IR24-PC

Motion detector

Motion detector for automatic room control.

- **24 V AC/DC supply voltage**
- **Potential-free, change-over relay**
- **Individually settable ON- and OFF-delays**

- **360° detection**
- **For ceiling mounting**
- **Unobtrusive design**

IR24-PC is a 360° motion detector for automatic ventilation control of HVAC systems. It uses infrared light. The detector has a potential-free change-over relay for activation/deactivation of for instance a fan-coil controller. It saves money and gives higher comfort in premises requiring forced ventilation for shorter periods of time, such as conference rooms, assembly-halls etc.

The unit can be ceiling mounted, providing a 360° detection pattern with a maximum range of 10.5m

ON/OFF-delays

IR24-PC has individually settable ON- and OFF-delays. The delays are designed to provide better energy management of HVAC systems.

The ON-delay is the time given to the sensor to certify the occupancy before it activates the fan-coil controller. The OFF-delay is the operating time for the fan-coil after the last detection.

The ON- and OFF-delays are set by placing the jumper head on the corresponding pins according to the table and figure 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
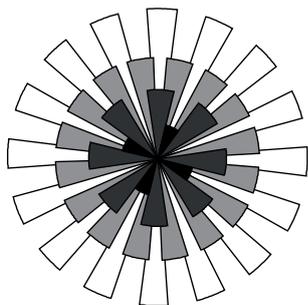
Top view 360°
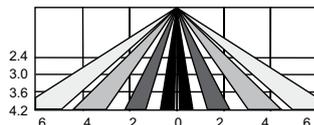
Side view

Mounting height (m)	2.4	3.0	3.6	4.2
Diameter coverage	6.0	7.5	9.0	10.5

≋REGIN
THE CHALLENGER
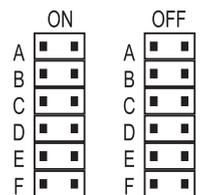
Operation

A: Standby

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

B: Relay ON-delay

Relay ON-delay is the time given the 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 the relay should be active before switching off. Every new detection will reset the timer.
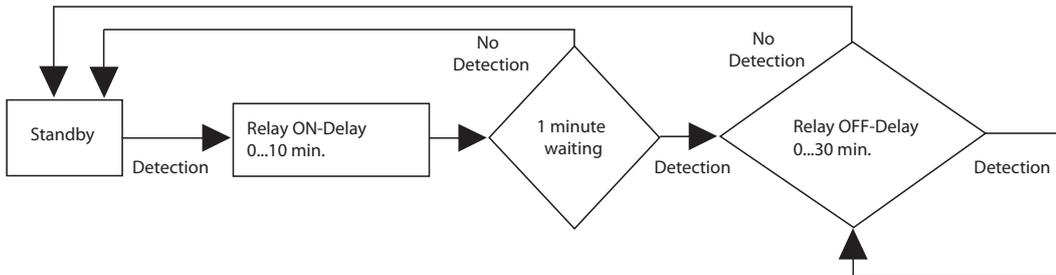
Installation and wiring

N.B.: Do not install the detector where it 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.

1. Loosen the screw and remove the cover. Carefully lift out the electronics cassette by bending the plastic clips outwards.

2. Lead the cable into the bottom part. Mount the bottom part on the ceiling.

3. Replace the electronics cassette and connect the cable to the corresponding terminals according to the instructions below.
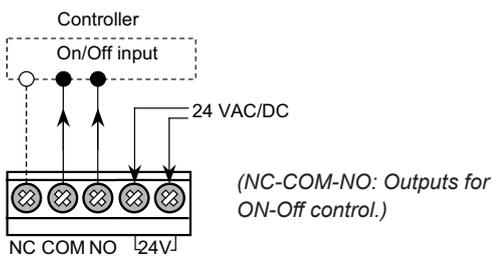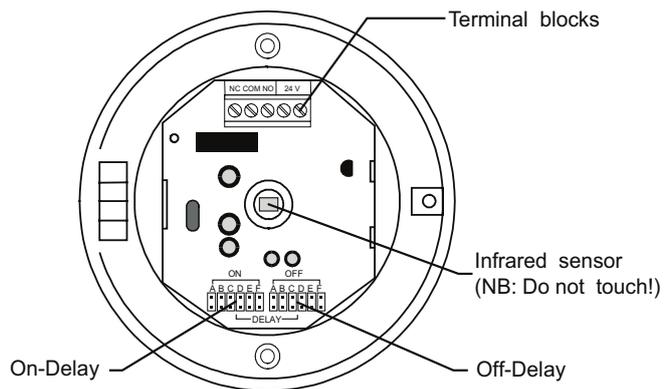

4. Finally, replace the front cover and proceed with the walking test.

NB: Do not touch the infrared sensor in the middle of the electronics cassette.

Walking test

To test the function of the detector, apply power and wait for the detector to warm up (~25 s). The LED will blink (long and short) during the warm-up period. Ensure that the jumper head connectors of the On and OFF-delays are placed in the "A" position (the shortest time). Walk across the detection zone at normal speed. The LED will be lit when the sensor detects the motion.

NB: The LED will blink if a jumper head connector is not properly placed.

Technical data

Infrared sensor	Dual element
Supply voltage	24 ± 2 V AC/DC
Detection range	Mounting height x 2.5 = diameter converage, 25° angle
Power consumption	15 mA @24 V AC
Output	200 mA, 24 V AC/DC, potential-free change-over relay
Ambient humidity	Max. 95% RH
Temperature range	-20...+50°C
Protection class	IP20
Mounting	Ceiling mounting
Mounting height	2.4...4.2 m
ON-delay	0, 10, 30, 60, 300 or 600 s (selectable)
OFF-delay	10, 60, 300, 600, 1200 or 1800 s (selectable)

CE   This product carries the CE-mark. More information is available at www.regincontrols.com.

Dimensions

110

44

mm

Product documentation

Document	Type
Instruction IR24-PC	Instruction for IR24-PC

The product documentation is available at www.regin.se.

≋REGIN
THE CHALLENGER