

Product overview

The ceiling multi sensor model MDS is designed for occupancy detection in room or office spaces. In addition, the sensor detects the ambient brightness in rooms. The measured quantity can be used for a fixed light control by means of downstream dimming resistances. Optionally, the device is also available with an additional sensor for temperature detection.

By means of the flat construction, the device is specially suitable for an inconspicuous installation in ceiling.

Depending on the model, the multi sensor offers different output interfaces for coupling to a building system.


Functions of the MDS

- Occupancy detection 360°
- Integrated light sensor
- Integrated temperature sensor
- Different output interfaces, signal relay, 0...10V, LON FTT10 depending on the corresponding type
- Flush mounting installation in ceiling

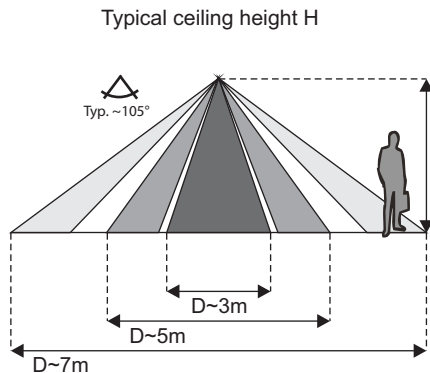
Types available

Type code	Type	Description
EXT-TN-1066869	MDS Standard 1	- PIR occupancy sensor 360°, relay output - Light sensor, 0...10V
EXT-TN-1072396	MDS Standard 3	- PIR occupancy sensor 360°, relay output - Light sensor, 0...10V - Temperature sensor, 0...10V
EXT-TN-1071504	MDS LON 1	- PIR occupancy sensor 360°, LON - Light sensor, LON FTT10

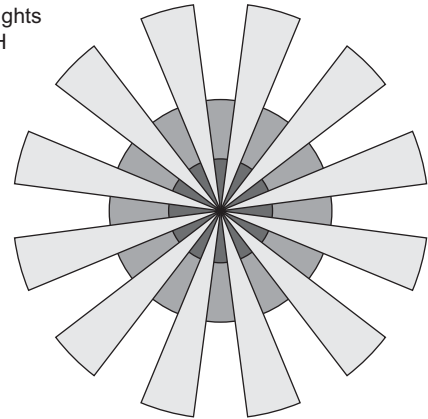
Technical data

Standards	CE conformity	- 2004/108/EG Electromagnetic compatibility - 2001/95/EG Product safety
	EN conformity	- EN60730-1:2002 EMC - EN60730-1:2002 Product safety
General data	Power supply	DC 5-24V / AC 24V(±10%)
	Clamps	Pluggable terminal screw, max. 1.5mm ²
	Movement sensor	4 Element PIR "passive infrared", with status LED for movement detection
	Light sensor	0...1kLux, photodiode with green filter
	Accuracy	Typical ±50Lux
	Temperature detection	0...50°C
	Accuracy	Typical ±0.5K
	Basic encloser	Material ABS, colour orange
	Faceplate	Material ABS, colour pure white
	Housing protection	IP20 according to EN60529
	Ambient temperature	0...50°C
	Transport	-10...50°C / max. 85% RH, non-condensing
	Weight	80g
Type MDS Standard 1	Power consumption	Typical 0.6W / 1.5VA
	Analog output (light)	0...10V, load max. 10mA
Type MDS Standard 3	Power consumption	Typical 0.6W / 1.5VA
	Analog output (light)	0...10V, load max. 10mA
	Analog output (temperature)	0...10V, load max. 10mA
	Relay output (occupancy)	No contact, max. 24V / 1A Movement detection with variable delay time (1sec...30min)
Type MDS LON 1	Power consumption	Typical 1.5W / 4.2VA
	LON interface	FTT10, free topology

Detection range



Other ceiling heights
Max. D = 2.7 x H



Security advice ⚠

The installation and assembly of electrical equipment may only be performed by a skilled electrician. The modules must not be used with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people or animals.

Mounting advice

Mounting height

The mounting height has a direct influence on the coverage range of the occupancy sensor. The optimum mounting height is 2.70m. All deviating measures will result in a change of the coverage range.

Fixed installation

The occupancy sensor has to be mounted on a solid ground, as every movement of the sensor leads to a faulty release.

Distance to switched lamps

In order to avoid an unintended switch on of the lamp released by the occupancy sensor, the lamps should not be mounted in the detection range of the sensor. Moreover, the sensor should not be installed above a lamp. The heat radiation of the lamp can affect the function of the occupancy sensor and might probably cause a faulty release.

Installation to the side of walk direction

For an optimum occupancy detection, the sensor has to be mounted to the side of the detection range, so that the zones are cut as rectangular as possible. Installation places, where the detected objects move directly to the occupancy sensor, result in a considerably reduced coverage range.

