

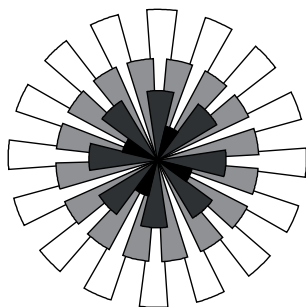


Detectors which give a signal when someone enters the room. The detector has a pulse-detecting function that minimizes the risk of false alarms. Settable on/off delays.

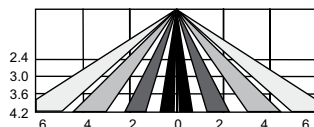
- 24 V AC/DC supply voltage
- Potential-free, change-over relay
- Individually settable ON- and OFF-delays
- 360° detection
- For ceiling mounting
- Unobtrusive design

SIR24-PC is a 360° presence 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

**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

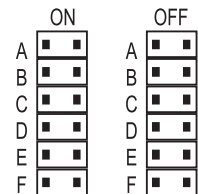
**ON/OFF-delays**

SIR24-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.



**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**

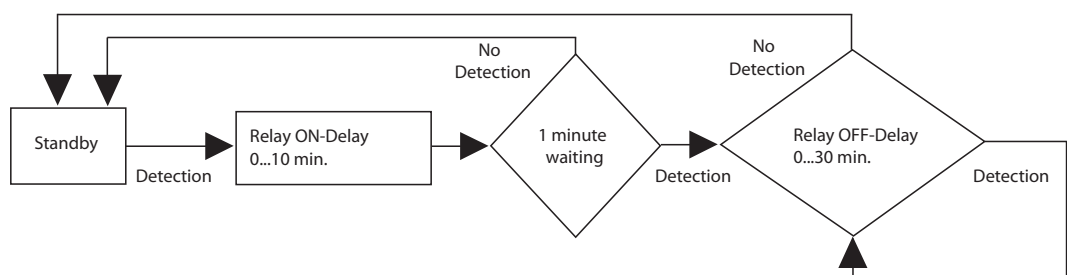
Relay ON-delay is the time given the sensor to verify true occupancy before activating the relay output. Any further detection during ON-delay will NOT reset the timer.

**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**

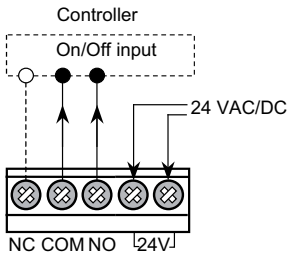
Relay OFF-delay is the time the relay should be active before switching off. Every new detection will reset the timer.



## 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.



(NC-COM-NO: Outputs for ON-Off control of fan-coil operation.)

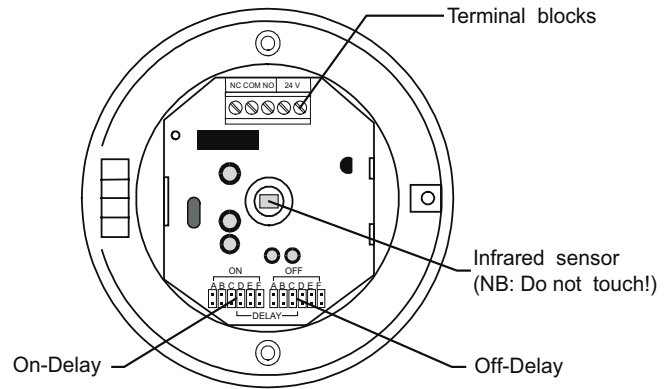
4. Finally, replace the front cover and proceed with the walking test.

**N.B.:** 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.

**N.B.:** The LED will blink if a jumper head connector is not properly placed.



## TECHNICAL DATA

<b>Power supply:</b>	24 ± 2 Vac/dc, 0.1 VA
<b>Alarm output:</b>	200 mA, 24 Vac/dc 0,2A Max., potential-free change-over contact
<b>Power cons.:</b>	15 mA
<b>Temperature range:</b>	-20°C...+50°C
<b>Room humidity:</b>	Max. 95 % RH
<b>Infrared sensor:</b>	Dual element
<b>Detection range:</b>	Mounting height x 2.5 = diameter coverage, 25° angle
<b>Mounting height:</b>	2.4...4.2 m
<b>Detectable speed:</b>	0.1...3.0 m/s
<b>ON-delay:</b>	0, 10, 30, 60, 300 or 600 s (selectable)
<b>OFF-delay:</b>	10, 60, 300, 600, 1200 or 1800 s (selectable)
<b>CE</b>	<b>EMC emissions &amp; immunity standards:</b> This product conforms to the requirements of the EMC Directive 2004/108/EC through product standards EN 61000-6-1 and EN 61000-6-3. <b>RoHS:</b> This product conforms with the Directive 2011/65/EU of the European Parliament and of the Council.
<b>Mounting:</b>	Wall/ceiling
<b>Protection:</b>	IP20
<b>Size:</b>	Ø 110 x h 44 mm

TYPE	DESCRIPTION	MOUNTING	DETECTION AREA
SIR24-PC	Presence detector	Ceiling	Height x 2.5 = diameter of detection to ground

## DIMENSIONS (mm)

