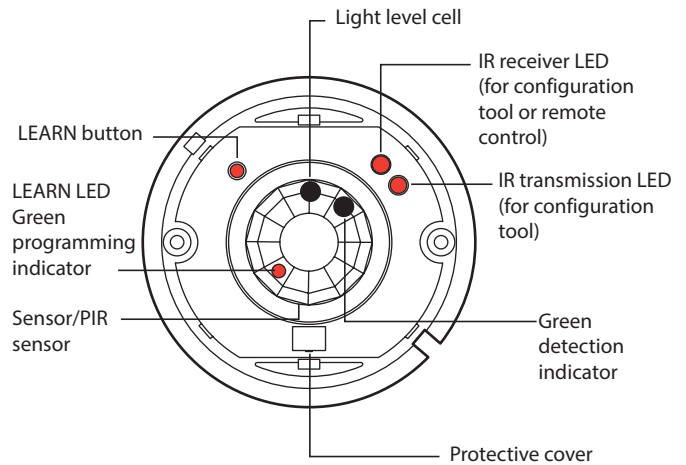# PIR switch sensor

1. USE

This device allows a light source to be controlled automatically through the detection of movement in the surveillance zone.

It is equipped with a "presence" output for ventilation or lighting control. This output is separate from the level of light.

Motion sensor with 360° detection angle.

Detection type: infrared (PIR)

Mounting type: ceiling

2. TECHNICAL CHARACTERISTICS

Voltage: 100 - 240 V~

Frequency: 50/60 Hz

No-load power consumption: 0.8 W

Output via normally open contact connected to the phase

Wiring: 2 x 2.5 mm²

Drilling diameter: 85 mm without flush-mounting box
85 mm with flush-mounting box

Weight: 114 g

Impact resistance: IK04

Penetration by solid and liquid matter: IP20 (unmounted)
IP41 (mounted)

Usage temperature: - 5°C to + 45°C

Storage temperature: - 20°C to + 70°C

2. TECHNICAL CHARACTERISTICS (continued)

Cover removed

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
230 V~	2000 W	1000 VA		10x(2x36 W)		500 VA	1000 VA		500 VA	I max. ≤ 2A
		8.5 A		4.3 A		4.3 A		2.1 A		2.1 A	
110 V~	1000 W	500 VA		5x(2x36 W)		250 VA	500 VA		250 VA	

	⑪	⑩
	Ⓜ	
230 V~	2000 W	I max. ≤ 2A
		8.5 A
110 V~	1000 W	
U ≤ 30 V⎓	2 A max.	

1 - Halogen bulb

2 - ELV halogen bulb with separate electronic ballast

3 - ELV halogen bulb with separate ferromagnetic ballast

4 - Fluorescent tube with separate ferromagnetic ballast

5 - ELV fluorescent tube with separate electronic ballast

6 - Compact fluorescent bulb with built-in electronic ballast

7 - Compact fluorescent bulb with separate ferromagnetic ballast

8 - Compact fluorescent bulb with separate electronic ballast
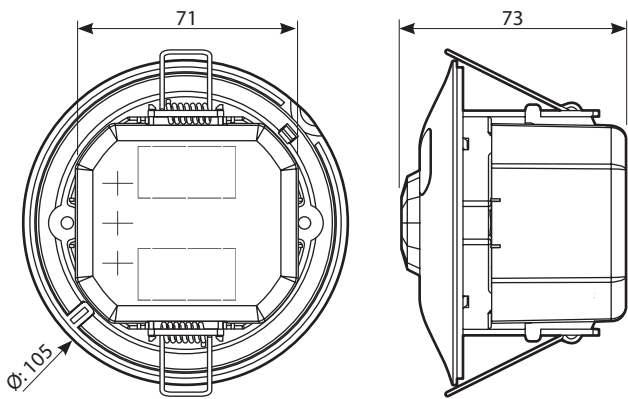
9 - LED bulb

