

# 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

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**PIR movement detectors for indoor or outdoor installations - wall mounting**

**Type 18.01**

- Indoor installation
- Surface mounting

**Type 18.11**

- Outdoor installation (IP 54)
- Surface mounting

**Type 18.A1**

- Outdoor installation (IP 55)
- 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  
Box clamp

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 19

**Contact specification**

	18.01	18.11	18.A1
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)	A 10/20 (100 A - 5 ms)	A 10/20 (100 A - 5 ms)
Rated voltage/Maximum switching voltage	V AC 230/230	V AC 230/230	V AC 230/230
Rated load AC1	VA 2300	VA 2300	VA 2300
Rated load AC15	(230 V) VA 450	(230 V) VA 450	(230 V) VA 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	150	150	150
LED 230 V W	150	150	150
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 <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

**Supply specification**

	18.01	18.11	18.A1
Coil specification	V AC (50/60 Hz) 120...230	V AC (50/60 Hz) 120...230	V AC (50/60 Hz) 110...230
	DC —	DC —	DC —
Rated power AC/DC	VA (50 Hz)/W 2.5/—	VA (50 Hz)/W 2.5/—	VA (50 Hz)/W 2/0.8
Operating range	V AC (50/60 Hz) 96...253	V AC (50/60 Hz) 96...253	V AC (50/60 Hz) 96...253
	DC —	DC —	DC —

**Technical data**

	18.01	18.11	18.A1
Electrical life at rated load AC1	cycles 100 · 10 <sup>3</sup>	cycles 100 · 10 <sup>3</sup>	cycles 100 · 10 <sup>3</sup>
Ambient light intervention threshold	lx 5...350	lx 5...350	lx 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 16	See diagram page 16	See diagram page 16
Ambient temperature range	°C -10...+50	°C -30...+50	°C -30...+50
Protection category	IP 40	IP 54	IP 55

**Approvals (according to type)**



**Adjustable PIR movement detector for indoor and outdoor wall - mounting installation**
**Type 18.71.8.230.000x**
**Adjustable pir movement detector for indoor wall - mounted installation**

- Surface mounting
- Automatic timing

**Type 18.81.8.230.000x**
**Adjustable pir movement detector for outdoor wall - mounted installation**

- Surface mounting
- Volt-free contact
- Switching push-button
- Adjustable Light ON Time
- Small size
- Adjustable ambient light intervention threshold
- Universal mounting position - permits the selection of any area for survey
- Wide angle of survey
- Easy mounting

18.71/18.81  
Box clamp



For outline drawings see page 20

**Colour**

White	18.71.8.230.0000	18.81.8.230.0000
Anthracite gray	18.71.8.230.0002	18.81.8.230.0002

**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 230/230	230/230
Rated load AC1	VA 2300	2300
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	150	150
LED 230 V W	150	150
halogen or LV LED with electronic ballast W	300	300
halogen or LV LED with electromagnetic ballast W	500	500

Standard contact material	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
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**Supply specification**

Coil specification	V AC (50/60 Hz)	230	230
	DC	—	—
Rated power AC/DC	VA (50 Hz)/W	5/0.5	5/0.5
Operating range	V AC (50/60 Hz)	184...253	184...253
	DC	—	—

**Technical data**

Electrical life at rated load AC1	cycles	100 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
Ambient light intervention threshold	lx	10...350	10...350
Light ON time after last detection		18 s...15 min (automatic)	18 s...15 min
Sensing area		See diagram page 16	See diagram page 16
Ambient temperature range	°C	-10...+50	-30...+50
Protection category		IP 40	IP 55

**Approvals (according to type)**

**NEW 18.71**


- 1 NO (SPST-NO) 10 A
- Indoor installation
- Automatic Timing

**NEW 18.81**


- 1 NO (SPST-NO) 10 A
- Outdoor installation
- Protection category IP 55



**PIR movement detectors for indoor installations - ceiling mount**

**Type 18.21**

- Surface mounting

**Type 18.31**

- Recess mounting or surface mounting (only for anthracite gray version)

**Type 18.31...003x**

- 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...003x  
Box clamp



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	NEW 18.31	NEW 18.31...003x
Number of contacts	1 NO (SPST-NO)	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current	10/20 (100 A - 5 ms)	10/20 (100 A - 5 ms)	10/20 (100 A - 5 ms)
Rated voltage/Maximum switching voltage	230/230	230/230	230/230
Rated load AC1	2300	2300	2300
Rated load AC15 (230 V)	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	150	150	150
LED 230 V W	150	150	150
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 <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

**Supply specification**

	18.21	NEW 18.31	NEW 18.31...003x
Coil specification	120...230	120...230	120...230
V AC (50/60 Hz)			
DC	—	—	—
Rated power AC/DC	2/1	2/1	2/1
VA (50 Hz)/W			
Operating range	96...253	96...253	96...253
V AC (50/60 Hz)			
DC	—	—	—

**Technical data**

	18.21	NEW 18.31	NEW 18.31...003x
Electrical life at rated load AC1	100 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
cycles			
Ambient light intervention threshold	5...350	5...350	5...350
lx			
Light ON time after last detection	10 s...12 min	10 s...12 min	30 s...35 min
Sensing area	See diagram page 16	See diagram page 16	See diagram page 16
Ambient temperature range	-10...+50	-10...+50	-10...+50
°C			
Protection category	IP 40	IP 40	IP 40

**Approvals** (according to type)



- 1 NO 10 A
- Surface mounting

- 1 NO 10 A
- Recess mounting or surface mounting (only for anthracite gray version)

- 1 NO 10 A
- High ceiling applications (up to 6 meters)
- Light ON time after last detection (30 s...35 min)


**PIR movement detectors for indoor installations, with volt-free output contact**
**Type 18.21...0300**

- Surface mounting

**Type 18.31...03xx**

- Recess mounting or surface mounting (only for anthracite gray version)
- 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...03xx

Box clamp



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

**18.21...0300**


- 1 NO 10 A
- Surface mounting

**NEW 18.31...03xx**


- 1 NO 10 A
- Recess mounting or surface mounting (only for anthracite gray version)

