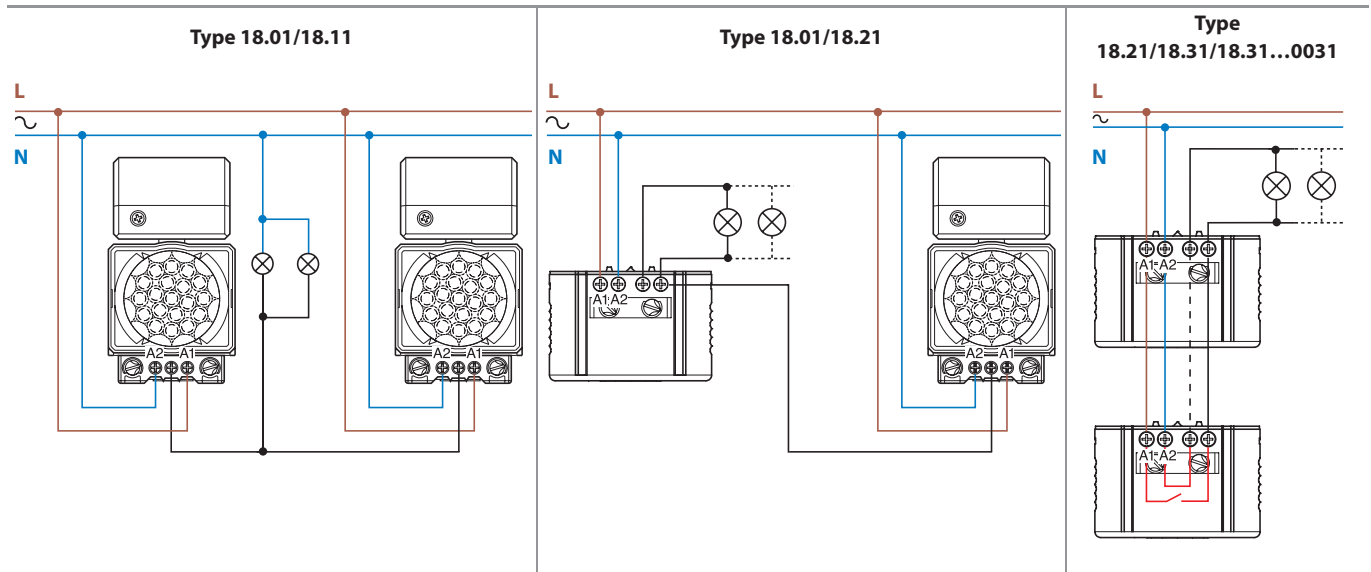
Type 18.91



Type 18.A1



Wiring diagram



Note: Observe the polarity indicated for Phase and Neutral

Type 18.51-B300 - Bluetooth

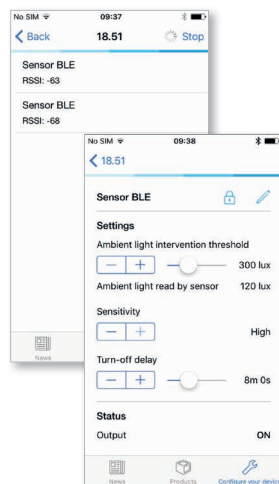
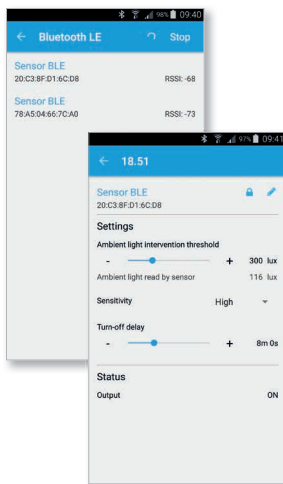
Through the use of Bluetooth LE (Low Energy) technology programming the detector's operating characteristics can be easily and conveniently done using an Android or iOS smartphone.