10 - Contactor

11 - Motor

3. DIMENSIONS

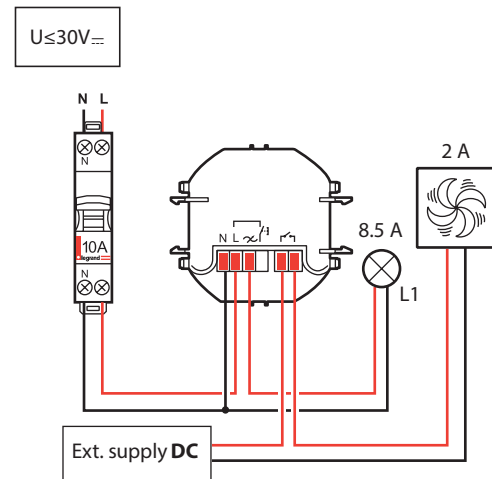Without protective cover

66

72

62

Ø:105
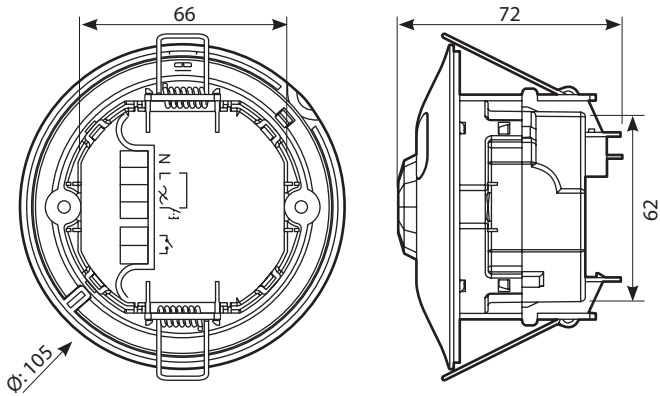
With protective cover

71

73

Ø:105

4. CONNECTION

Number of terminals: 6
Type of terminals: automatic
Terminal capacity: 2 x 2.5 mm^2
Stripping length: 8 mm

■ **4.1 Wiring with auxiliary control:**

230
110 **VAC**

N L   N L

6A   10A

2 A

8.5 A

L1

PB

100 m max.

U≤30V⎓

N L

10A

2 A

8.5 A

L1

Ext. supply **DC**

Wiring

Technical data sheet: S000074405EN-2

Updated: 10/02/2016

Created: 18/01/2013

L1 legrand

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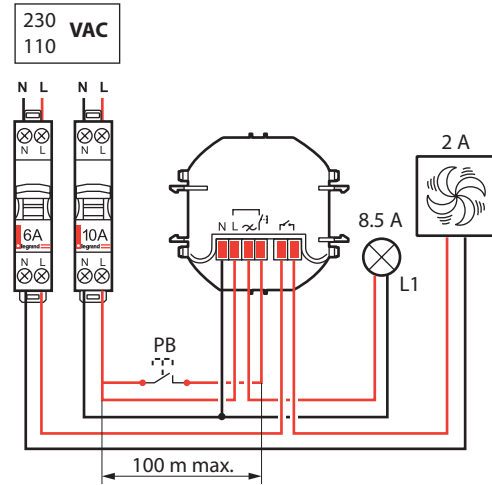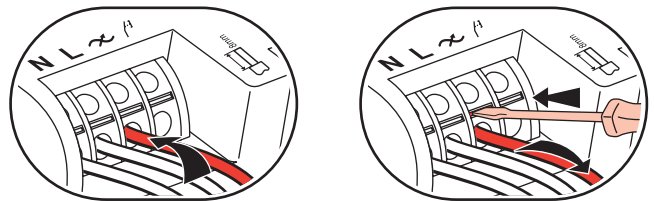
4. CONNECTION (continued)

