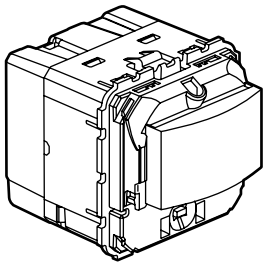
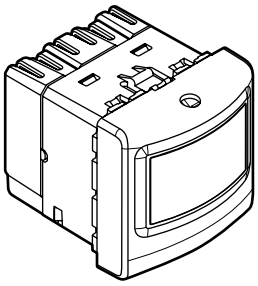
Switch sensor - PIR
SCS

Catalogue number(s): 0 672 25 - 0 784 85 - 5 740 46/96



0 672 25



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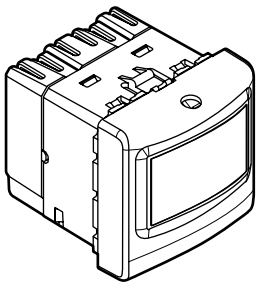


5 740 46
5 740 96

CONTENTS **Page**

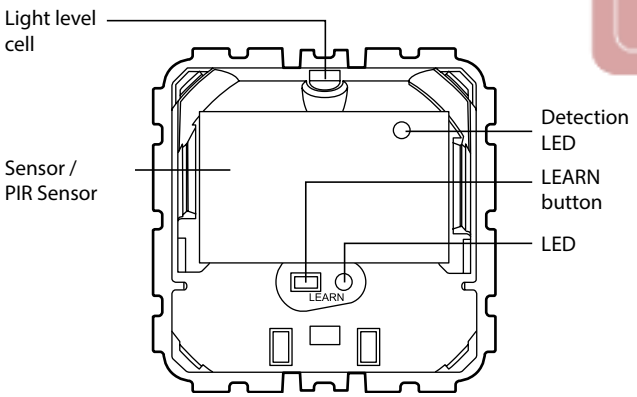
1. USE

This device allows a light source to be controlled automatically through the detection of presence in the surveillance zone.
Presence sensor with 180° detection angle.
Detection type: infrared (PIR)
Type of fitting: wall flush-mounting

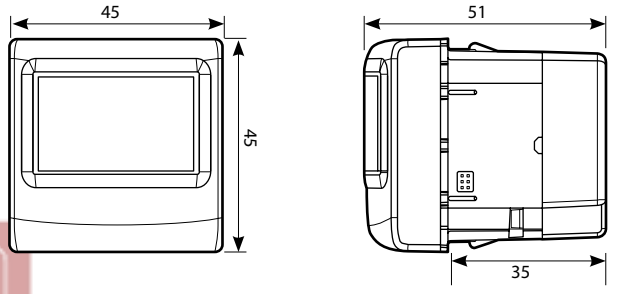
2. TECHNICAL FEATURES

Voltage: 27 V⎓
No-load power consumption: 12 mA
Connection between the sensor and the controller: BUS/SCS cable
Wiring: 2 x 0.35 mm²
Flush-mount box: 40 mm min.
Weight: 60 g
Impact resistance: IK04
Penetration by solid and liquid matter: - IP20 mechanism alone
- IP41 installed product with finger plate

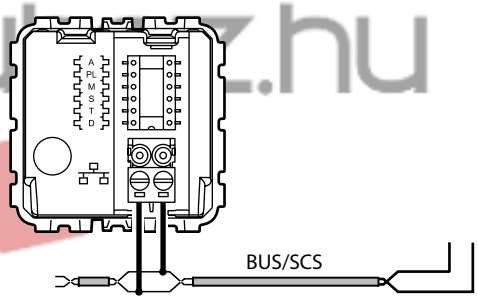
Usage temperature: - 5°C to + 45°C
Storage temperature: - 20°C to + 70°C
Type of terminals: screw



3. DIMENSIONS



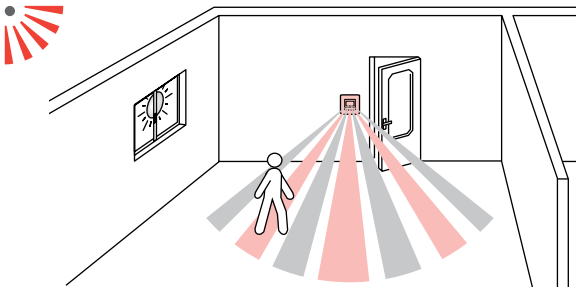
4. CONNECTION

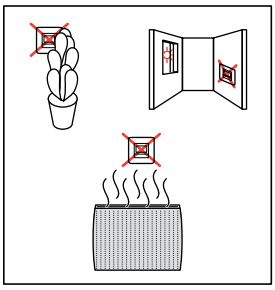


Pressing the auxiliary control enables the load to be switched on or off manually. If the control is not pressed, the sensor will cut off the load at the end of the time delay or when the light level threshold has been reached.