After installing the 18.51, simply download the Free **App Finder Toolbox** from Google and Apple's official stores and set all the required parameters.



Finder Toolbox

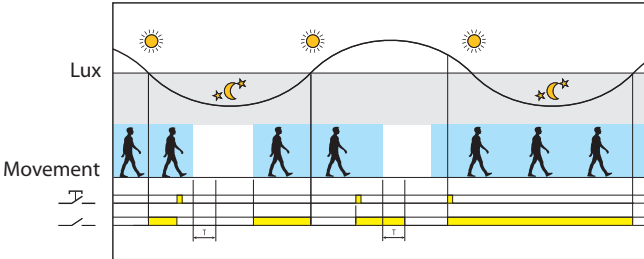
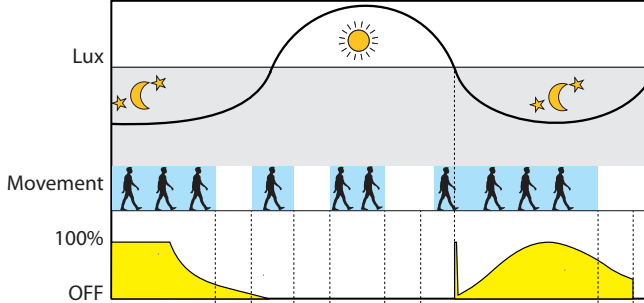
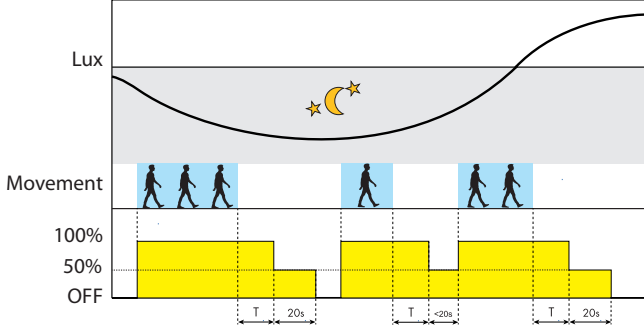
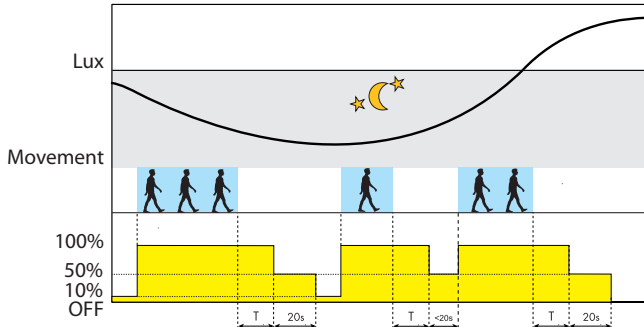
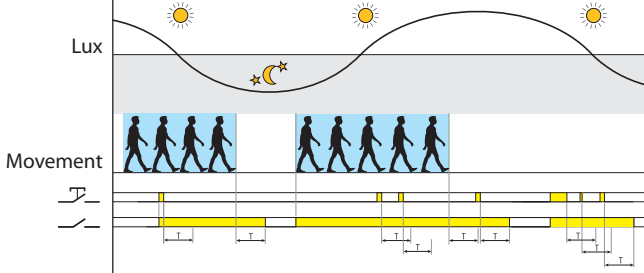
Android, Google Play and the Google Play logo are trademarks of Google Inc.
Apple is a trademark of Apple Inc. App Store is a service mark of Apple Inc.



Detectors can be named and uniquely identified within a building. The ambient light level threshold can be adjusted between 4 lux and 1000 lux, the Light On delay time can be set from 12 seconds to 25 minutes, and the movement detector set to one of three sensitivity levels. When Bluetooth connection is made to a detector a red LED signals the correct pairing and that all the set parameters have been transferred. The detector then responds with two feedback values - brightness as read by the light sensor in the detector and the contact status, if closed (On) or open (Off). For security, the detectors can be locked by a selector switch and a 4-digit PIN - preventing parameter changes by unauthorized persons.