■ 4.2 Wiring for a single load connected in parallel

■ 4.3 Wiring for several loads connected in parallel

5. INSTALLATION

5. INSTALLATION (continued)

■ 5.1 Sensor positioning

■ 5.2 Recommended light exposure

2.5 m

4 m

6. REMOVAL

L1 legrand

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7. OPERATION

Manual ON/Automatic OFF mode
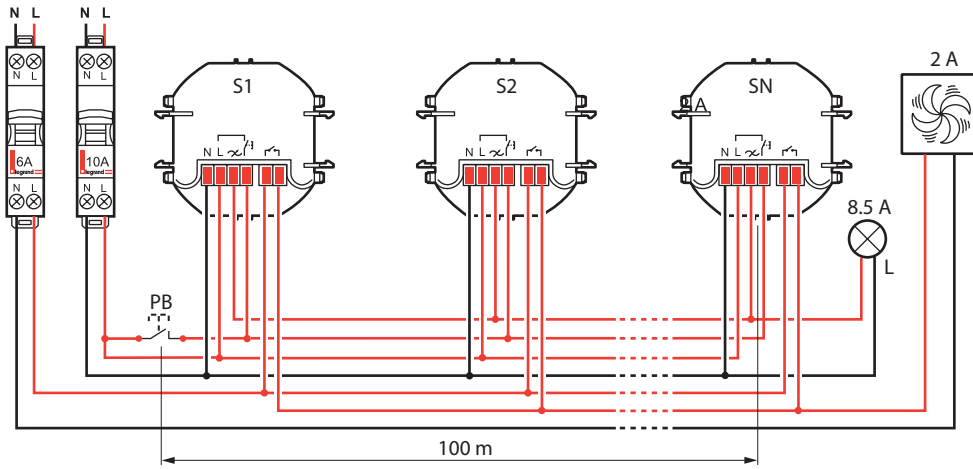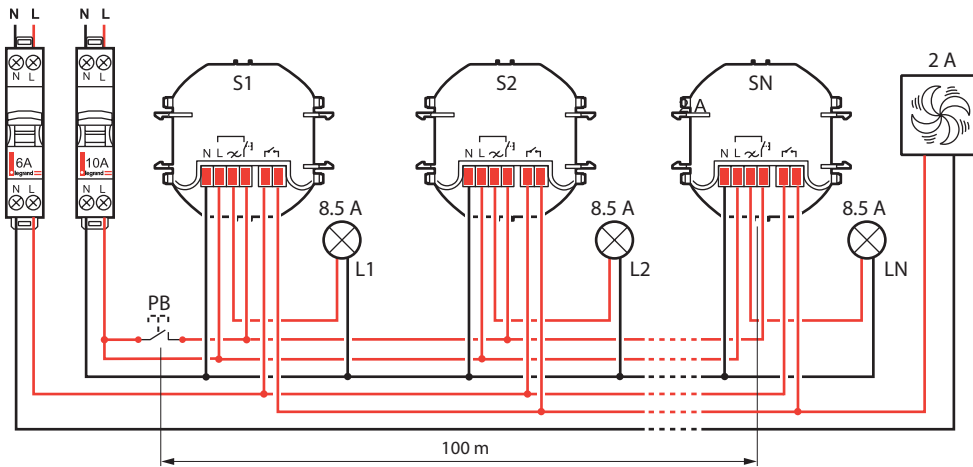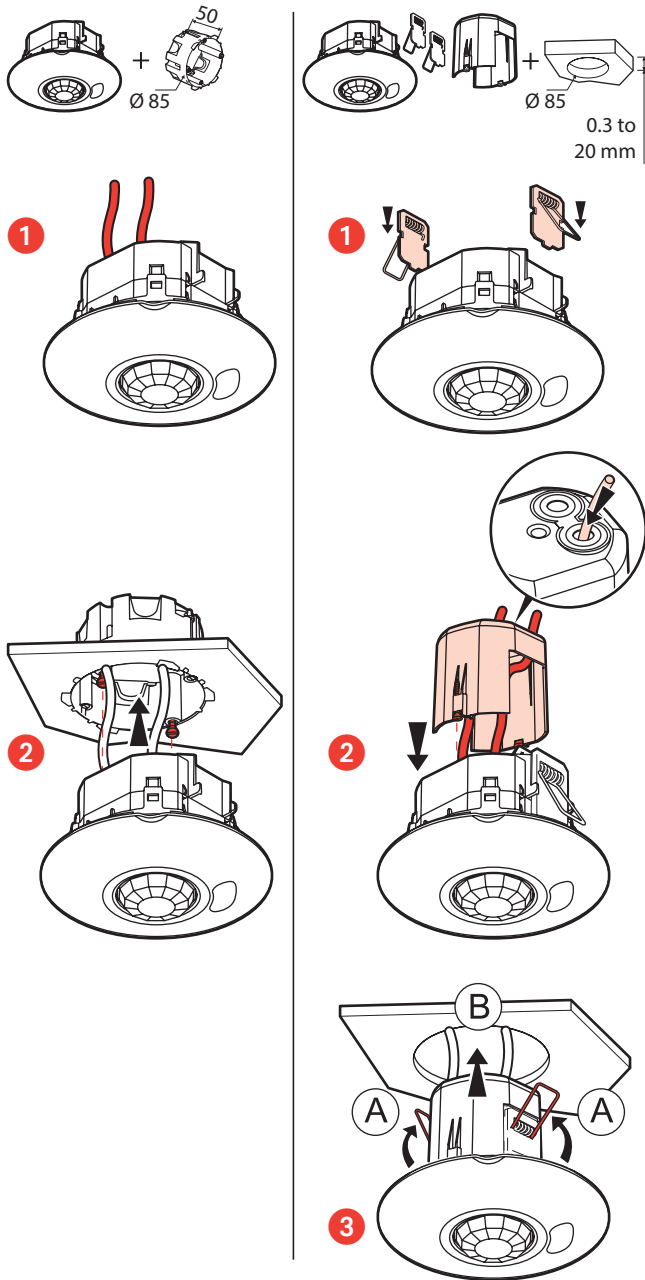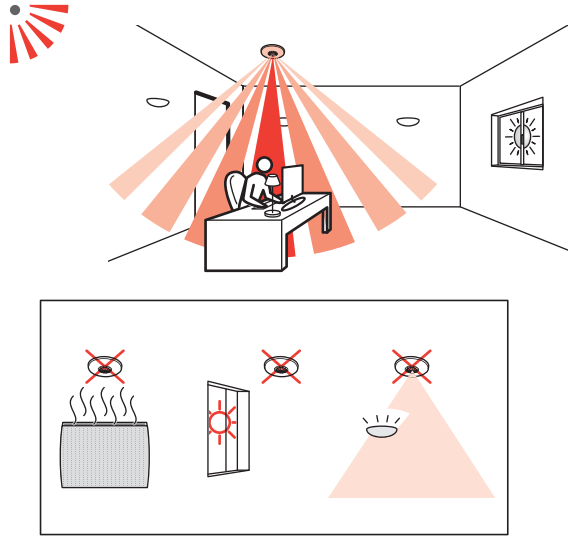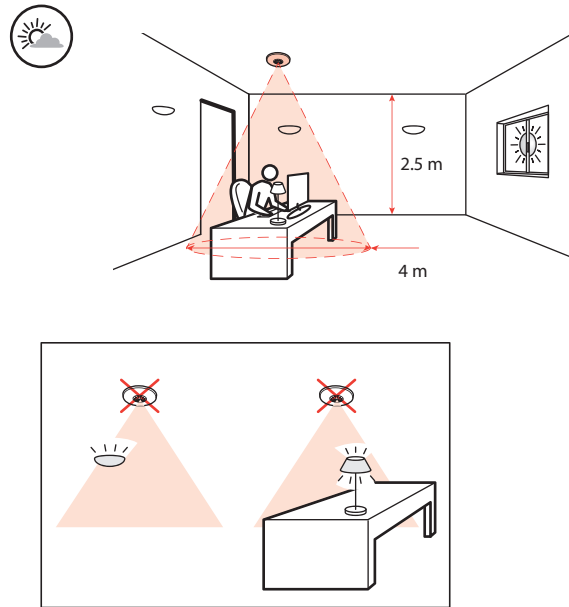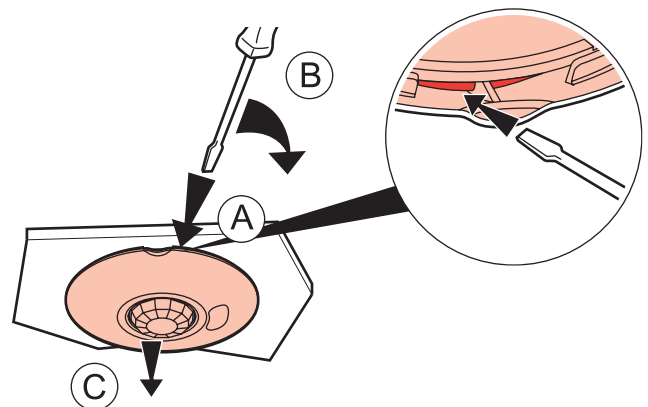Pressing the auxiliary control allows the load to be switched on or off manually. If the control is not pressed, the sensor will cut off the load at the end of the time delay or when the light level threshold has been reached.