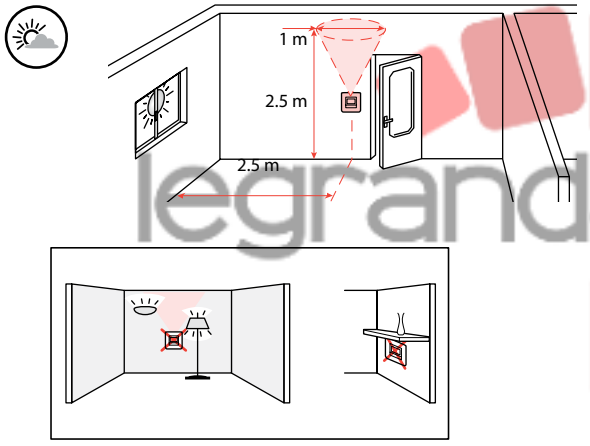
5. INSTALLATION

■ 5.1 Sensor positioning

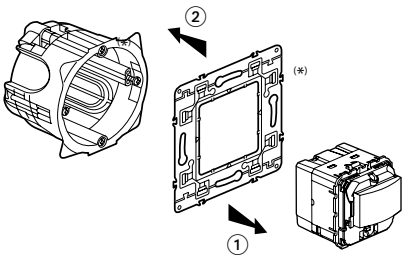




■ 5.2 Recommendation for measuring the light



■ 5.3 Positioning



(*) Not supplied

6. OPERATION

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 20/31.

7. SETTINGS

■ 7.1 Detection parameters

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

Sensitivity: Detection range setting.

Modes:

Sensor parameters		Default value	Modifiable parameters	Configuration tools	
				0 882 30	0 882 35
Time delay		15 min	3, 5, 10, 15, 20 min	–	✓
			30 sec - 255 hr 59 min 59 sec	✓	–
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	✓	✓
	Partial on/ Group off	Inactive	Activate/ Deactivate	✓	–
Detection system	Initial	PIR	Not modifiable	✓	–
	Maintain	PIR	Not modifiable	✓	–
	Restart	PIR	PIR, Deactivate	✓	–
Alarm		Inactive	Activate/ Deactivate	✓	–

Auto on/Auto off mode:
Automatic switch-on:
- On detection of presence if the natural light level is insufficient.

Automatic switch-off:
- If no presence is detected and at the end of the set time delay.
- Or if the natural light level is sufficient (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 supply to 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.

7. SETTINGS (continued)

■ 7.1 Detection parameters (continued)

Partial on/Group off mode:
Possibility of controlling one or more lighting points individually.
In this mode it is essential that a lighting group is created:
- either by manual teach phase.
- or from the advanced configuration tool Cat. No. 882 30 using the function "PnL capteur" (PnL sensor).
The sensor switches on the loads that are linked to it via the actuator. Where there is no detection and at the end of the time delay it switches off all loads in the group to which it belongs.

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.

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

■ 7.2 Light parameters

Sensor parameters		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	Inactive	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.

Caution:
At 1275 lux, the device becomes a motion sensor.

Advanced mode:

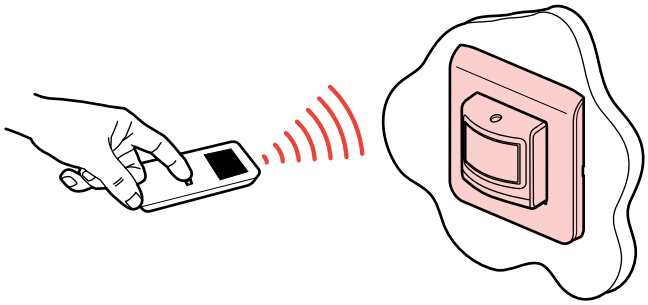
Calibration: The ambient light level measured with a luxmeter must then be transmitted to the sensor (see data sheet Cat. No. 0 882 30).