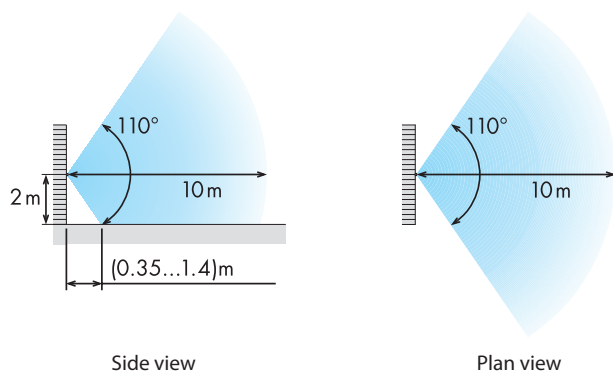
J

Functions

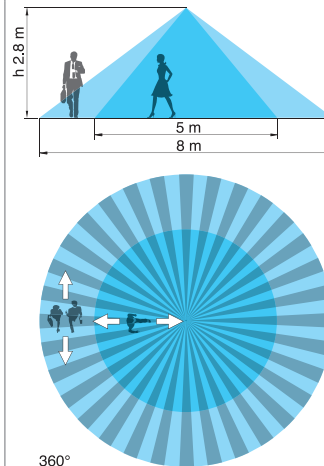
| Type | Functions |
|--------------|---|
| 18.51...0040 |  <p>Push-button function A control pulse on the push-button inverts the status of the output relay, until the timing after the last movement detected is elapsed.</p> <p>Dynamic Light Compensation By incorporating Finder's Patented "light feedback compensation" principle, the 18.51...0040 is able to calculate the artificial light contributed by the lamps controlled by the output relay. In effect, this means the 18.51...0040 is able to continuously monitor the natural ambient light level, even when the output is On. As a consequence, whenever the natural light level exceeds the threshold setting the output is forced Off. This can significantly minimise the time the lighting is On, particularly where there is a high level of traffic - and cost savings can be considerable. This is an advance over other types of movement detectors, which are unable to identify the natural ambient light level when the output is On and so can only turn Off after the time delay that follows the last detected movement. In busy areas this may mean that the movement detector is being continuously re-triggered and maintained in the On state, even though the natural light level has long risen above the threshold.</p> |
| 18.5D |  <p>Comfort - Daylight-linked constant light level control Adjusts to maintain a constant brightness level considering the detection of movement and the level of daylight - increasing or decreasing the power of the artificial light as appropriate. Suitable for small offices, classrooms or workplaces. This allows considerable energy saving while maintaining a comfortable level of illumination.</p>  <p>Simplicity - ON/OFF control with early warning Works as a simple movement detector, activating the lamps at 100% power. But provides an early warning of the next shutdown with a power reduction to 50% for 20 seconds. Avoids a sudden total shutdown of lighting.</p>  <p>Courtesy - ON/OFF control with early warning + courtesy light level If the brightness level is lower than the set value, artificial light is maintained at 10% power, guaranteeing a minimum level of illumination at all times. When movement is detected, the power of the lamps is raised to 100%. There is an early warning of any reduction from the 100% power level by a reduction to 50% for 20 seconds. Suitable for common areas, lobbies, corridors, elevator zones.</p> |
| 18.91 |  <p>Detection of movement Detected movement closes, or keeps closed, the output contact. Operating the push-button closes, or keeps closed, the output contact - for the set time T.</p> |

