



**Model Number**

**AIR30-8-H-2500/38a**

Active infrared scanner  
with 5 m fixed cable

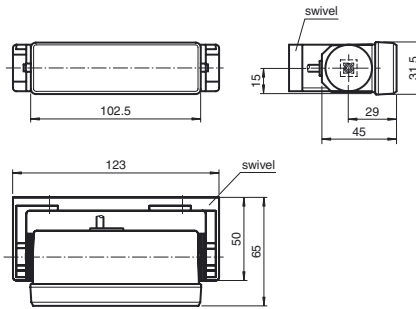
**Features**

- 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
- Background suppression operating mode: ignores objects outside the sensing range

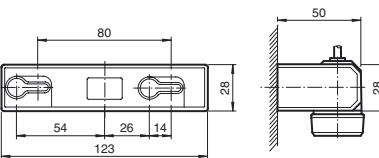
**Product information**

AIR30 is a series of active infrared scanners with excellent optical properties for monitoring closing edges in a wide range of door systems. The diverse range of housings and mounting options allow the devices to be adapted to suit a whole host of mounting conditions.

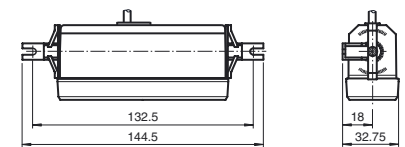
**Dimensions**



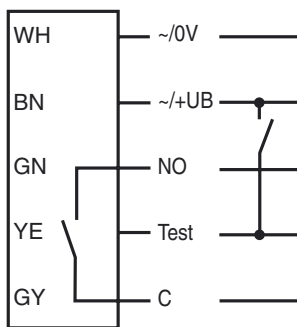
Mounting dimensions for swivel



Mounting dimensions with mounting bracket set AIR30



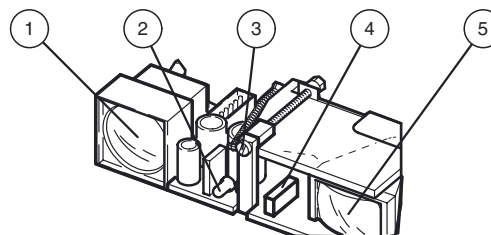
**Electrical connection**



**Note:**

Test input can not be used, if sensor is supplied with AC voltage!

**Indicators/operating means**



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

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Subject to modifications without notice

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## Technical data

### General specifications

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Detection range min.              | 550 ... 1000 mm                   |
| Detection range max.              | 550 ... 2500 mm                   |
| Light source                      | IREL                              |
| Light type                        | modulated infrared light          |
| Black/White difference (6 %/90 %) | ≤ 400 mm at a distance of 2000 mm |
| Transmitter frequency             | 1800 Hz                           |
| Operating mode                    | Background suppression            |
| Diameter of the light spot        | 50 mm at 2000 mm sensor range     |
| Angle of divergence               | approx. 1.4 °                     |
| Accessories provided              | Swivel bracket, Mounting bracket  |

### Functional safety related parameters

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 1050 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 90 %   |

### Indicators/operating means

|                  |   |
|------------------|---|
| Function display | LED red: lights up when output is active    |
| Controls         | Detection range adjuster, light/dark switch |

### Electrical specifications

|                        |                |                                 |
|------------------------|----------------|---------------------------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 48 V DC / 11 ... 38 V AC |
| No-load supply current | I <sub>0</sub> | 100 mA                          |

### Input

|            |   |
|------------|---|
| Test input | emitter deactivation at +U <sub>B</sub> |
|------------|---|

### Output

|                    |                           |                |
|--------------------|---------------------------|----------------|
| Switching type     | light/dark on, switchable |                |
| Signal output      | relay, 1 NO               |                |
| Switching voltage  | ≤ 55 V AC / 24 V DC       |                |
| Switching current  | ≤ 200 mA AC / 1 A DC      |                |
| Response time      | 70 ms                     |                |
| De-energized delay | t <sub>off</sub>          | approx. 200 ms |

### Ambient conditions

|                     |                               |
|---------------------|-------------------------------|
| Ambient temperature | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | -20 ... 75 °C (-4 ... 167 °F) |

### Mechanical specifications

|                   |                 |
|-------------------|-----------------|
| Protection degree | IP52            |
| Connection        | 5 m fixed cable |
| Material          |                 |
| Housing           | plastic         |
| Optical face      | Luran           |
| Mass              | 50 g            |

