

# Presence detector

# IR24-P



IR24-P is a presence detector designed for automatic ventilation control of HVAC 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°, 15 m detection range.

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

### Range adjustments

In order to suit different rooms or areas, the detection range of IR24-P 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.

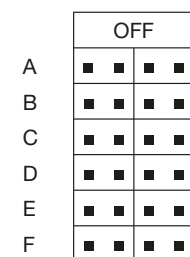
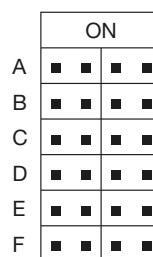
### Technical data

Infrared	Sensor Dual element	Detectable speed 0.1 ...3.0 m/sec.
Power supply	24 ± 2 V AC/DC	RFI immunity Av. 20 V/m (10... 1,000 MHz)
Detection range	15 x 15 m at 25°C	Ambient temperature -20°C...50°C
Output relay	24 V DC, 0.2 A max.	Ambient humidity 95% RH max.
Consumption	5 mA @24 V AC	Dimension 112 x 66 x 45 mm
Mounting height	1.8...3.6 m	
Mounting bracket	MB-99	

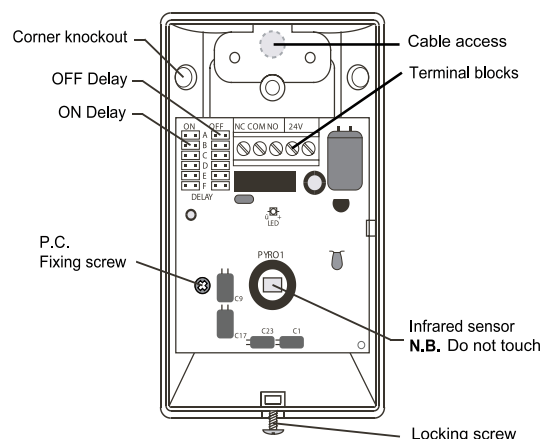
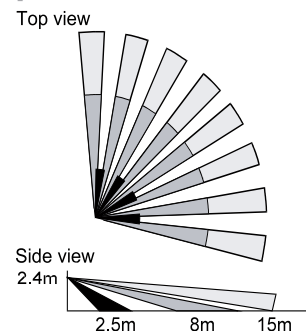
### On / Off Delay

The ON and OFF delays are designed to provide smarter energy management of HVAC systems. On delay is the time given to the sensor to certify the occupancy, before it activates the output realy. OFF delay is the time that the realy 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 stated below.

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



### Detection pattern



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## Operation

### A. 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.

### B. Relay ON Delay

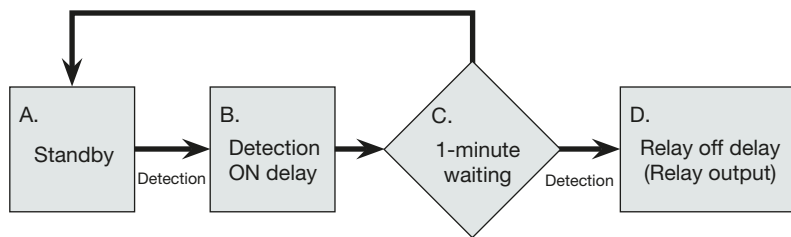
Relay On delay is the time given to sensor to verify true occupancy before activating the relay output. Any further detection during ON delay will NOT reset the timer.

### C. 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.

### D. Relay OFF Delay

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



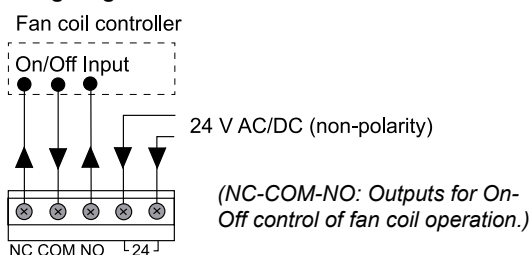
## Installation and Wiring

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

### Installation (see also picture beside)

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.

### Wiring diagram



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 periods. Walk across the detection zones (invisible) at normal speed. The red LED will blink whenever the sensor detects the motion.