Sensing area

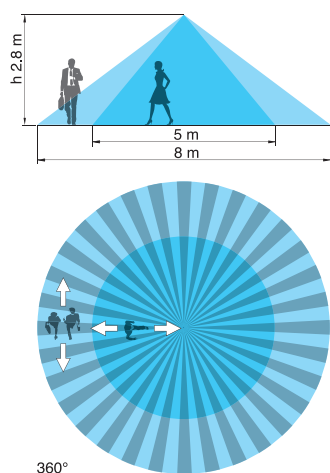
18.01, 18.11, 18.A1 - Wall mounting



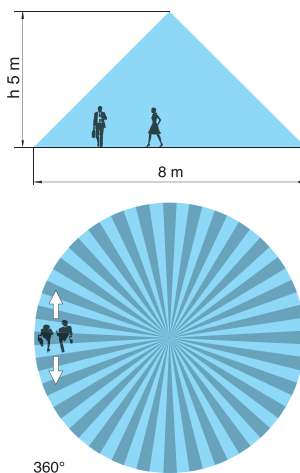
18.01, 18.11 - Ceiling mounting



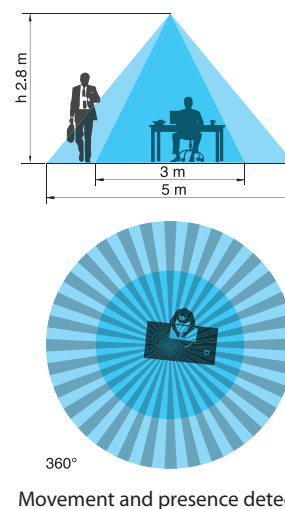
18.21, 18.31 - Ceiling mounting



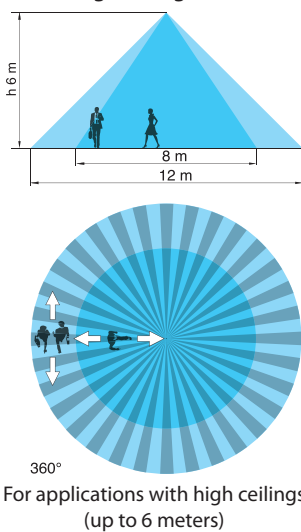
18.31.8.230.0000/18.21.8.230.0000 - Ceiling mounting



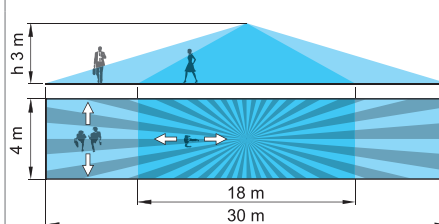
18.31...0031 - Internal ceiling installation, surface mounting



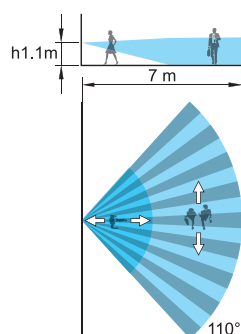
18.31...0031 - High ceilings installations