**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		150	150
LED 230 V W		150	150
halogen or LV LED with electronic ballast W		300	300
halogen or LV LED with electromagnetic ballast W		500	500
Standard contact material		AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

**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 <sup>3</sup>	100 · 10 <sup>3</sup>
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 16	See diagram page 16
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 indoor 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

18.5D  
Push-in terminal



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 m<sup>2</sup>
- Two sensing areas:  
"presence" suitable for zones of low activity, and  
"movement" suitable for transit areas or zones of high activity

For outline drawings see page 18

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		—
Supply voltage	V DC	—
Rated consumption	mA	—
Technical data		
Ambient light intervention threshold	lx	10...800
Light ON time after last detection		10 s...35 min
Sensing area		See diagram page 16, 17
Ambient temperature range	°C	-10...+50
Protection category		IP 40
<b>Approvals</b> (according to type)		<b>CE UK CA</b>

**Movement detectors with Push-in terminals  
For indoor installation - with volt-free output  
contact**

**Type 18.41**

- Corridor (ceiling) installation

- Extensive sensing area up to 120 m<sup>2</sup>
- Modern design
- Quick installation thanks to push-in terminals
- 1 NO contact 10 A, with "zero crossing" switching
- Double terminals for easy "looping" in and out

18.41  
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)
Rated current/Maximum peak current	A	10/20 (100 A - 5 ms)
Rated voltage/ Maximum switching voltage	V AC	250/400
Rated load AC1	VA	2500
Rated load AC15	VA	450
Nominal lamp rating 230 V:		
incandescent/halogen W		1000
fluorescent lamp with electronic ballast W		500
fluorescent lamp with electromagnetic ballast W		350
CFL W		150
LED 230 V W		150
halogen or LV LED with electronic ballast W		300
halogen or LV LED with electromagnetic ballast W		500

Standard contact material AgSnO<sub>2</sub>

**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

**Technical data**

Electrical life at rated load AC1	cycles	100 · 10 <sup>3</sup>
Ambient light intervention threshold	lx	1...∞
Light ON time after last detection		12 s...35 min
Sensing area		See diagram page 16
Ambient temperature range	°C	-10...+50
Protection category		IP 40

**Approvals** (according to type)



**18.41**



- 1 NO 10 A
- Applications: hotel and offices corridors, transit areas
- Sensing area 30 meters length and 4 meters width

**Movement detectors for indoor 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 anthracite gray versions

 18.91  
Box clamp


For outline drawings see page 20

**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
LED 230 V W		200
electronic transformers for LV LED W		200

**Supply specification**

Nominal voltage ( $U_N$ )	V AC (50/60 Hz)	230
Rated power	VA(50 Hz)/W	14/0.5
Operating range		$(0.8 \dots 1.1)U_N$

**Technical data**

Ambient light intervention threshold	lx	5...500 (anthracite gray)/6...600 (white)
Light ON time after last detection		10 s...20 min
Sensing area		See diagram page 16
Ambient temperature range	°C	-10...+50
Protection category		IP 20

**Approvals** (according to type)

**18.91**


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

### Ordering information

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

<div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">8</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">.</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">.</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">8</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">.</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">3</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">.</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 0 5px;">0</div>																																				
<p><b>Series</b></p> <p><b>Type</b></p> <p>0 = Adjustable, indoor installation - wall mounting</p> <p>1 = Adjustable, outdoor installation</p> <p>2 = Indoor ceiling installation - surface mounting</p> <p>3 = Indoor ceiling installation - recessed mounting</p> <p>4 = PIR movement detector for corridors</p> <p>5 = PIR movement and presence detector</p> <p>7 = Adjustable, indoor installation - wall mounting, easy installation</p> <p>8 = Adjustable, outdoor installation - wall mounting, easy installation</p> <p>9 = PIR movement detector wall mounting residential switch boxes</p> <p>A = Outdoor installations IP 55, push-in terminals</p>	<p><b>Program</b></p> <p>0 = Standard</p> <p>B = Bluetooth programming</p> <p><b>Contact circuit</b></p> <p>0 = Voltage output</p> <p>0 = Volt-free output contact (only for 18.81)</p> <p>3 = Volt-free output contact</p> <p><b>Supply voltage</b></p> <p>024 = 24 V AC/DC for types 18.21/31-0300 only</p> <p>230 = 120...230 V for types 18.01, 18.11, 18.21, 18.31</p> <p>230 = 110...230 V for types 18.A1, 18.41, 18.51, 18.51.B300, 18.5D</p> <p>230 = 230 V for type 18.71, 18.81, 18.91</p> <p><b>Supply version</b></p> <p>0 = AC (50/60 Hz)/DC (only 24 V)</p> <p>8 = AC (50/60 Hz)</p> <p><b>No. of poles/Output</b></p> <p>1 = Single pole switching 1 NO (SPST-NO), 10 A</p> <p>D = PIR movement and presence detector with DALI interface</p>	<p><b>Special version</b></p> <p>0 = Standard version</p> <p>1 = High bay lens, colour white (only 18.31)</p> <p>2 = Colour anthracite gray</p> <p><b>Special version</b></p> <p>0 = Standard version</p> <p>0 = External push-button connection (only for 18.81)</p> <p>2 = Ceiling and counter-ceiling mounting adpters included in packaging (only 18.31)</p> <p>3 = High bay lens, ceiling and counter-ceiling mounting adpters included in packaging (only 18.31)</p> <p>4 = External push-button connection (only 18.51-0040 and 18.91)</p>																																				
<p><b>Codes</b></p> <table border="0"> <tr> <td>18.01.8.230.0000</td> <td>18.31.0.024.0300</td> <td>18.41.8.230.0300</td> </tr> <tr> <td>18.11.8.230.0000</td> <td>18.31.8.230.0000</td> <td>18.51.8.230.0040</td> </tr> <tr> <td>18.21.0.024.0300</td> <td>18.31.8.230.0022</td> <td>18.51.8.230.0300</td> </tr> <tr> <td>18.21.8.230.0000</td> <td>18.31.8.230.0031</td> <td>18.51.8.230.B300</td> </tr> <tr> <td>18.21.8.230.0300</td> <td>18.31.8.230.0032</td> <td>18.71.8.230.0000</td> </tr> <tr> <td></td> <td>18.31.8.230.0300</td> <td>18.71.8.230.0002</td> </tr> <tr> <td></td> <td>18.31.8.230.0322</td> <td>18.81.8.230.0000</td> </tr> <tr> <td></td> <td></td> <td>18.81.8.230.0002</td> </tr> <tr> <td></td> <td></td> <td>18.81.8.230.0040</td> </tr> <tr> <td></td> <td></td> <td>18.91.8.230.0042</td> </tr> <tr> <td></td> <td></td> <td>18.A1.8.230.0000</td> </tr> <tr> <td></td> <td></td> <td>18.5D.8.230.0000</td> </tr> </table>			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	18.51.8.230.0040	18.21.0.024.0300	18.31.8.230.0022	18.51.8.230.0300	18.21.8.230.0000	18.31.8.230.0031	18.51.8.230.B300	18.21.8.230.0300	18.31.8.230.0032	18.71.8.230.0000		18.31.8.230.0300	18.71.8.230.0002		18.31.8.230.0322	18.81.8.230.0000			18.81.8.230.0002			18.81.8.230.0040			18.91.8.230.0042			18.A1.8.230.0000			18.5D.8.230.0000
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## 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...03xx, 18.41, 18.51...0300, 18.51...B300, 18.81)