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 configuration tool 0 882 30, the sensor automatically calculates the light contribution.

7. SETTINGS (continued)

■ 7.3 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.

Range: 1 m.
The potentiometers are active by default. Using a configuration tool de-activates all potentiometers.
To re-activate them, re-start the product.

- Restore to factory settings:
1st press: Short press on LEARN: the LED flashes slowly.
2nd press: Keep LEARN pressed down for 10 seconds until the LED flashes quickly.

8. CONFIGURATION

■ 8.1 Physical configuration

BUS SCS sensor physical configuration
The physical configuration only authorises point-to-point addressing: only one actuator may be controlled by the sensor.
A: Area (0 –A)
PL: Point light (0 – F)
M: Mode (0 – 4)
S: Sensitivity of the motion sensor (0 – 3)
T: Time delay (0 – 9)
D: Light level threshold or daylight set point (0 – 5)

Configurators A and PL: addressing
Configurators A and PL give the address of the actuator to be controlled.

NB:
- If the product does not have configurators A and PL in position, it is not configured.
- The configuration A=0 and PL=0 does not exist

Configurator M: modes
Configurator M determines the product's operating modes:

Configurator M	Mode
No configurator	Automatic on/off mode with no regulation but with presence detection
1	Automatic on/off mode with light level measurement but with no presence detection
2	Supervision mode
3	Automatic on/off mode with regulation and with presence detection
4	On/off manual mode with regulation but with no detection

8. CONFIGURATION (continued)

■ 8.1 Physical configuration (continued)

Configurator S: sensor sensitivity

The sensitivity of the sensor can be adjusted using configurator S:
If the sensor is a Dual-Tech sensor, the sensitivity setting applies to all technologies.

Configurator S	Sensor sensitivity
No configurator	Low
1	Medium
2	High
3	Very high

Configurator T: time delay

Time for which the load is switched ON:

Configurator T	Time Delay (in min)
No configurator	15
1	0.5
2	1
3	2
4	5
5	10
6	15
7	20
8	30
9	40

Configurator D: light level threshold

The value in lux of the light level threshold (or set point) is set by configurator D:

Configurator D	Lux
No configurator	Wall surface-mount: 300
	Suspended ceiling: 500
1	20
2	100
3	300
4	500
5	1000

■ 8.2 Virtual configuration

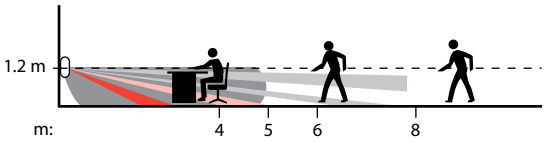
The sensor is programmed via the Virtual Configurator software which enables the modification/programming of all the sensor's parameters.

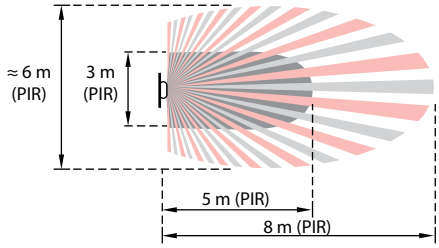
■ 8.3 Lighting Management Configuration

- Plug' n Go
  (sensor connected to a controller input in the suspended ceiling)
- Push'n Learn

9. PERFORMANCE

Height





■ 8.1 PIR detection (Movement)

Sensitivity	Ø (m)
Low (25%)	7
Medium (50%)	8
High (75%)	10
Very high (100%)	12

■ 8.2 PIR detection (Presence)

Sensitivity	Ø (m)
Low (25%)	1
Medium (50%)	2
High (75%)	4
Very high (100%)	5

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.

Caution:

Always test before using other special cleaning products.

11. STANDARDS

Directive: CE

Installation standards: NFC 15-100

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).
- Decrees and/or regulations: Public buildings
  Workplace buildings
  High-rise buildings

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, use the configuration tool and go into the detection system parameters, select Maintain and then choose PIR detection 3- If the interference still continues, move the sensor away from sources 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 is 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