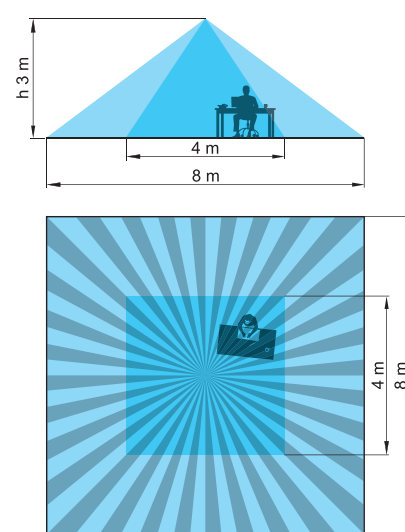
18.41/18.4K



18.91

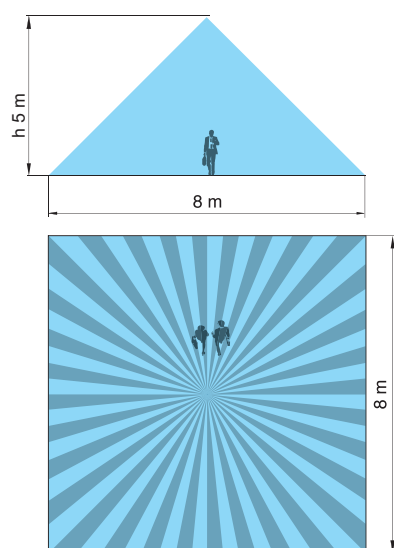


18.51/18.51...B300/18.5K/15.5D

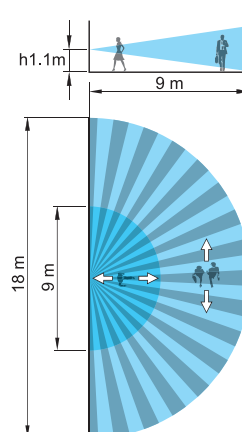


Sensing area

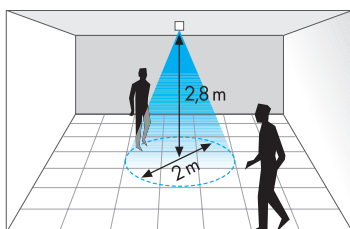
18.51/18.51...B300/18.5K/15.5D



18.61



Accessories



Example: 18.21/18.31 with Beam limiter

Beam limiter (supplied with the types 18.21/31/41/51)

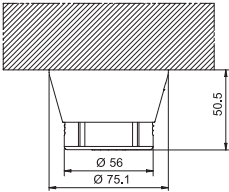
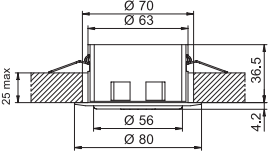
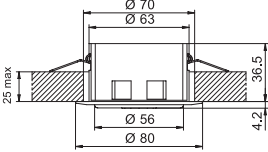
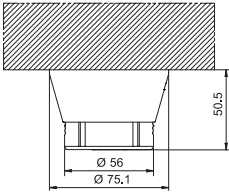
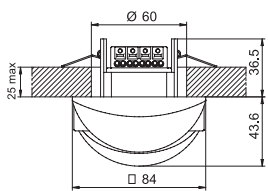
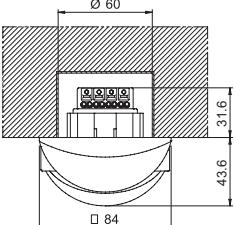
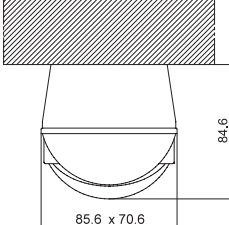
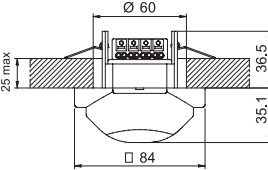
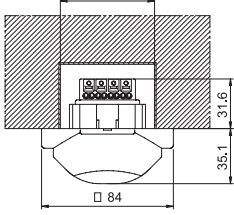
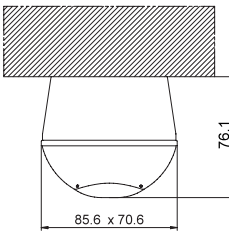
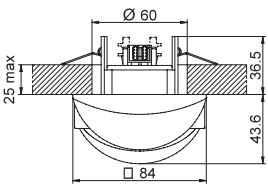
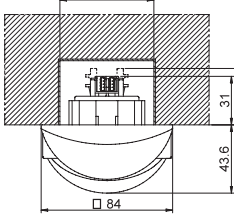
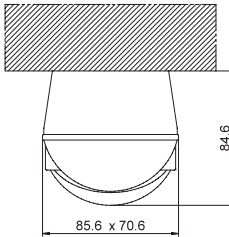
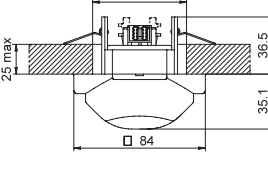
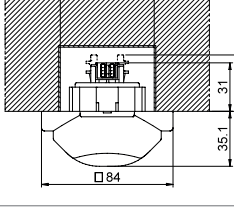
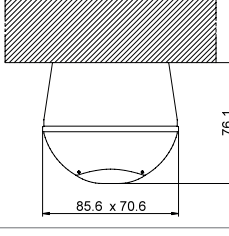
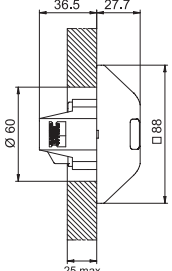
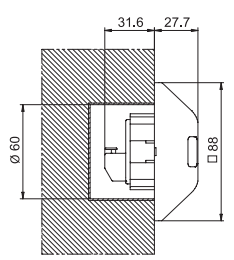
At an installation height of 2.8 meters the area of survey will reduce at:

