

Sensor

Sensor to detect presence and/or the brightness
(Up to 8 m installation height /Circular detection zone)

iN

DESCRIPTION

This sensor is designed to control dimming receivers (P8 R DALI N and P8 R2 DALI N) in the SMART system, where it continuously controls the levels of their outputs based on the ambient light level. One sensor can control two groups of luminaires located near to or further from windows. The device includes a movement sensor that can automatically turn luminaires on or off based on the movement of people in the monitored area (Fig. 1).

Together with a suitable receiver of the SMART system, sensor can be used as a movement detector for remote automatic contactless control of light, for example.

The sensing properties of the light and movement sensor were developed for all application in which a large detection area is needed.

Ideal for: markets, production plants and logistic centers.

FUNCTION

Light sensor

This function measures the average level of light in the area where movement is sensed, too (Fig. 1). This value is compared with the preset light level (set with SMART Assistant) and if the deviation is large enough, it will send a signal to the receivers controlling the ballast to increase or decrease the level of the luminaires output. The light sensor can be used independently or in collaboration with other sensors. It can be controlled manually by SMART transmitters. Or it can work automatically therefore activated by the integrated movement sensor.

Movement sensor

The movement sensor responds to the heat of moving people, animals or objects. If, at the same time, the ambient light intensity is lower than the set intensity, the regulator transmits a coded signal for the cooperating receiver to turn on the controlled appliance.

INSTALLATION

The device must be connected to the mains only by a specialized technician with appropriate electrical qualifications.

Turn off the mains voltage supply before initiating installation work!

Connecting and installation

The device is designed for surface installation. Turn the cover counterclockwise to remove it from the sensor body (Fig. 2). Attach the regulator to the installation box or directly to the ceiling using screws and dowels. See Fig. 3 for the position of the input hole for connection cables as compared to the installation holes. You can use installation trunking to run the supply cables to sensor. In that case, break off the pre-marked rectangular flap in the body base.

See Fig. 4 for the electrical connections.

When you finish the connection and setting of the sensor, attach the cover and turn it clockwise to fix it. Any regulator cover within reach of people must be protected against removal by at least one supplied screw, 2.2 x 4.5 mm, to be screwed into the pre-moulded hole between the base and the regulator cover.

Note:

For all passive infrared switches, physics determines that maximum detection sensitivity is achieved in tangential movements (i.e. perpendicular to the line between the sensor and the monitored object). The approximate range depending on the monitored person's movement direction is specified in Fig. 1 (installation height of 2.5 m). If the installation height is greater, the detection zone expands appropriately (up to diam. 16 m at an installation height of 8 m).

Do not install the device near heating elements, lamps or other heat sources.

ADJUSTING ELEMENTS

There are three adjusting elements under sensor cover (Fig. 4):

a) SENS (function setting)

Use this element to set the on/off mode of the regulator using the integrated movement sensor. In the "+" position, the movement sensor turns on the light level regulation at the normal level and turns off the regulation; in the center position, the movement sensor only turns off the regulation; in the "-" position, the movement sensor does not influence the regulation (no control).

b) LIGHT (ambient light intensity)

Fig. 1

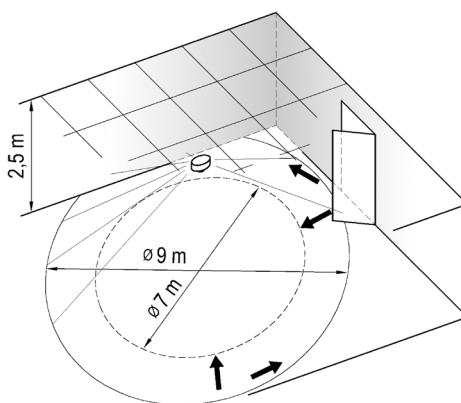
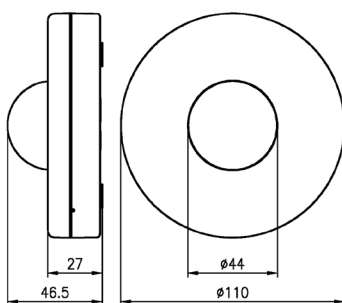


Fig. 2



The influence of ambient light can be set from maximum (C – the movement sensor works only in darkness) to full override (X – the movement sensor works even in full daylight).

c) TIME (switch-off delay)

The switch-off delay can be set between 5 s and 105 minutes; the center position corresponds to approximately 10 minutes.

Note:

Using remote management, the adjustment elements can be disabled and the functions of the movement sensor, ambient light influence and the required switch-off delay can be adjusted remotely.