Auto ON/OFF mode:
The load will be switched on and off automatically.

Option: It is possible to control the sensor by infrared remote control using Cat. Nos. 0 882 00/01/20/31/32/33.

■ 7.1 More than one sensor and more than one load

The products can be synchronised in two steps:

- one long press (>1s) - all the sensors (S) change to ON

- one short press - all the sensors (S) invert their state from OFF to ON and ON to OFF

L1 OFF / L2 OFF / Ln OFF	S1 OFF / S2 OFF / Sn OFF	PB < 1 s	L1 ON / L2 ON / Ln ON	S1 ON / S2 ON / Sn ON
L1 ON / L2 ON / Ln ON	S1 ON / S2 ON / Sn ON	PB < 1 s	L1 OFF / L2 OFF / Ln OFF	S1 OFF / S2 OFF / Sn OFF
L1 ON / L2 OFF / Ln OFF	S1 ON / S2 OFF / Sn OFF	PB < 1 s	L1 OFF / L2 ON / Ln ON	S1 OFF / S2 ON / Sn ON
L1 ON / L2 OFF / Ln OFF	S1 ON / S2 OFF / Sn OFF	PB > 1 s + < 1 s	L1 OFF / L2 OFF / Ln OFF	S1 OFF / S2 OFF / Sn OFF
L1 ON / L2 OFF / Ln OFF	S1 ON / S2 OFF / Sn OFF	PB > 1 s	L1 ON / L2 ON / Ln ON	S1 ON / S2 ON / Sn ON

7. OPERATION (continued)

■ 6.1 Several sensors connected to a single load

L OFF	S1 OFF / S2 OFF / Sn OFF	PB < 1 s	L ON	S1 ON / S2 ON / Sn ON
L ON	S1 ON / S2 ON / Sn ON	PB < 1 s	L OFF	S1 OFF / S2 OFF / Sn OFF
L ON	S1 ON / S2 OFF / Sn OFF	PB < 1 s	L ON	S1 OFF / S2 ON / Sn ON
L ON	S1 ON / S2 OFF / Sn OFF	PB > 1 s + < 1 s	L OFF	S1 OFF / S2 OFF / Sn OFF
L ON	S1 ON / S2 OFF / Sn OFF	PB > 1 s	L ON	S1 ON / S2 ON / Sn ON

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8. SETTINGS

■ 8.1 Detection parameters

Sensor parameter		Default value	Modifiable parameters	Configuration tools	
				0 882 30	0 882 35
Time delay		15 min	3, 5, 10, 15, 20 min	–	✓
			0 - 59 min 59 s	✓	–
Sensitivity		PIR (very high)	Low, medium, high, very high	✓	✓
Modes	**Auto on/Auto off**	Inactive	Activate/ Deactivate	✓	✓
	Walk-through mode	Active	Activate/ Deactivate	✓	✓
	Manual on/ Auto off	Inactive	Activate/ Deactivate	✓	✓
Detection system	**Initial**	PIR	Non-modifiable	✓	–
	Maintain	PIR	Non-modifiable	✓	–
	Restart	PIR	PIR, Deactivate	✓	–
Alarm		Inactive	Activate/ Deactivate	✓	–

🕐 **Time delay:** Length of time the load is on after detection.

