PRESENCE DETECTOR

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PRESENCE DETECTOR

Overview

- Power Supply 24V AC or DC
- Intended for wall or ceiling mounted
- Unobtrusive design
- Potential-free, changeover relay
- Both relay on-delay and/or relay off-delay, can be individually set

Overview

149-DCV-PIR is a presence detector designed for Demand Control Ventilation systems.

Function

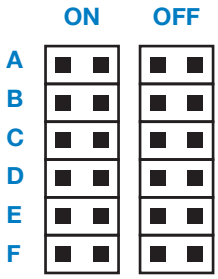
The PIR is a presence detector designed for automatic ventilation control of DCV systems. It saves money and gives higher comfort in premises which require forced ventilation for shorter periods of time, such as conference rooms, assembly-halls etc. The unit provides a changeover relay signal output for start/stop of fan or similar equipment. It can be wall or corner mounted with 110°, 15m detection range.

Range Adjustments

In order to suit different rooms or areas, the detection range of PIR can be adjusted by changing the direction of the sensor. To change the sensor direction, release the screw on the mounting bracket and then carefully move the sensor to the direction desired.

On / Off Delay

The ON and OFF delays are designed to provide smarter energy management of DCV systems. ON delay is the time given to the sensor to certify the occupancy, before it activates the output relay. OFF delay is the time that the relay is activated after the last detection. Both ON and OFF delays can be easily set by placing the jumper head on the corresponding pins as following.



	A	B	C	D	E	F
ON	0s	10s	30s	1min	5mins	10mins
OFF	10s	1min	5mins	10mins	20mins	30mins

Technical Data

Product Code	Infrared Sensor	Power Supply	Detection Range	Output Relay	Consumption	Mounting Height m
149-DCV-PIR	Dual Element	24 ± 2 V AC/DC	15 x 15m at 15°C	24 V DC, 0.2 A max.	5mA @24 V AC	1.8 - 3.6
Product Code	**Mounting Bracket**	**Detectable Speed m/s**	**RFI Immunity**	**Ambient Temperature °C**	**Ambient Humidity RH max.**	**Dimensions mm**
149-DCV-PIR	MB-99	0.1 - 3.0	Av. 20V/m (10 - 1000MHz)	-20- 50	95%	112 x 66 x 45

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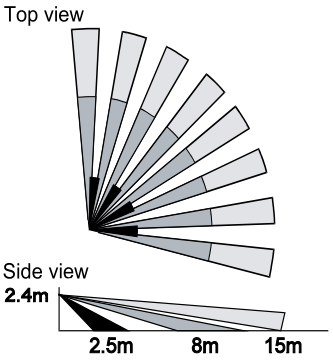
PRESENCE DETECTOR

Technical Data

Operation

Standby

After the warm up time expires, the sensor enters into standby mode. The detector will check whether both delays are properly set. If not, the green LED will blink to indicate.



Relay ON Delay

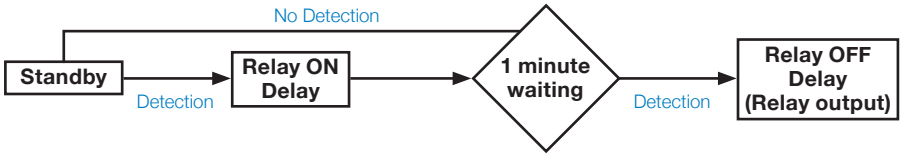
Relay ON delay is the time given to sensor to verify true occupancy before activating the relay output. Any further detection during ON delay will NOT reset the timer.

1 Minute Waiting

When Relay ON delay expires, the sensor enters into a 1 minute waiting time. If no detection occurs within 1 minute, the sensor will return to standby mode. If any detection occurs, then relay output will be activated and Relay OFF delay will be started.

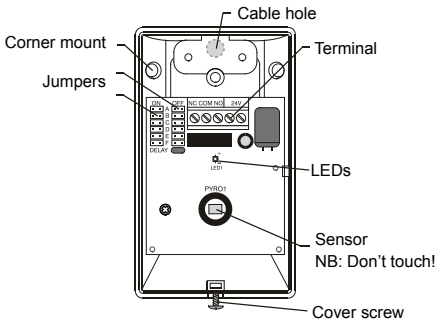
Relay OFF Delay

Relay OFF delay is the time of relay activating. Every detection during this period will reset the timer.



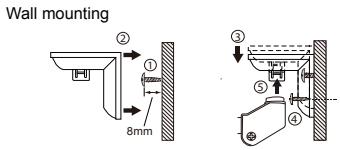
Installation

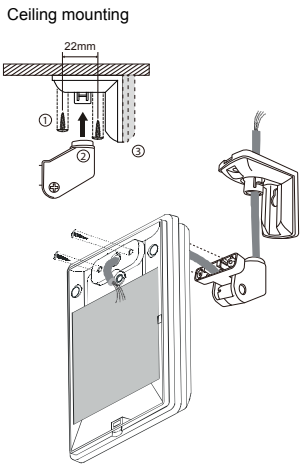
Do not install where the detector is exposed to direct sunlight or directly above strong sources of heat. Make sure the detection area does not have any obstruction (plants, large pieces of furniture, curtains etc.) which may block the detection.



Installation

1. Mount the base of mounting bracket on the selected position. Lead the cable through the access tunnel of mounting bracket or through the knockout openings (see description-picture page 1).
2. Open the front cover by loosening the locking screw at the bottom. Lead the cable into the unit and assemble the mounting bracket with the unit.
3. Connect the cable to the corresponding terminals according to the instructions below.
4. Replace the front cover and then proceed with the walk test.

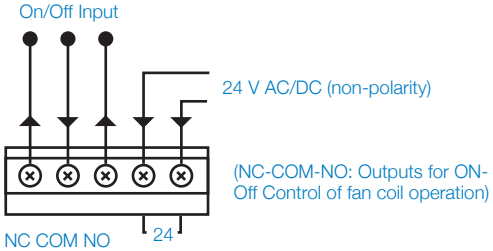




Walk Test

Apply power supply and allow 25 seconds for sensor to warm up. The green LED will blink during warm up period. Walk across the detection zones (invisible) at normal speed. The red LED will blink whenever the sensor detects the motion.

Wiring Diagram



This product conforms with the requirements of European EMC standards CENELEC EN 61000-6-1 and EN 61000-6-3 and carries the CE mark.
N.B. System neutral and signal neutral should be separately wired, because of current peaks in the supply wires. Screw terminal: Max. 1.5mm².

Building Services

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