



Model Number

AIR30/32-UP-2493

Active infrared scanner

Flush-mounted version

Features

- Single-beam light scanner
- Can be used to monitor both main and ancillary closing edges
- Closing edge safety on revolving doors and carousel doors
- Accurate beam alignment thanks to finely bundled light beam
- Flush-mounted version with front cover, black
- DC voltage version

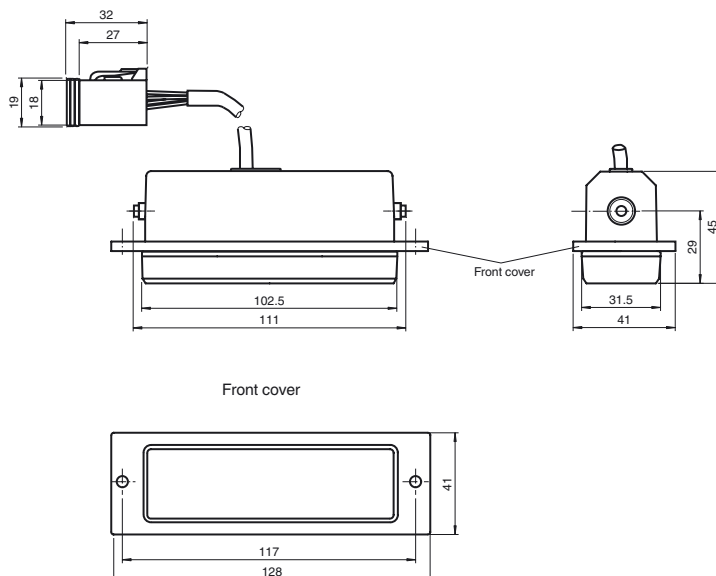
Product information

The sensor is used as an opening impulse sensor for train doors. The fact that it is fitted to the side means that the detection beam crosses the entrance area. The detection range is optimized for doors that are 935 mm to 955 mm wide. The detection range is preset and cannot be modified. This creates a background area above 885 mm in which no detection takes place.

Caution!

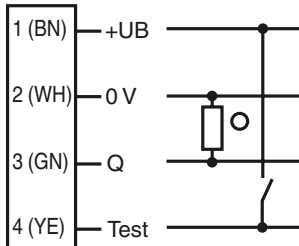
The sensor must point towards a background or a wall, otherwise it will not work.

Dimensions

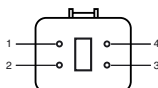


Electrical connection

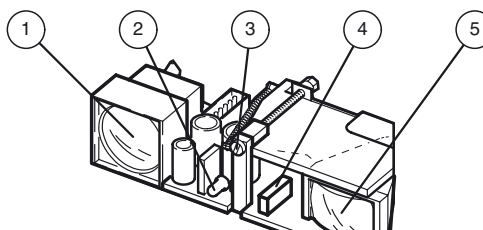
Option:



Pinout



Indicators/operating means



| | |
|---|--------------------------|
| 1 | Transmitter |
| 2 | Indication-LED |
| 3 | Detection range adjuster |
| 4 | Light / Dark switch |
| 5 | Receiver |

Technical data

General specifications

| | |
|----------------------------|--------------------------------------|
| Detection range min. | 0 ... 885 mm preset |
| Reference target | material with reflection factor > 6% |
| Light source | IREL |
| Light type | modulated infrared light |
| Transmitter frequency | 1800 Hz |
| Operating mode | Background evaluation |
| Diameter of the light spot | 22 x 22 mm at sensor range 885 mm |
| Angle of divergence | approx. 1.4 ° |
| Accessories provided | Swivel bracket, Mounting bracket |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1050 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 90 % |

Electrical specifications

| | | |
|------------------------|----------------|---------|
| Operating voltage | U _B | 24 V DC |
| No-load supply current | I ₀ | 100 mA |

Input

| | |
|------------|---|
| Test input | emitter deactivation at +U _B |
|------------|---|

Output

| | |
|-------------------|--|
| Switching type | light on (output is active, when background exists and no person in the detection field) |
| Signal output | 1 PNP output, short-circuit protected, reverse polarity protected, open collector |
| Switching voltage | max: 31.2 V DC |
| Switching current | ≤ 0.2 A |
| Response time | 50 ms |

