

Model Number

AIR30-8-HW-2500-3767/38a/76a

Active infrared scanner
with 5 m fixed cable

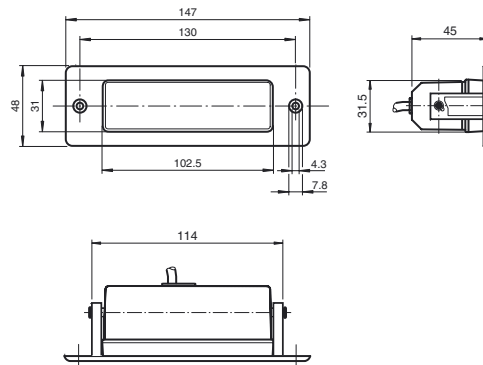
Features

- Single-beam light scanner
- Can be used to monitor both main and ancillary closing edges
- Accurate beam alignment thanks to finely bundled light beam
- Background evaluation operating mode: uses the background as a reference for detecting difficult objects
- Version with pre-assembled flush-mounted installation frame
- Version for universal voltages

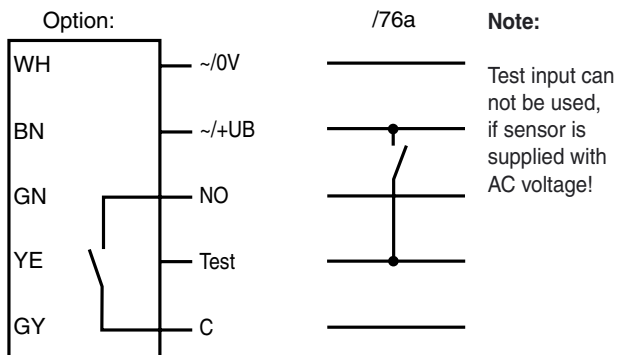
Product information

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.

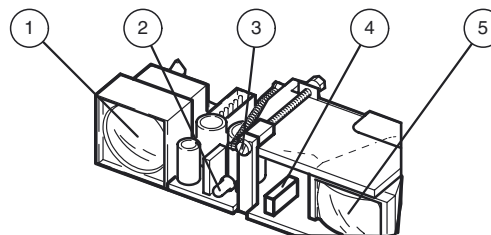
Dimensions



Electrical connection



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.	100 ... 1000 mm
Detection range max.	100 ... 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 evaluation
Diameter of the light spot	50 mm at 2000 mm sensor range
Angle of divergence	approx. 1.4 °
Accessories provided	Mounting frame for sensors in the AIR30 and PROSCAN series (pre-mounted)

Functional safety related parameters

MTTF _d	1050 a
Mission Time (T _M)	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 _B	10 ... 48 V DC / 11 ... 38 V AC
No-load supply current	I ₀	100 mA

Input

Test input	emitter deactivation at +U _B
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Output

Switching type	light/dark on, switchable / Ex works settings: light on
Signal output	relay, 1 NO
Switching voltage	≤ 55 V AC / 24 V DC
Switching current	≤ 200 mA AC / 1 A DC
Response time	50 ms
De-energized delay	t _{off} 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

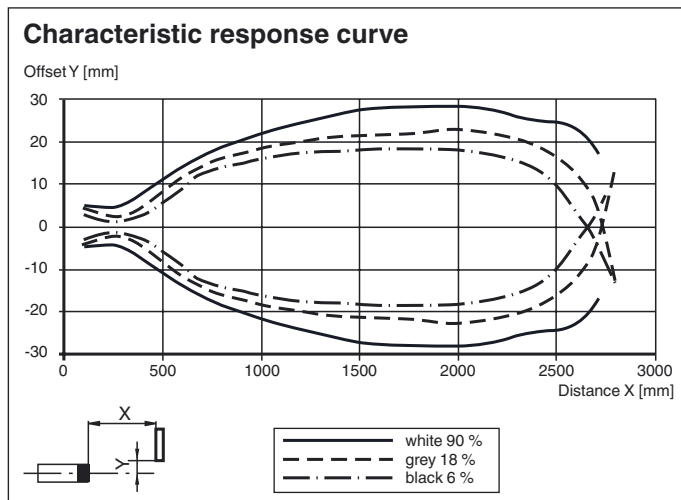
Compliance with standards and directives