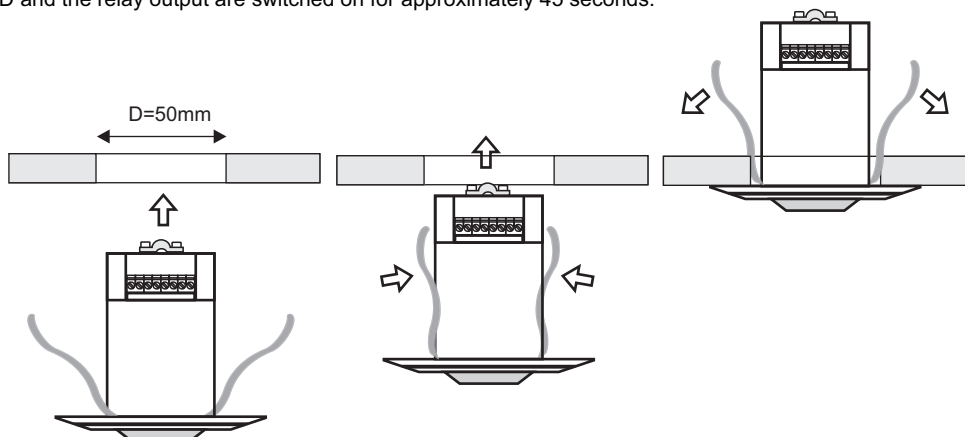
Distance to sources of interferences

In order to avoid any faulty releases, sources of interferences such as heat radiators, lamps, air exits of air-conditioning systems etc. should be installed outside the detection range. In addition, direct sun radiation should be avoided.

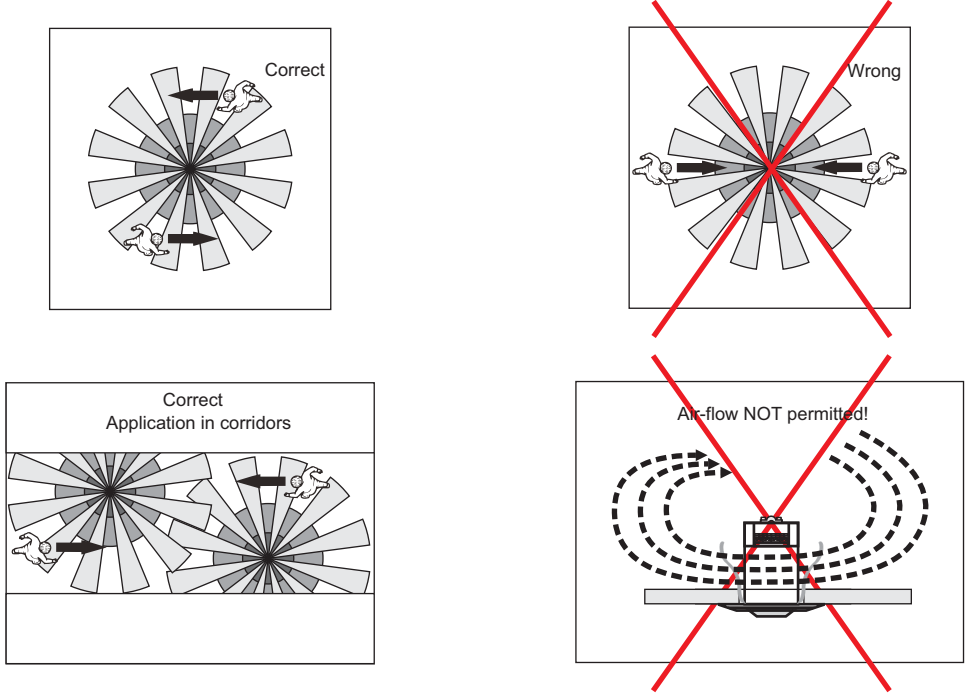
Indication for movement detection

Movement detection is indicated by lighting of status LED for 2 seconds.

Notice: The behaviour of the status LED is independent of the current used delay time of the relay output. During reset of the device (power up) the status LED and the relay output are switched on for approximately 45 seconds.

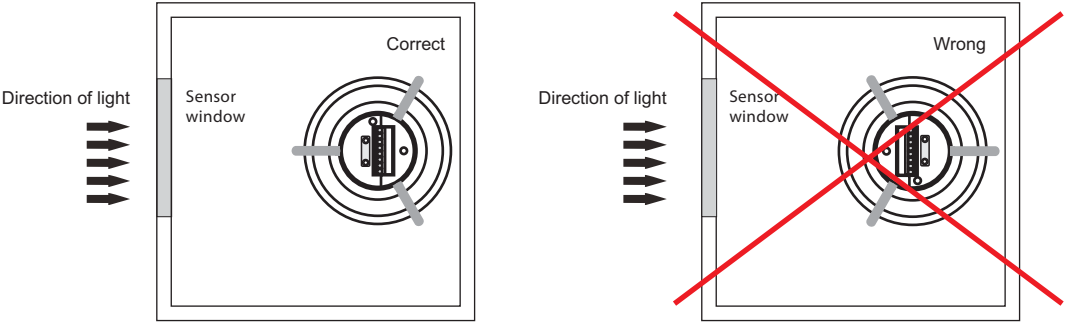


Mounting advice (cont.)