### 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...1000 MHz)		EN 61000-4-3	10 V/m (18.71, 18.81)
Radiated electromagnetic field (80...2000 MHz)		EN 61000-4-3	3 V/m
Radiated electromagnetic field (1.4...6 GHz)		EN 61000-4-3	3 V/m (18.71, 18.81)
Fast transients (burst 5/50 ns, 5 and 100 kHz)	on supply terminals	EN 61000-4-4	1 kV 2 kV (18.71, 18.81)
	common mode	EN 61000-4-5	4 kV (18.01, 18.11, 18.21, 18.31, 18.41, 18.51, 18.A1, 18.5D) 2 kV (18.91)
Voltage pulses on supply terminals (surge 1.2/50 µs)	differential mode	EN 61000-4-5	4 kV 2.5 kV (18.01, 18.11) 1 kV (18.91) 3 kV (18.71, 18.81)
	Radiofrequency common mode voltage (0.15...80 MHz)	on supply terminals	EN 61000-4-6
Radiofrequency common mode voltage (0.15...230 MHz)	on supply terminals	EN 61000-4-6	3 V
Voltage dips	70% U <sub>N</sub> , 40% U <sub>N</sub>	EN 61000-4-11	10 cycles
	100% U <sub>N</sub> , 60% U <sub>N</sub> , 30% U <sub>N</sub>	EN 61000-4-11	10 cycles (18.71, 18.81)
Radiofrequency conducted emissions	(0.15...30)MHz	EN 55014	class B
Radiated emissions	(30...1000)MHz	EN 55014	class B

### Terminals

Terminals	18.01, 18.11, 18.21, 18.31, 18.91		18.71, 18.81		18.41, 18.51, 18.A1, 18.5D		
	Type	⊕ Box clamp		⊕ Box clamp		Push-in (see pag. 20)	
Screw torque	Nm 0.5		0.35		—		
Max. wire size		solid cable	stranded cable	solid cable	stranded cable	solid cable	stranded cable
	mm <sup>2</sup>	1 x 4 / 2 x 2.5	1 x 4 / 2 x 2.5	1 x 2.5 / 2 x 1	1 x 2.5 / 2 x 1	2.5	2.5
	AWG	1 x 12 / 2 x 14	1 x 12 / 2 x 14	1 x 14 / 2 x 16	1 x 14 / 2 x 16	14	14
Wire strip length	mm	9	9	6	6	8	8