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

Approvals and certificates

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

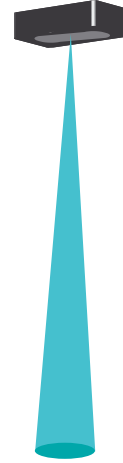
Curves/Diagrams



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

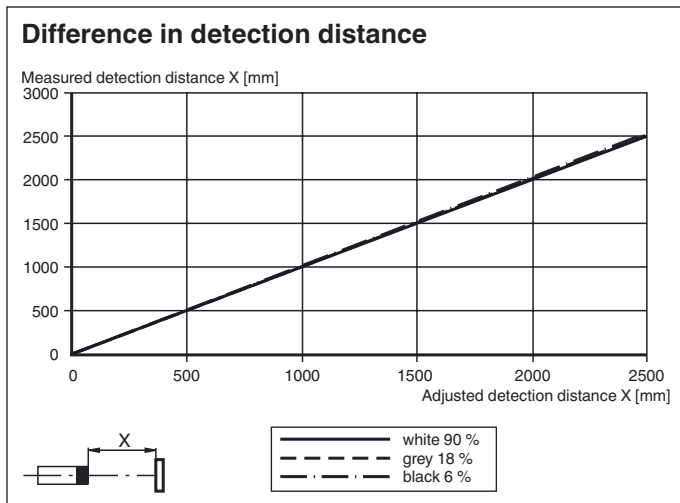
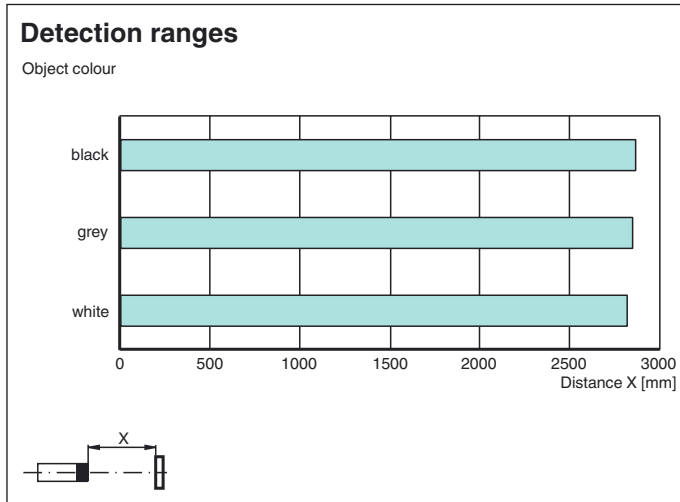
Flush Mounting AIR30

Installation cover for AIR30 series sensors

Wetterhaube AIR30

Weather hood for series AIR30

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



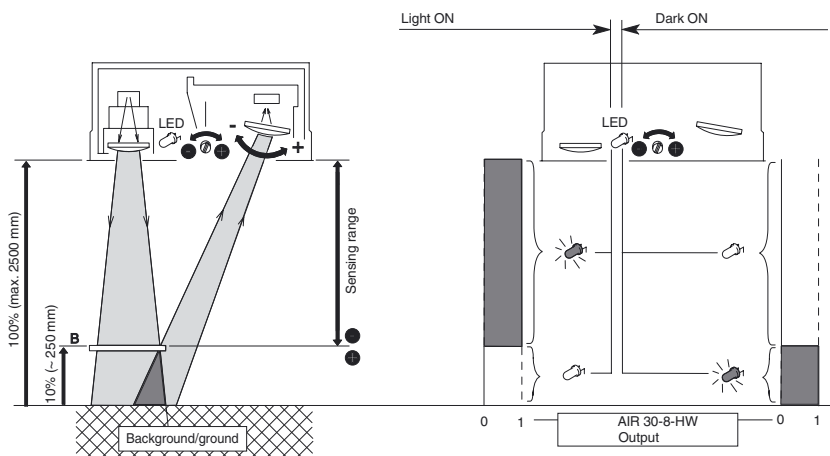
Operating principle

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:



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