REMOTE CONFIGURATION

The sensor is designed to be configured remotely, by using the software SMART Assistant in relation with P8 TR USB transmitter.

Note:

For an easier identification of the sensor it is possible to activate from the software a temporary light signal (green and red LEDs will blink under the sensor lens).

Programming and creating links with other SMART devices can be done in the configuration software SMART Assistant with the use of the transmitter P8 TR USB.

You can use remote configuration to set other functions and parameters that cannot be accessed otherwise:

- Configure transmitters to control the light sensor manually.
- Configure transmitters to control the movement sensor.
- Setting one sensor with different light levels for two groups of lighting fixtures.
- Disable (enable) search mode.
- Wireless transmission of the measured light intensity.
- Set the exclusive use of light or movement detection, or use them in combination.
- Set the movement sensor mode in "ON + OFF" or "On-ly ON"

Set the light sensor mode in:

NORMAL – normal-level regulation mode

The light level regulation is on and regulates to the preset normal light level value.

LOW – low-level regulation mode

The light level regulation is on and regulates to the preset decreased light level value.

AUTO – automatic regulation mode

Use the automatic mode to create combined functions controlled from multiple transmitters of the SMART range and, at the same time, use light level regulation functions at two

Fig. 3

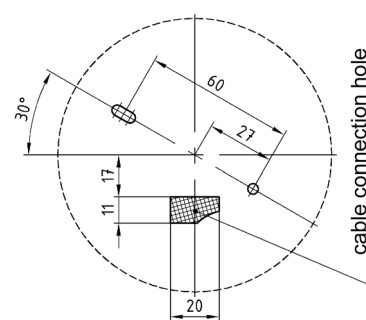
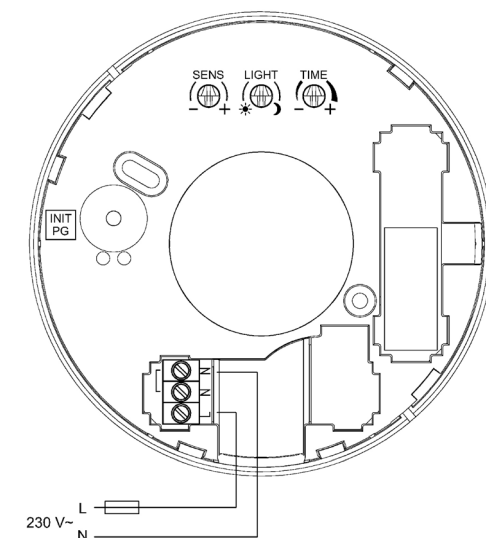


Fig. 4



levels (NORMAL and LOW).

DIMM – dimmer mode

The light level regulation is off. Regulator output signals are set for the required value independently of the ambient light level.

By default, the sensor is set to the so-called state of time-limited search. This means that it can be identified by the software SMART Assistant only within the first five minutes from its connection to the supply voltage. To enable time-unlimited search, before you connect the sensor to the supply voltage, press and hold the INIT PG button until the regulator indicates the change by three simultaneous flashes of the green and red LED under the sensor lens (! Attention, a permanent identification can be mis-used to gain unauthorized access to the remote configuration !). Similarly, use this procedure to return to the time-limited search; the only difference is indication by only one blink. The current setting of the search mode used in the sensor can be ascertained while connecting it to the supply voltage. Three short blinks of both the green and red LEDs indicate unlimited search, one short blink indicates time-limited search, no short blinking indicates searching is disabled.

RESET TO DEFAULTS

If you need to cancel all function and parameter settings, you can return to the manufacturer's default settings:

- Press and hold the INIT PG button on the OL regulator. Then connect the OL regulator to the supply voltage, until both red and green LEDs under the regulator lens light up (approx. 10 s).
- While the LEDs are lit up (approx. 3 s), release the button and press it briefly again.
- Resetting to the manufacturer's defaults will be indicated by slow flashing of the green LED.

Note:

When resetting to defaults, all programmed codes will be deleted from the OL regulator memory as well!!!

Technical data	P8 TR PS W
Power supply:	230 V \pm 10 % 50 Hz
Switch-off delay:	5 s to 105 min
Illuminance:	0,5 to 12 288 lx
Frequency:	868 MHz
Range:	150 m In open space
Number of codes	2 ²⁴
Number	32
Operating temperature:	- 10 to + 35 °C
Terminal block:	max. 2,5 mm ²
IP protection:	IP 40 according to EN 60529

It is forbidden to do any technical modifikations on the device!