📶 **Sensitivity:** Detection range setting.

Modes:

🚶 **Auto on/Auto off mode:**
Automatic switch-on:
- On detection of presence if there is insufficient natural light.
Automatic switch-off:
- If no presence is detected and at the end of the set time delay.
- Or if there is sufficient natural light (regulation activated)
Another detection causes automatic switch-on if there is insufficient light.

🚶 **Walk-through mode:**
- If no presence is detected in the 20 seconds following an initial detection, the product will cut off the load after 3 minutes.
- If another presence is detected in the 3 minutes following initial detection, the device will cut off the load at the end of the set time delay.

🚶 **Manual on/Auto off mode:**
Manual switch-on, automatic switch-off:
- When no presence is detected and at the end of the set time delay.

After switch-off, any new detection within a 30 second period triggers an automatic switch-on. The Restart function must be activated.
After 30 seconds the device is switched on via a manual switch.

Detection system:

Initial detection: The load is switched on as soon as the first detection occurs if the natural light level is below the light level threshold.

Maintain: The load remains active if another presence is detected.

Restart: In manual mode. After switch-off, any new detection within a 30 second period triggers an automatic switch-on.
After 30 seconds the device must be switched on manually.
Possible in Manual on/Auto off mode only.

Alarm: An audible signal is emitted before switch-off (1 minute before, then 30 seconds, then 10 seconds).

8. SETTINGS (continued)

■ 8.2 Light parameters

Sensor parameter		Default value	Modifiable parameters	Configuration tools	
				0 882 30	0 882 35
Light level threshold		500 lux	20, 100, 300, 500, 1000 lux	–	✓
			0 - 1275 lux	✓	–
Advanced mode	**Calibration**	–	0 - 99995 lux	✓	–
	Regulation	Active	Activate/ Deactivate	✓	–
	Light contribution	Auto	Auto - 1275 lux	✓	–

☀ **Light level threshold:** Value at which the load comes on if the natural light level is less than the setting.

👁 **Eye function:** Value 0 (eye on configuration tool 0 882 30) is used to save the ambient light level in the room as the light level threshold.

Advanced mode:

✺ **Calibration:** The ambient light level measured with a luxmeter must then be transmitted to the sensor.

♺ **Regulation:** Automatic switch-off of the load 10 minutes after the light level threshold is exceeded with an additional safety threshold (to avoid lights switching off at the wrong moment).

Light contribution: Quantity of additional lux provided by the load being switched on.
When the light contribution parameter is set to "Auto" (value 0) on the configuration tool Cat. No. 0 882 30, the sensor automatically calculates the light contribution.

■ 8.3 Modifying the parameters using the configuration tools
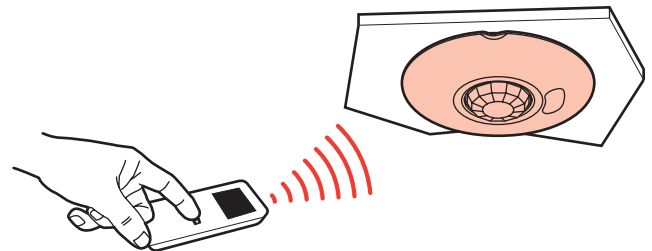
• 0 882 35: Simplified configuration tool
• 0 882 30: Advanced configuration tool
When the sensor receives an IR command via a configuration tool, it emits a beep confirming that the modification has been taken into account.
For more information about setting parameters, refer to the data sheet for the configuration tool Cat. No. 0 882 30.
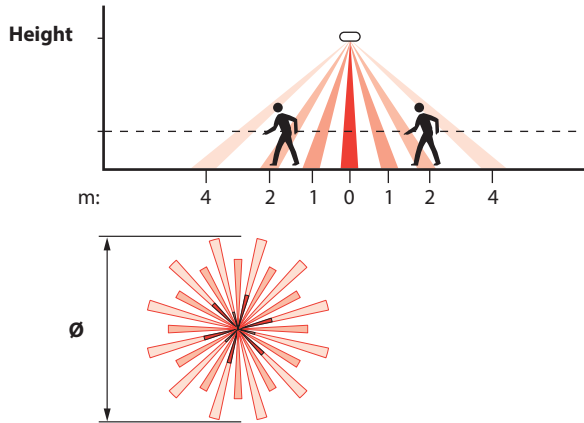
- Restore to factory settings:
1st press: Short press on LEARN: the LED flashes slowly.
2nd press: Press and hold down LEARN for 10 seconds until the LED flashes quickly.