### Compliance with standards and directives

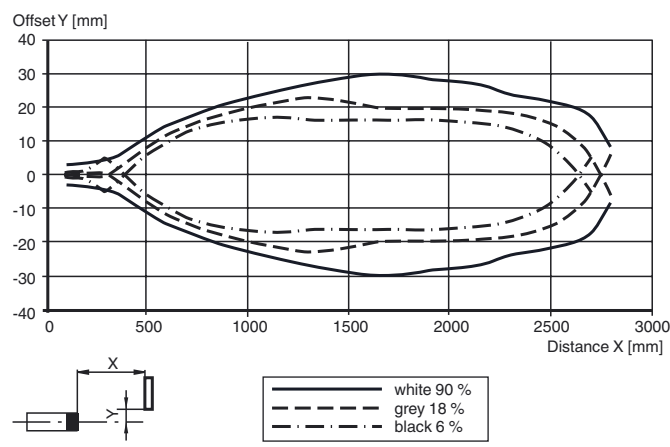
|                     |  |
|---------------------|--|
| Standard conformity |  |
| Standards           | EN 60947-5-2<br>EN 61000-6-2 without EN 61000-4-5, EN 61000-4-11<br>EN 61000-6-3 |

### Approvals and certificates

|               |   |
|---------------|---|
| CE conformity | yes   |
| CCC approval  | Certified by China Compulsory Certification (CCC) |

## Curves/Diagrams

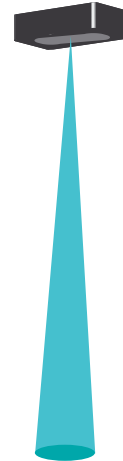
### Characteristic response curve



## 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

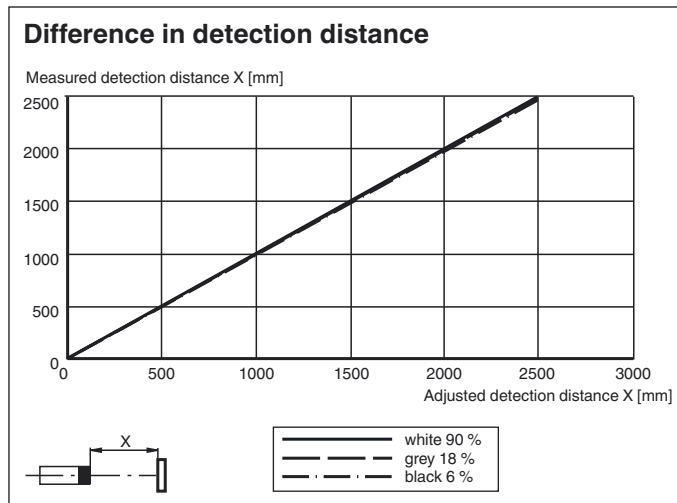
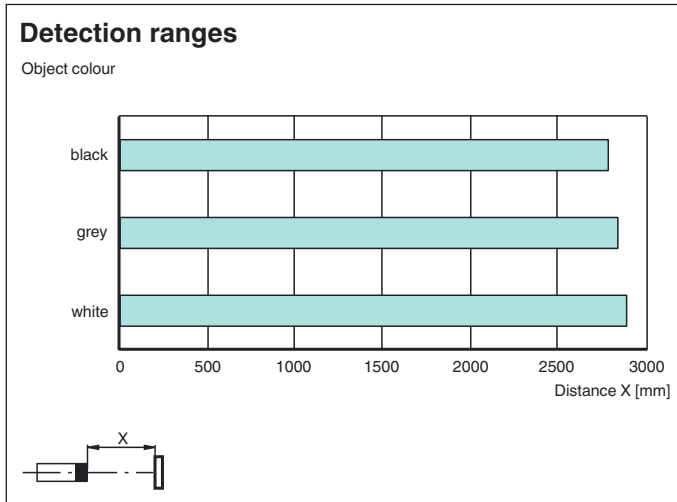
### Flush Mounting AIR30

Installation cover for AIR30 series sensors

### Wetterhaube AIR30

Weather hood for series AIR30

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)



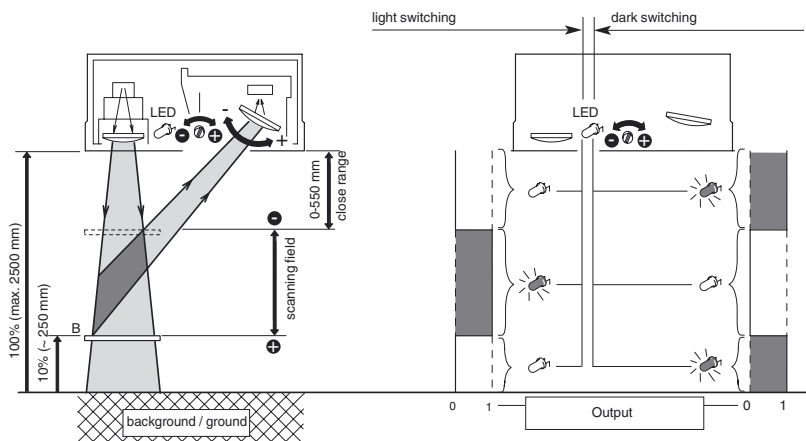
## Operating principle

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 suppression is activated, the background (e.g. ground) is detected but not evaluated.

This allows an extremely precise detection area to be set and ensures reliable detection of people, vehicles and other objects.

### Function principle background suppression

Object in scanning field:



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