18.21/18.31: diameter 2 meters

18.41: 2.5 x 6 meters

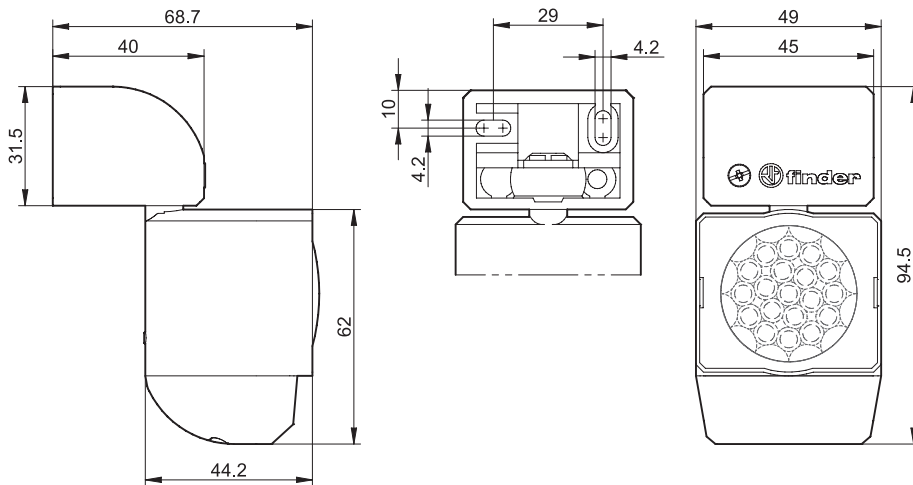
18.51: 2 x 2 meters

Outline drawings

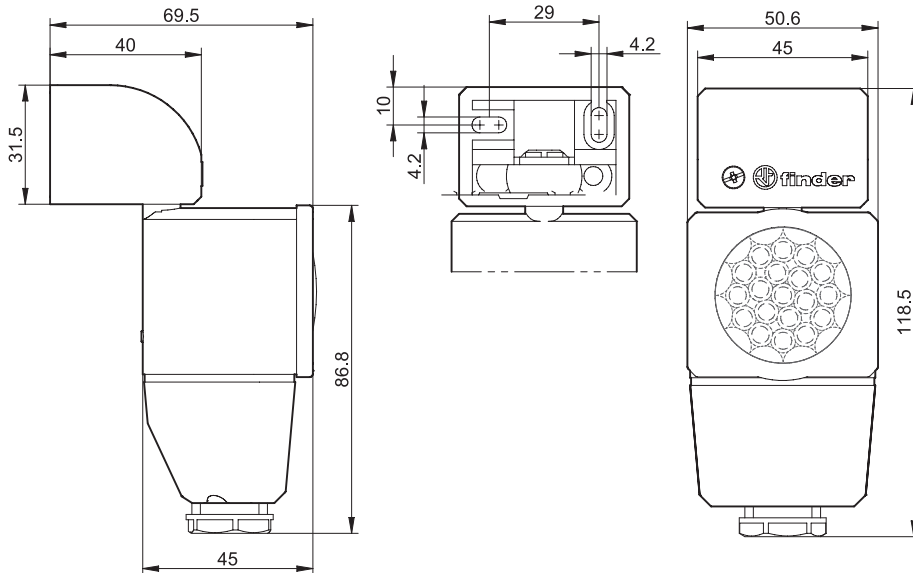
| Type | Suspended ceiling mounting | Recess mounting | Surface mounting |
|--------------------------------|---|--|---|
| 18.21 | | |  |
| 18.31 |  | | |
| 18.31...0031 |  | |  |
| 18.41 |  |  |  |
| 18.51 18.5D 18.51...B300 |  |  |  |
| 18.4K |  |  |  |
| 18.5K |  |  |  |
| 18.61 |  |  | |