Standard conformity

| | |
|-------------|--|
| Standards | EN 60947-5-2 |
| Standards 2 | EN 61000-6-2 without EN 61000-4-5, EN 61000-4-11 |
| Standards 3 | EN 61000-6-3 |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | -30 ... 70 °C (-22 ... 158 °F) |

Mechanical specifications

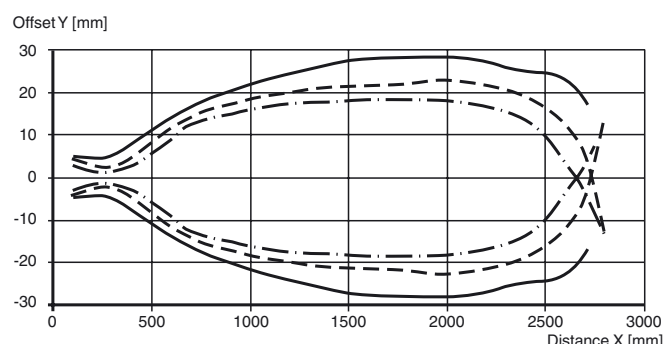
| | |
|----------------------|--|
| Degree of protection | IP52 |
| Connection | Connecting cable 500 mm with socket connector (Deutsch), 4-pin |
| Material | |
| Housing | plastic |
| Optical face | Luran® |
| Mass | 50 g |

Approvals and certificates

| | |
|--------------|---|
| CCC approval | CCC approval / marking not required for products rated ≤ 36 V |
|--------------|---|

Curves/Diagrams

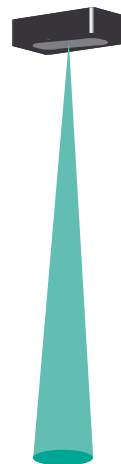
Characteristic response curve



Typical applications

- Monitoring closing edges and crushing points on revolving doors and carousel doors
- Door monitoring system in local public transportation

Detection area



Accessories

UP-Einbaurahmen

Mounting frame for sensors in the AIR30 and PROSCAN series

Flush Mounting AIR30

Installation cover for AIR30 series sensors

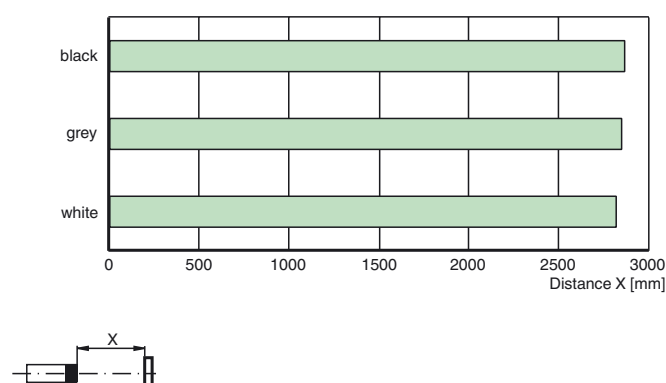
Wetterhaube AIR30

Weather hood for series AIR30

Other suitable accessories can be found at www.pepperl-fuchs.com

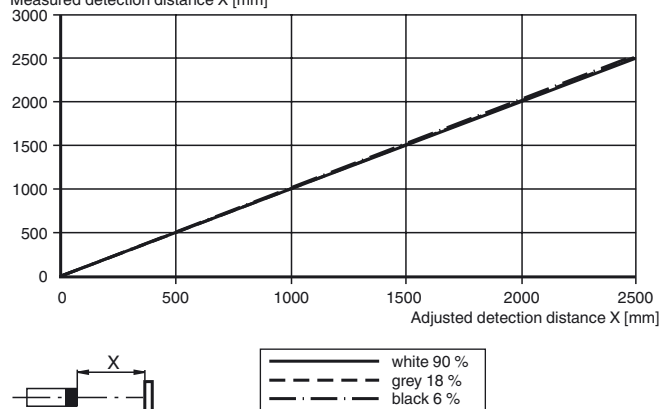
Detection ranges

Object colour



Difference in detection distance

Measured detection distance X [mm]



Operating principle

Active infrared scanners detect people and objects using short-wave infrared radiation according to the triangulation principle. A switch signal is tripped if the infrared beam emitted is reflected by an object within the specified sensing range. Where background evaluation is activated, the background (e.g. ground) is used as a reflector.

This allows reflective or shiny objects, such as vehicles and objects located close to the surface, to be detected reliably and in full.

Operating principle Background evaluation

Object in sensing field:

