

Model Number

AIR20-8-H-2200/25/38a

Active infrared scanner
with terminal compartment

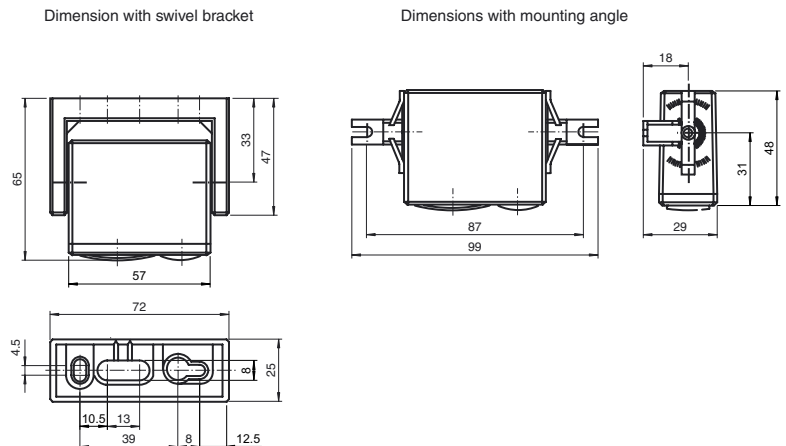
Features

- Single-beam diffuse mode sensor with background suppression
- Can be used to secure closing edges or as an opening impulse sensor on automatic doors
- Can also be used as door handle monitor on revolving doors
- Narrow, precise long range light beam
- Suitable for moving or stationary mounting
- Not sensitive to ambient light

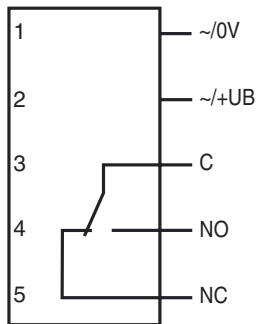
Product information

The AIR20 is an infrared diffuse mode sensor with background suppression that is specially designed for monitoring the closing edges on revolving doors. Its background suppression ensures reliable recognition of the objects to be detected. Due to its compact dimensions, the sensor can be installed in virtually all door drives.

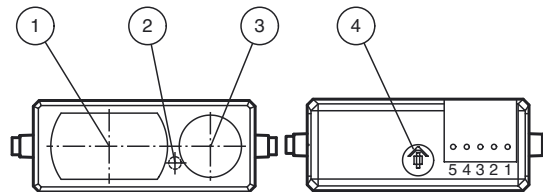
Dimensions



Electrical connection



Indicators/operating means



1	Receiver
2	Indication-LED
3	Transmitter
4	Detection range adjuster

Technical data**General specifications**

Detection range	Ex works settings: 1300 mm (adjustable)
Detection range min.	200 ... 1300 mm
Detection range max.	200 ... 2200 mm
Light source	IREL
Light type	modulated infrared light
Black/White difference (6 %/90 %)	≤ 400 mm at Tw 1300 mm
Operating mode	Background suppression
Diameter of the light spot	60 mm at Tw 1300 mm
Angle of divergence	approx. 2.6 °
Accessories provided	Swivel bracket, Mounting angle, Connecting cable

Functional safety related parameters

MTTF _d	1420 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function display	LED red: lights up when output is active
Controls	Detection range adjuster

Electrical specifications

Operating voltage	U _B	12 ... 30 V DC / 18 ... 28 V AC
No-load supply current	I ₀	< 50 mA

Output

Switching type	light on	
Signal output	Relay, 1 alternator	
Switching voltage	≤ 48 V AC / DC	
Switching current	≤ 0.5 A AC / 1 A DC	
Response time	approx. 50 ms	
De-energized delay	t _{off}	approx. 250 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	plug-in screw terminals (5 m connecting cable in delivery package)
Material	
Housing	ABS
Optical face	PMMA
Mass	50 g
Note	Safety fuse ≤ 315 mA (slow-blow) according to IEC 60127-2 Sheet 1

Compliance with standards and directives

Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2 without EN 61000-4-5, EN 61000-4-11, EN 61000-6-3
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007
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
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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 precise detection area to be set and ensures reliable detection of people.

Typical applications

- Closing edge monitoring on revolving doors
- Opening impulse sensor and closing-edge monitoring on automatic doors
- Presence check for turnstiles and safety checkpoints

Detection area**Accessories****Flush Mounting AIR20**

Flush-mounted frame for sensors in the AIR20

AIR20/PIR20 Weather Cap

All-weather hood for AIR20 and PIR20 series sensors

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