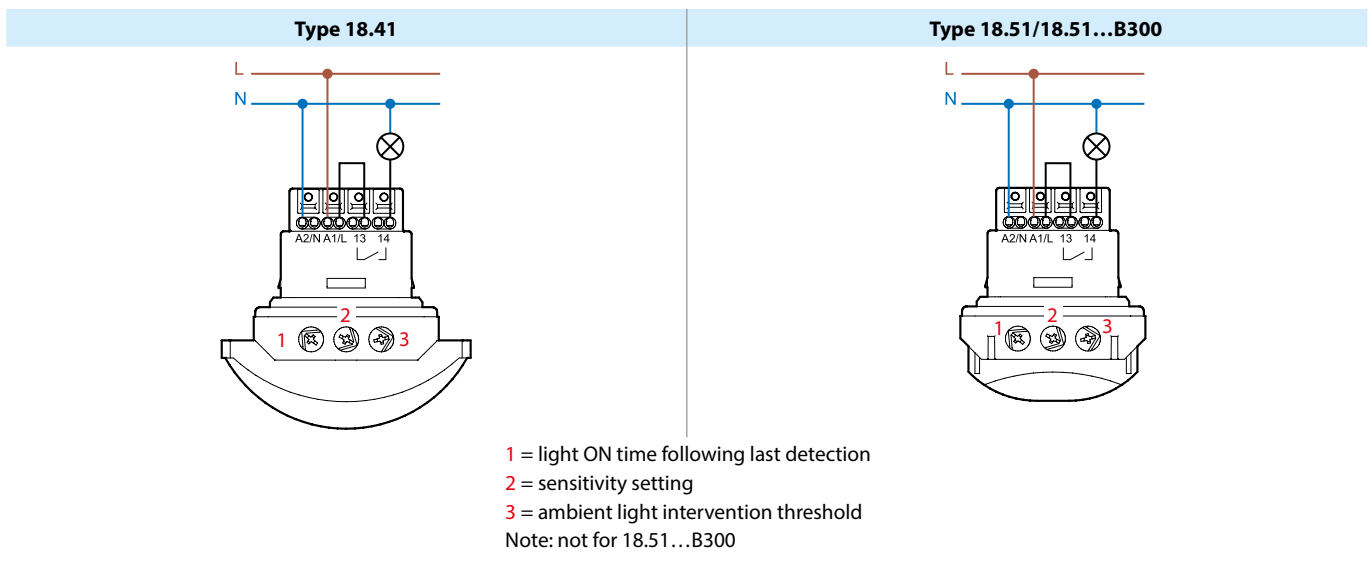
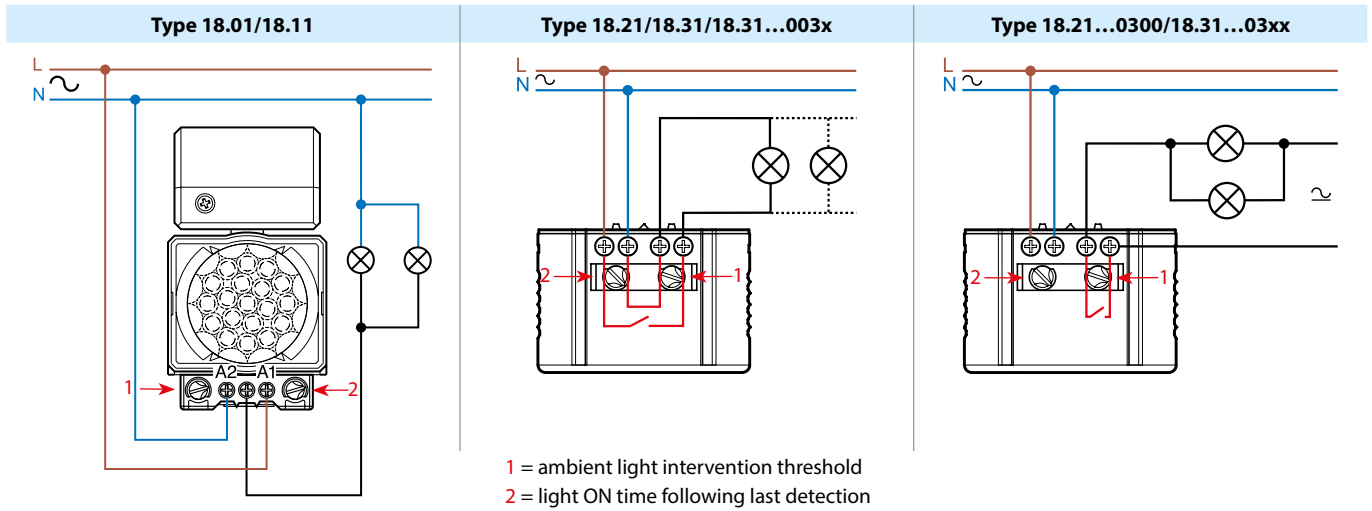
### Other data

Power lost to the environment	without output current	W	0.3
	with rated output current	W	1.4
Cable grip (type 18.11)	∅ mm	(8.9...12)	

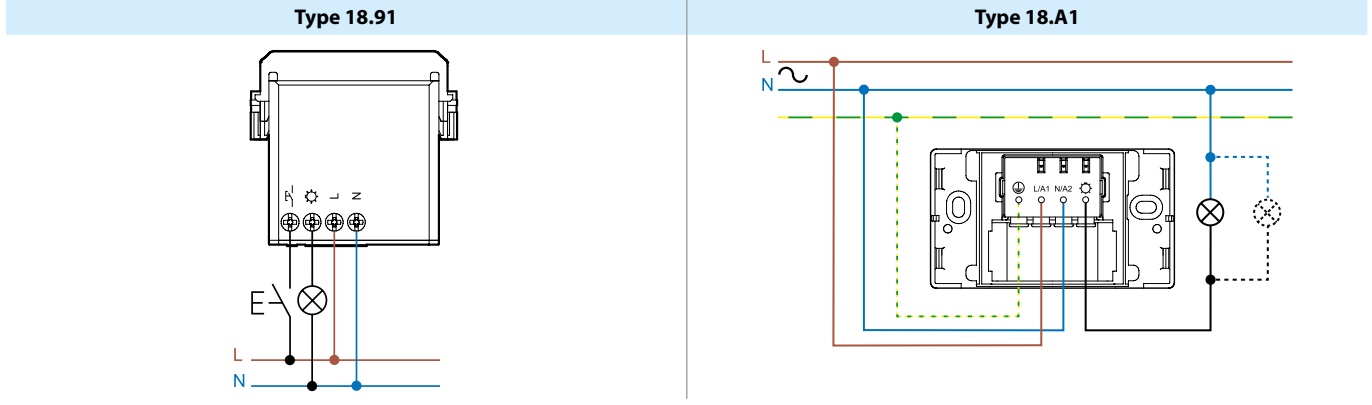
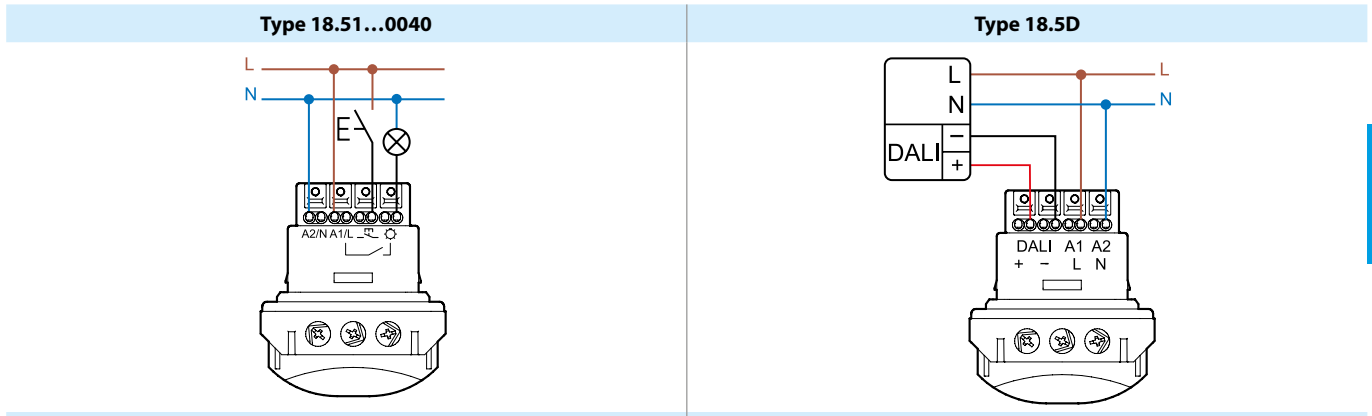
Following the initial power-on, and power-on following a power interruption, the detector makes a hardware-software initialisation for approximately 15 seconds only for 18.71 and 18.81.