Outline drawings

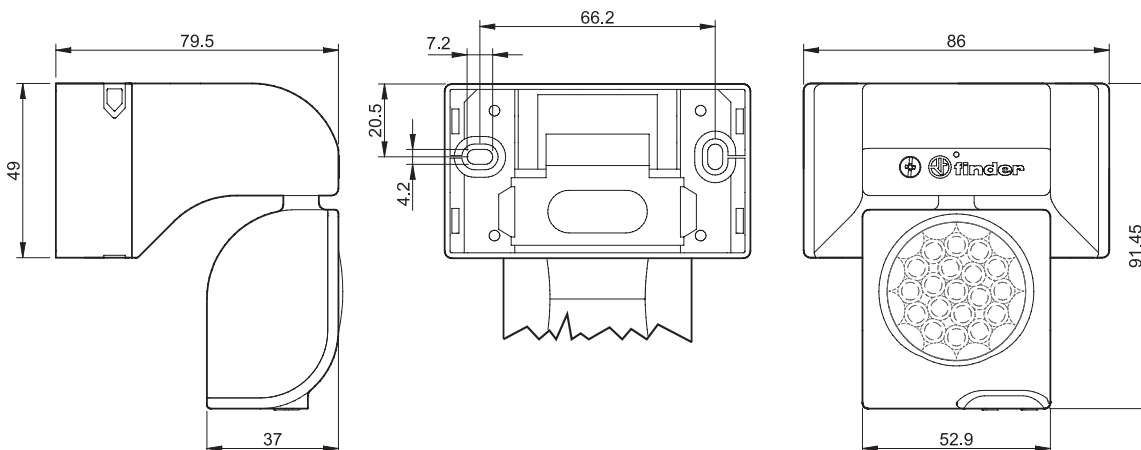
Type 18.01



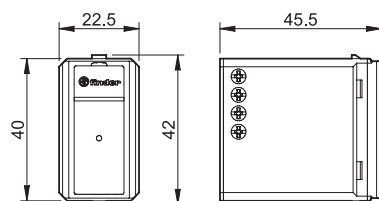
Type 18.11



Type 18.A1

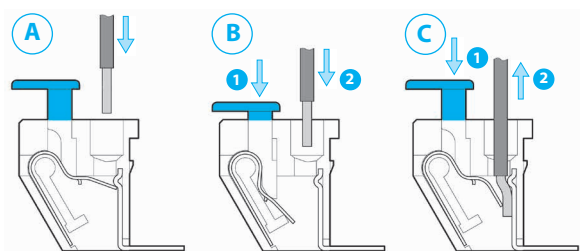


Type 18.91



Push-in terminals for 18.41, 18.51, 18.5D, 18.61 and 18.A1

The push-in terminals permit the quick connection of solid wires or ferrules by their simple insertion into the terminal (A). It is possible to open the terminal to extract the wire by first pushing down on the push-button using a screwdriver or fingers (C). For stranded cable it is necessary first to open the terminal using the push button, both for the extraction (C) and insertion (B).



Double terminals for the easy "looping" between multiple 18 Series.
The Max. wire size for each terminal is 2.5 mm².

The terminals are equipped with a test hole to take a test probe.

