

# Presence detector with luminosity sensor for ceiling mounting - detection area of 30m diameter

### ZPDC30LV2 TECHNICAL DOCUMENTATION

#### **FEATURES**

- Presence Detector through PIR technology with four adjustable-sensitivity sectors
- · Lighting level sensor with human eye spectral sensitivity
- Built-in temperature sensor
- 6 presence detector channels
- · 2 constant light regulation channels
- Occupancy detection
- 10 logic functions
- Thermostat
- Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- Dimensions Ø 85 x 47 mm
- Surface-mounted or flush-mounted
- Conformity with the CE, UKCA directives (marks on the back side)

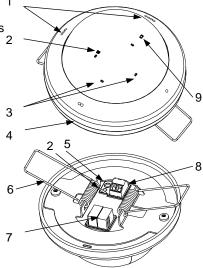


Figure 1: Presentia C v2

1. Orientation marks	2. Programming LED	3. 4x Detection notification LED	4. Base	<ol><li>Programming button</li></ol>
<ol><li>Retaining spring</li></ol>	<ol><li>KNX connector</li></ol>	8. Auxiliary Sensor Input (without use)	<ol><li>Built-in temperature sen</li></ol>	sor

Programming button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode.

Programming LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it emits a red flash following a blue blinking sequence during the motion sensor initialization.

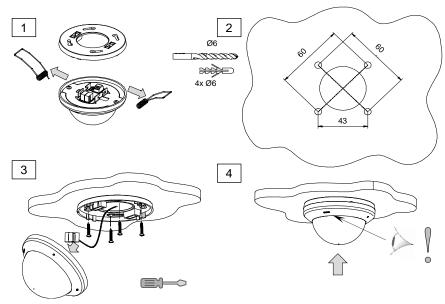
GENERAL SPECIFICATIONS CONCEPT			DESCRIPTION			
Type of device				Electric operation control device		
71	Voltage (typical)		29 VDC SELV			
KNX supply	Voltage range		21-31 VDC			
		Voltage	mA	mW		
	Maximum	29 VDC (typical)	7	203		
	consumption	24 VDC <sup>1</sup>	10	240		
	Connection type		Typical TP1 bus connector for 0.8 mm Ø rigid cable			
External power supply			Not required	Not required		
Operation ten			0 +35 °C	0 +35 °C		
Storage temp	erature		-20 +55 °C	-20 +55 °C		
Operation hu			5 95%	5 95%		
Storage humidity			5 95%	5 95%		
Complementary characteristics			Class B	Class B		
Protection class			III	III		
Operation type			Continuous operation	Continuous operation		
Device action type			Type 1	Type 1		
Electrical stress period			Long			
Degree of protection			IP20, clean environment	IP20, clean environment		
Installation			Surface-mounted or flush-mou	Surface-mounted or flush-mounted		
Minimum clearances			Not required	Not required		
Response on KNX bus failure			Data saving according to paran	Data saving according to parameterization		
Response on KNX bus restart			Data recovery according to par	Data recovery according to parameterization		
Operation indicator			The programming LED indicates	The programming LED indicates programming mode (red) or motion		
				sensors initialization (blue blinking).		
			The motion detection of each s	The motion detection of each sector is indicated by a white flash.		
Weight			90 g			
Housing material			PC/ABS FR V0 halogen free ho	PC/ABS FR V0 halogen free housing and HDPE lens.		

<sup>&</sup>lt;sup>1</sup> Maximum consumption in the worst-case scenario (KNX Fan-In model).

TEMPERATURE SENSOR SPECIFICATIONS				
CONCEPT	DESCRIPTION			
Measuring range	-30 +90 °C			
NTC accuracy (@ 25 °C)	±0.5 °C			
Temperature resolution	0.1 °C			

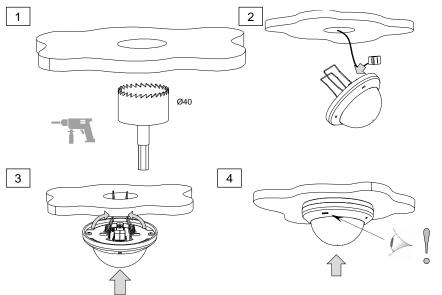
#### SURFACE-MOUNTED INSTALLATION

- 1. Please remove the retaining springs.
- 2. Drill four holes (Ø6 mm) on the ceiling forming a 43 mm-side square shape and insert plugs.
- 3. Anchor the base by using screws. Recover the wiring and connect it.
- 4. Fix the device to the base. Pay attention to the orientation marks.

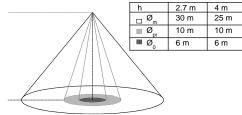


#### **FLUSH-MOUNTED INSTALLATION**

- 1. Make a Ø40 mm hole on the ceiling.
- 2. Recover the wiring and connect it to the device.
- 3. Insert the device into the ceiling hole and allow the retaining springs to close.
- 4. Fix it and pay attention to the orientation marks.

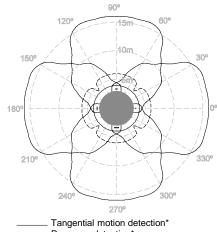


h=2.7m / 4m



- Ø<sub>m</sub>: Tangential motion detection area. For perpendicular movement to the sensor, the motion detection area is decreased (see installation tips).
- Ø<sub>pr</sub>: Presence detection area (1 meter over the floor)
- $\emptyset_0$ : Maximum detection area (detection not affected by sensitivity parametrization)

Figure 2. Presence and movement detection ranges.



Presence detection\* h=2.7 m y sensitivity = 100%

Figure 3. Detection sectors

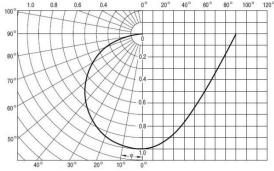


Figure 4. Illuminance sensor sensitivity.

Note: All the ranges have been verified for heights of 2.7 and 4 meters. In case of differents heights, those ranges will be altered.



## **SAFETY INSTRUCTIONS**

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- Keep the device away from water (condensation over the device included) and do not cover it with clothes, paper or any other material while in use. The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at
- https://www.zennio.com/en/legal/weee-regulation.
  - This device contains software subject to specific licences. For details, please refer to https://zennio.com/licenses.