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.

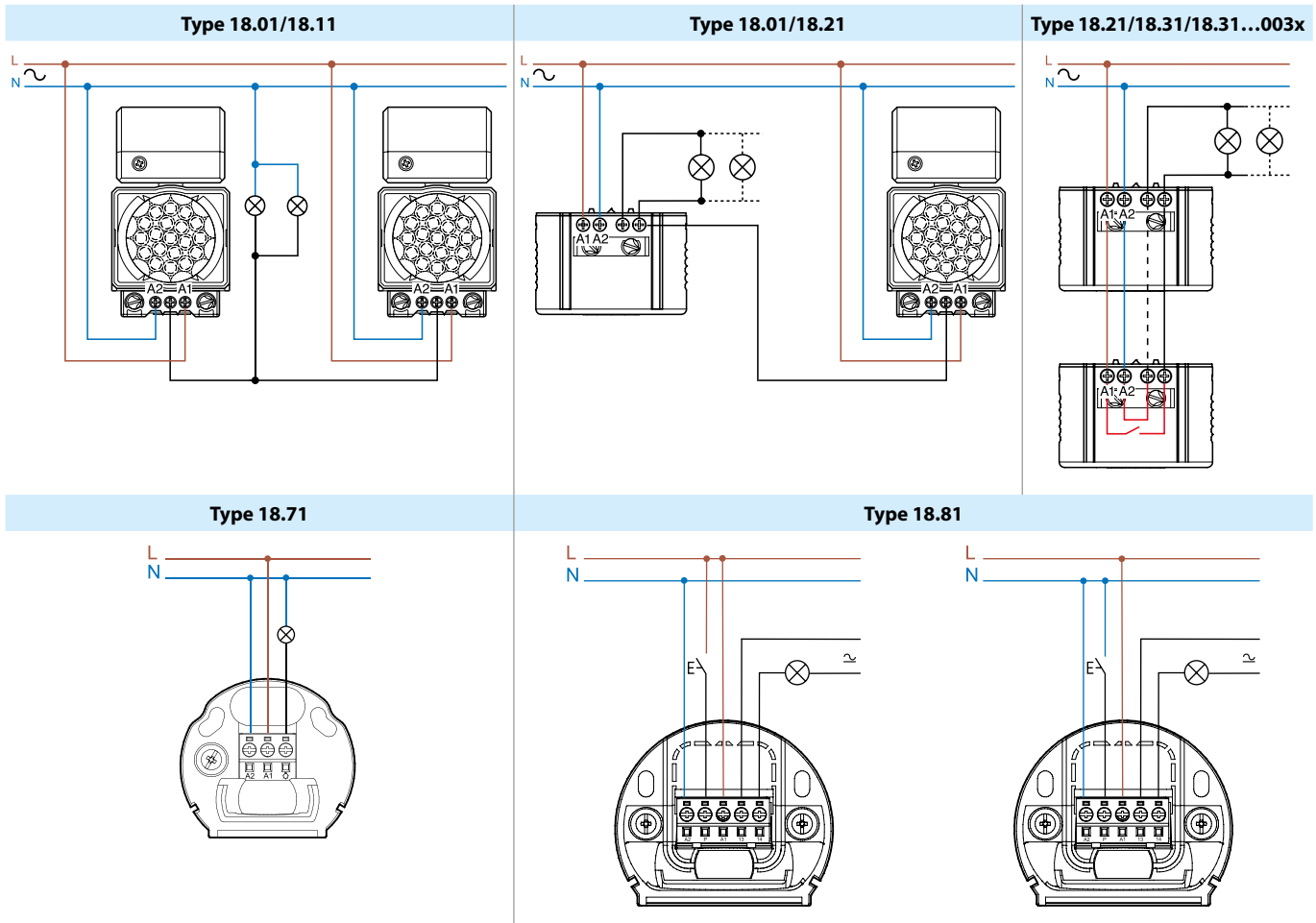
Wiring diagram



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.



### Wiring diagram



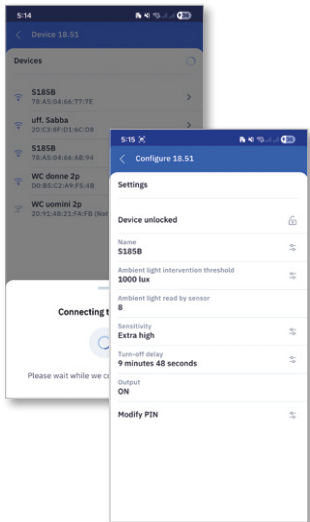
**Note: Observe the polarity indicated for Phase and Neutral**

### 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.

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.

