SpotScan
Active-Infrared-Presence Detector

Translation of the original instructions

1 Safety instructions
- Read these operating instructions thoroughly before putting the device into operation and keep them for future reference.
- This product is designed to be mounted above an overhead pedestrian door.
- Not a safety component in accordance with the EU Machinery Directive; must not be used for personal protection or EMERGENCY STOP function.
- Only trained and qualified personnel may install and initialize the device.
- Only authorized factory personnel may perform hardware/software changes or repairs to the product.
- Failure to follow these safety precautions may cause damage to sensor or objects, serious personal injury, or death.
- The sensor should only be operated from a safety extra low voltage (SELV) system with safe electrical separation according to EN 61558. The wiring must be protected against mechanical damage.
- Protect the sensor against rain and snow.
- Avoid touching any electronic and optical components.

2 Product overview

3 Installation
Stationary operating mode: Max. mounting height of 3.2 m (10.5 ft) should not be exceeded

4 Electrical connections

5 Settings

5.1 Frequency switching (DIP switch 1)
Sensors with small installation clearance (<50 mm / 2") can interact. To avoid this, a choice can be made between two different transmission frequencies (1 and 2). These should be set alternately.

5.2 Operating mode (DIP switch 2)
Choice between stationary and mobile operating mode:
Mobile = background is ignored (background suppression).
Stationary = background may not change (background analysis). Only fixed mounting possible.
The testing function only works with the stationary operating mode.

5.3 Output switching mode (DIP-switch 3)
Active or passive switching mode. Definitions:
Active - output is activated, when an object is detected in the detection range
Passive - output is activated when no object is detected in the detection range
Important: Active/passive is the opposite way around with stationary and mobile operating mode.
See also Sect. 5.2 for the operating mode.

6 Adjusting the scanning range
The scanning range is adjusted using a screwdriver at the adjustment screw.
Attention: Turn the screw smoothly to the end stop.

Further installation accessories available on request:
- Protective cover
- Flush-type inlet box
- Surface-type box
- Flush-type set
- Flush-type cover

Product overview

Installation

Safety instructions

Electrical connections

Settings

Adjusting the scanning range
7 Setting the switching point
1. Turn the adjusting screw smoothly clockwise to the end stop (= maximum scanning range)
2. Turn the adjusting screw anti-clockwise until the state of the LED display changes.
   As soon as the LED state changes, the switching point is set directly over the floor.
   – When making adjustments do not reach into the detection beam with the hand, any part of the body or with the screwdriver, etc. (hold the screwdriver slightly diagonally upright).
3. To avoid false detection by subsequent changes of the background, set the switching point back to approx. 250 mm (10") above the floor for indoor installations and approx. 350mm (14") for outdoor installations
   – To do so, turn the adjusting screw a little further in the anti-clockwise direction.
   – The switching point can be easily located from below by hand or using a sheet of paper. The LED display changes its state, as soon as the hand or the piece of paper reaches the switching point.
4. Close the cover and check the settings once more. If necessary, make further adjustments.

8 Switching state
The following diagrams show the switching state of the output and of the LED display, when an object is captured in the detecting range. There will be differences in the active and passive switching mode of the output. The definitions in Sect. 5.3 should be observed!

8.1 Stationary operating mode (DIP switch 2 = OFF)

8.2 Mobile operating mode (DIP switch 2 = ON)

9 Testing function
The correct functioning of the sensor is checked using the testing function.
Whilst the testing is in operation (the test input is subjected to electrical tension), the transmitter is switched off. This simulates an object in the detection area (detection) and causes the switching state of the output to change. Important: Testing is only possible in the stationary operating mode. See sect. 4 for the allowed voltage levels and further instructions on the use of the testing function. The table shows the switching state of the output and the LED display when the test input is activated.

10 Trouble shooting
– Check operating voltage and electrical connections → Sect. 4
– Interaction influence of sensors → Sect. 5.1
– Maximum mounting height / scanning range of 3.2 m (10.5 ft) / 4.5 m (14.8 ft) exceeded?
– Is the floor recognized as an object? Is the switching point correctly adjusted?
→ Sect. 7 and 8

11 Technical data

<table>
<thead>
<tr>
<th>SpotScan</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>Scanning range</td>
<td>max. 3200 mm (10.5 ft)</td>
</tr>
<tr>
<td>Scanning range adjustment</td>
<td>max. 4500 mm (14.8 ft)</td>
</tr>
<tr>
<td>Scanning range with mechanical adjusting screw</td>
<td>1000 – 4500 mm (3.3 – 14.8 ft)</td>
</tr>
<tr>
<td>Detecting range</td>
<td>100 – approx. 3200 mm (4“ – 126&quot;)</td>
</tr>
<tr>
<td>Temperature dependence of detecting range</td>
<td>at +60°C (140°F): +10% / at –20°C (–4°F): -10%</td>
</tr>
<tr>
<td>Black/white difference</td>
<td>&lt; 400 mm (15.75&quot;)</td>
</tr>
<tr>
<td>Detection field</td>
<td>approx. 50 x 50 mm (2&quot; x 2&quot;)</td>
</tr>
<tr>
<td>Type of light</td>
<td>pulsed, intermittent (RED)</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>18-48 V DC or 11-36 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>Residual ripple</td>
<td>max. 10%</td>
</tr>
<tr>
<td>Current / power consumption</td>
<td>max. 100 mA / approx. 3 W / 3 VA</td>
</tr>
<tr>
<td>Operating mode</td>
<td>stationary or mobile</td>
</tr>
<tr>
<td>Output switching mode</td>
<td>active or passive</td>
</tr>
</tbody>
</table>

12 EU Declaration of Conformity

13 WEEE

Devices with this symbol must be treated separately during disposal. This must be done in accordance with the laws of the respective countries for environmentally sound disposal, processing and recycling of electrical and electronic equipment.

14 Contact
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