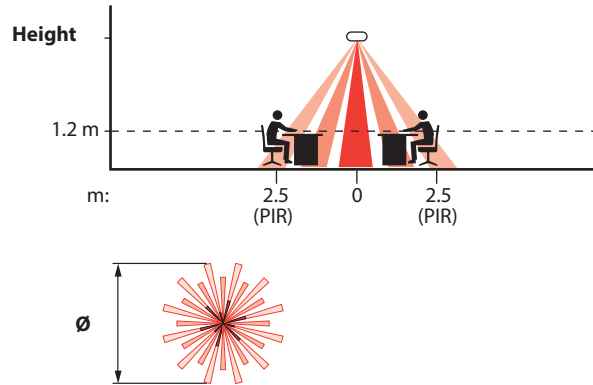## CONTENTS   6/8

9. PERFORMANCE

■ 9.1 Walk-through

Height (m)	Sensitivity Low (25%) Ø (m)	Sensitivity Medium (50%) Ø (m)
2.5	4	6
3	5.5	6.5
4	6.5	7.5
5	6	10.5
6	4	5.5

Height (m)	Sensitivity High (75%) Ø (m)	Sensitivity Very high (100%) Ø (m)
2.5	6.5	8
3	8.5	11.5
4	12.5	14
5	12	16.5
6	8.5	12.5

9. PERFORMANCE (continued)

■ 9.2 Presence

Height (m)	Sensitivity Low (25%) Ø (m)	Sensitivity Medium (50%) Ø (m)
2.5	2.5	4
3	3.5	4
4	4	5
5	4	6.5
6	2.5	3.5

Height (m)	Sensitivity High (75%) Ø (m)	Sensitivity Very high (100%) Ø (m)
2.5	4	5
3	5	7
4	8	9
5	7.5	10
6	5	8

10. CARE

Keep the lens clean.
Clean the surface with a cloth.
Do not use acetone, tar-removing cleaning agents or trichloroethylene.
Resistant to the following products: - Hexane (EN 60669-1)
                                             - Methylated spirit
                                             - Soapy water
                                             - Diluted ammonia
                                             - Bleach diluted to 10%
                                             - Window-cleaning products

Note:
Always test before using other special cleaning products.

11. STANDARDS

Directive: CE

Product standards: IEC 60669-2-1

Environmental standards:
- European Directive 2002/96/EC:

  WEEE (Waste Electrical and Electronic Equipment)
- European Directive 2002/95/EC:

  RoHS (Restriction of Hazardous Substances)

12. TROUBLESHOOTING

PROBLEM	CAUSES	SOLUTIONS
Lighting stays on when there is no-one present	Sources of interference, such as draughts, vibration or radiators, may cause nuisance tripping	1- Reduce the sensitivity level 2- If the interference continues: using the configuration tool, go into the Detection system parameters, select Maintain and then choose PIR and US 3- If the interference still continues, move the sensor away from the source(s) of interference
Lighting does not switch off during the day when there is an adequate level of natural light	Regulation function not active Light level threshold set too high Light contribution too high	Activate the regulation function Reduce the light level threshold Check that the sensor is positioned correctly in relation to the window Decrease the power of the luminaires
Lighting switches off when there are people present and the natural light level is not adequate (darkness)	Time delay too short Detection sensitivity too low Light level threshold too low	Increase the time delay 10 to 1 minutes is recommended for work areas Increase the sensitivity Move the sensor closer to the work area Increase the threshold