Functions

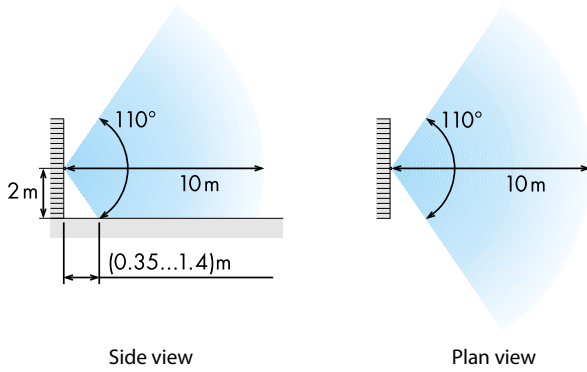
Type	Functions
<p>18.51...0040 18.81 18.91</p>	<p><b>Push-button function (18.51...0040)</b> A control pulse on the push-button inverts the status of the output relay, until the timing after the last movement detected is elapsed.</p> <p><b>Dynamic Light Compensation (18.51...0040, 18.81 and 18.91)</b> By incorporating Finder's Patented "light feedback compensation" principle, the 18.51...0040, 18.81 and 18.91 are 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><b>Comfort - Daylight-linked constant light level control</b> 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><b>Simplicity - ON/OFF control with early warning</b> 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><b>Courtesy - ON/OFF control with early warning + courtesy light level</b> 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>
<p>18.01 18.11 18.21 18.31 18.41 18.51...0300 18.51...B000 18.71 18.A1</p>	<p><b>Detection of movement</b> 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>

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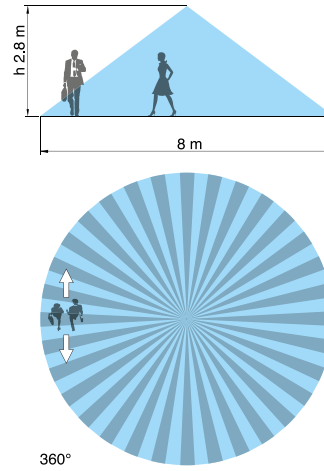
J

Sensing area

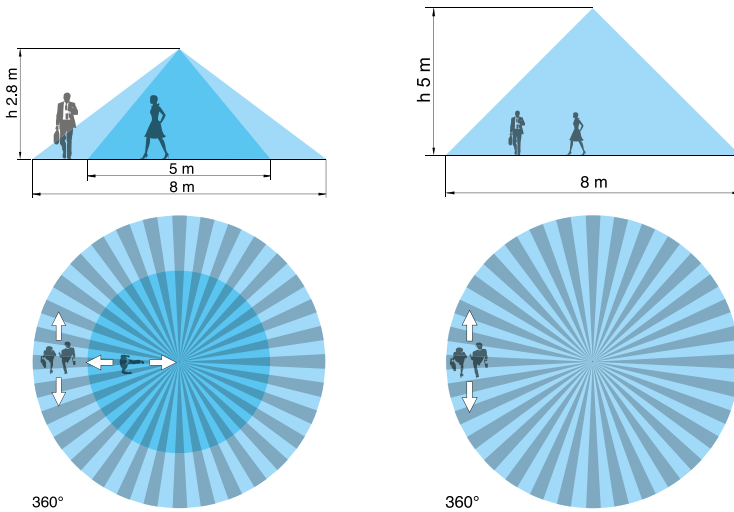
18.01, 18.11, 18.71, 18.81, 18.A1 - Wall mounting



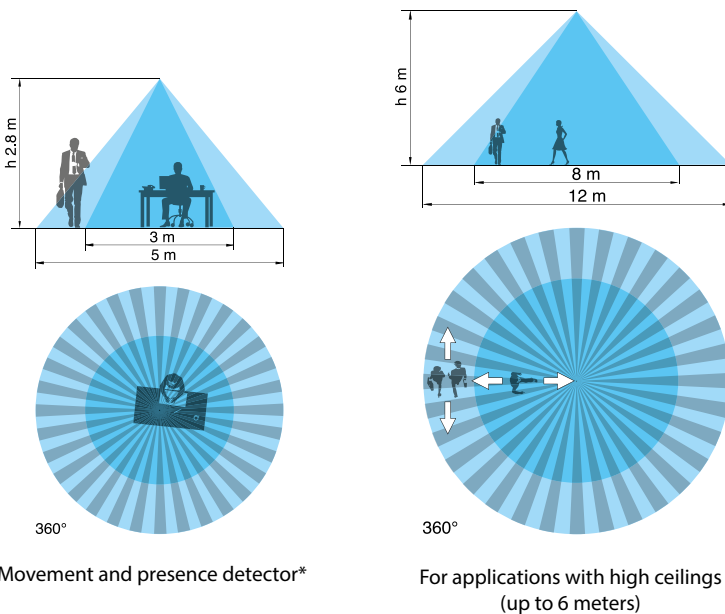
18.01, 18.11, 18.71, 18.81, 18.A1 - Ceiling mounting



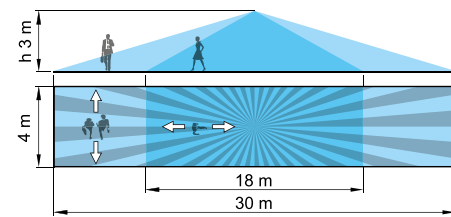
18.21, 18.31 - Ceiling mounting



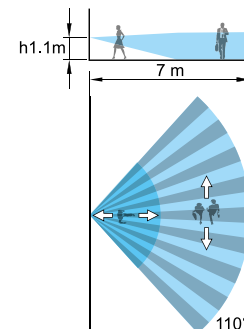
18.31...003x - High ceilings installations



18.41



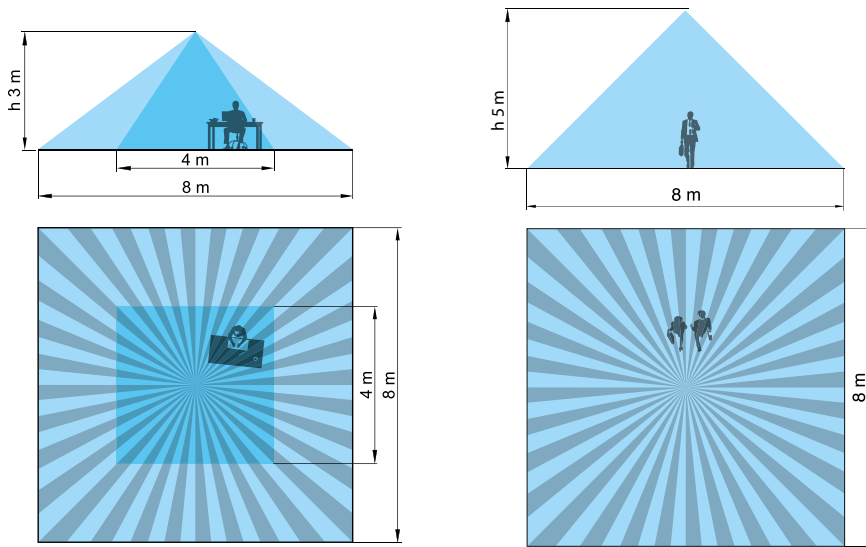
18.91



\* NOTE: Motion and presence detector refers to the device's ability to detect micro-movements of approximately 30 cm. This allows for the detection of people in offices, schools, bathrooms, and other environments. It is not recommended for detecting people who are sleeping or completely motionless.