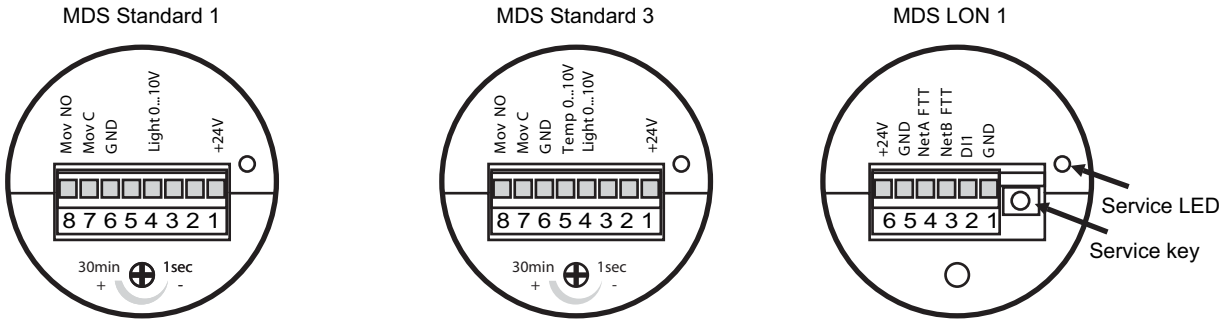


Direction of internal light sensor

To have the highest accuracy for light measurement, please mount the sensor in the following way (see picture below).



Terminal connection plan

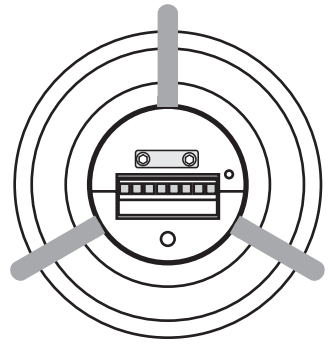
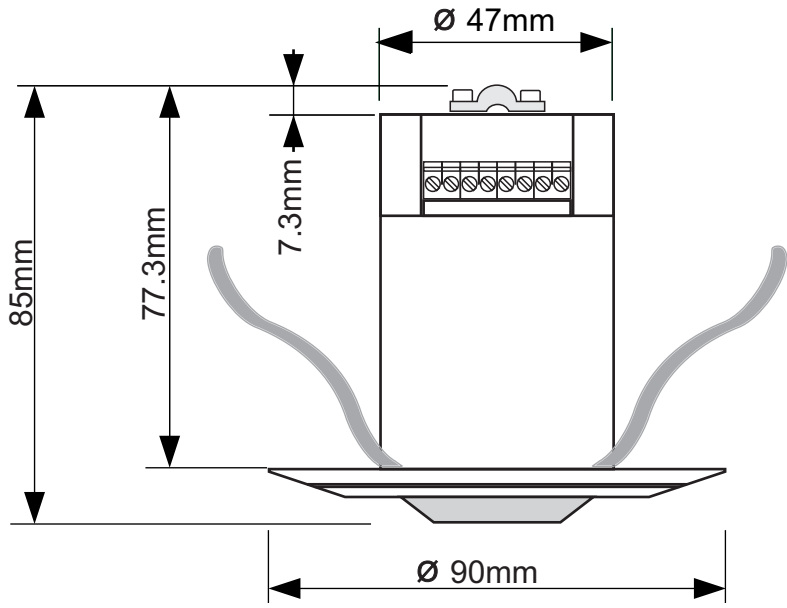


Variable delay time for movement detection range from 1s....30min

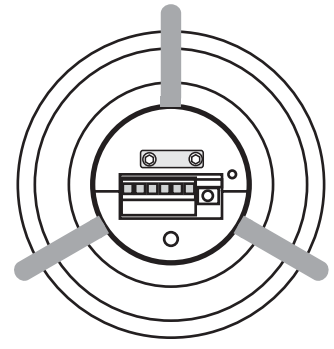
Variable delay time for movement detection range from 1s....30min

Service LED
Service key

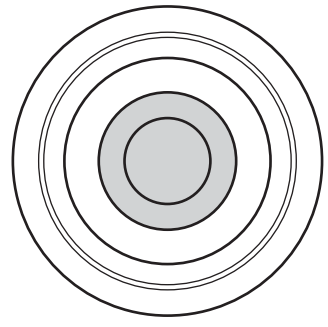
Dimensions (mm)



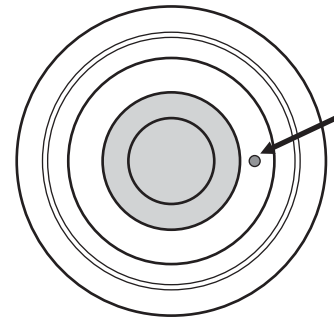
MDS Standard



MDS LON1



MDS without temperature sensor



MDS with temperature sensor

Temperature sensor