## Sensing area

18.51/18.51...B300/18.5D

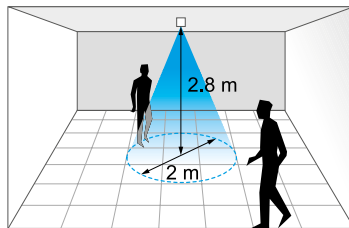


Movement and presence detector\*

\* NOTE: Motion and presence detector refers to the device's ability to detect micro-movements of approximately 30 cm. This allows for the detection of people in offices, schools, bathrooms, and other environments. It is not recommended for detecting people who are sleeping or completely motionless.

## Accessories

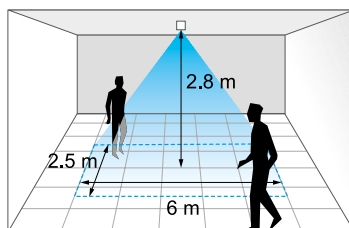
18.21/18.31



### Beam limiter (supplied with the types 18.21/31)

At an installation height of 2.8 meters the area of survey will reduce at: diameter 2 meters

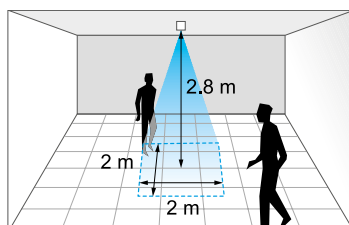
18.41



### Beam limiter (supplied with the type 18.41)

At an installation height of 2.8 meters the area of survey will reduce at: 2.5 x 6 meters

18.51



### Beam limiter (supplied with the type 18.51)

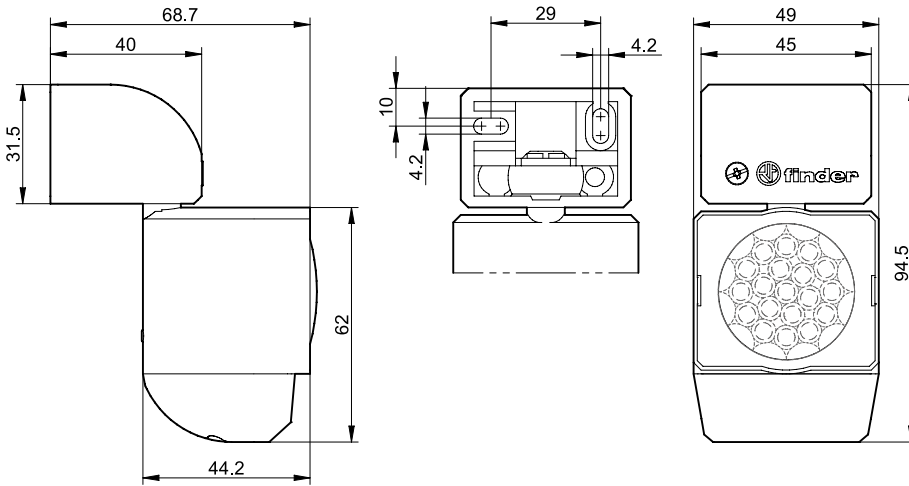
At an installation height of 2.8 meters the area of survey will reduce at: 2 x 2 meters

Outline drawings

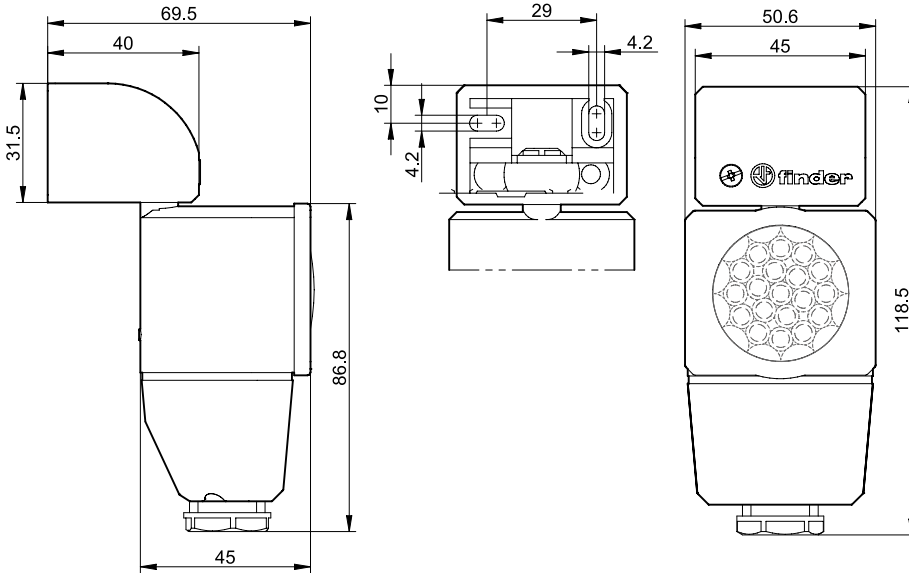
Type	Suspended ceiling mounting	Recess mounting	Surface mounting
18.21			
18.31			
18.31...003x			
18.41			
18.51 18.5D 18.51...B300			

Outline drawings

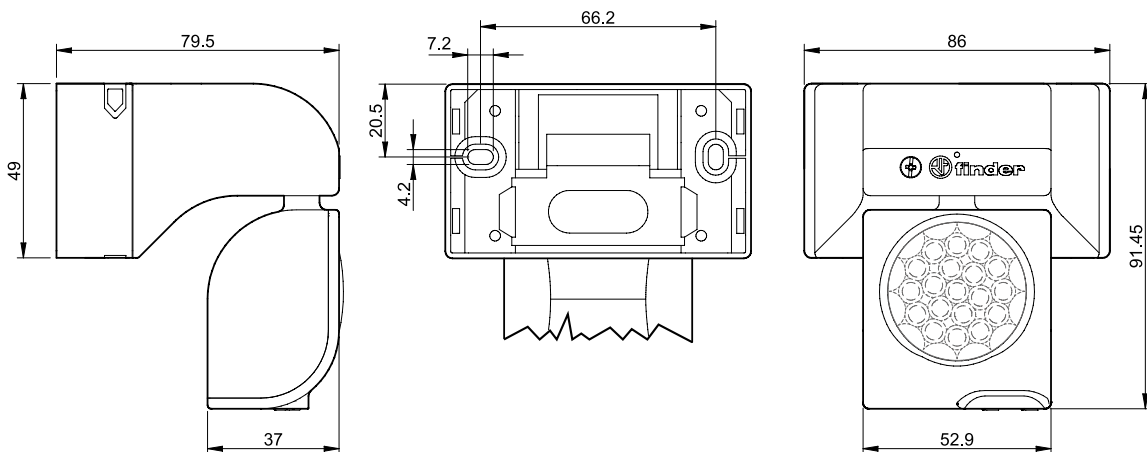
Type 18.01



Type 18.11

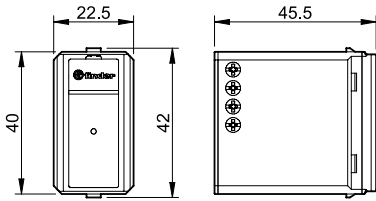


Type 18.A1

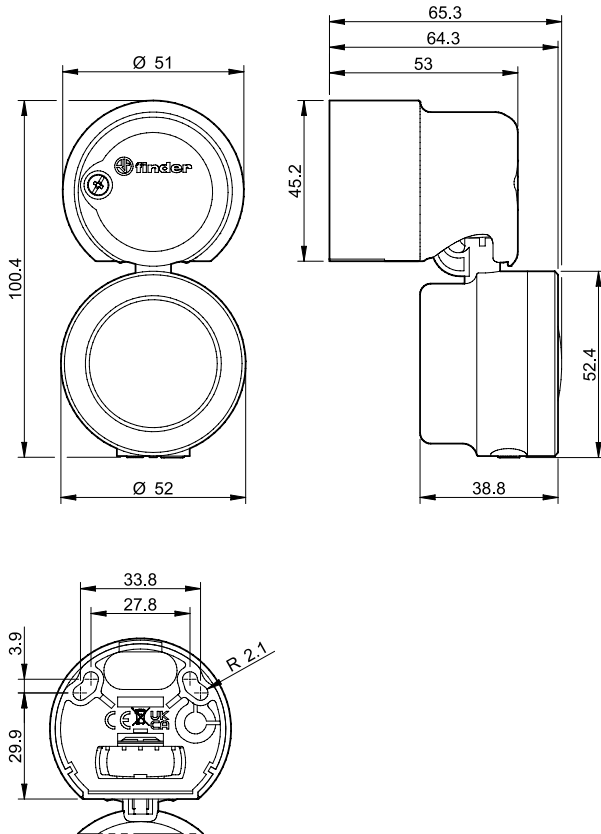


## Outline drawings

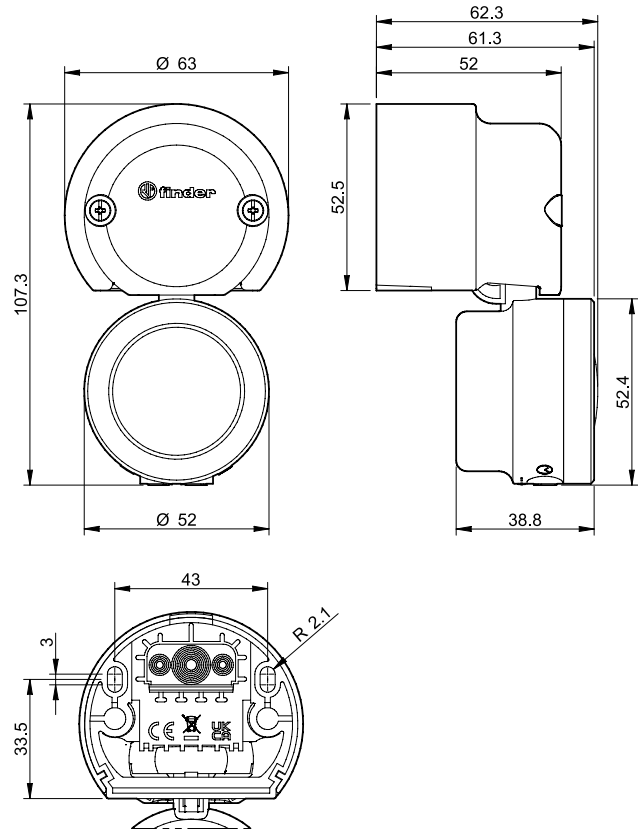
Type 18.91



Type 18.71

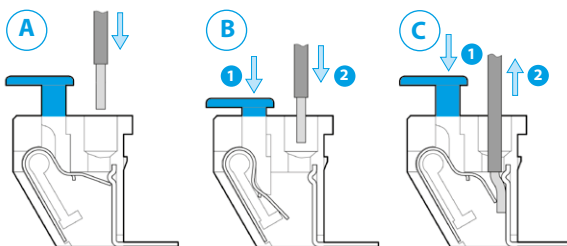


Type 18.81



## Push-in terminals for 18.41, 18.51, 18.5D 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 mm<sup>2</sup>.

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