



Active infrared scanner

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



- 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

Single-beam light scanners with finely bundled light beam for monitoring main and ancillary closing edges



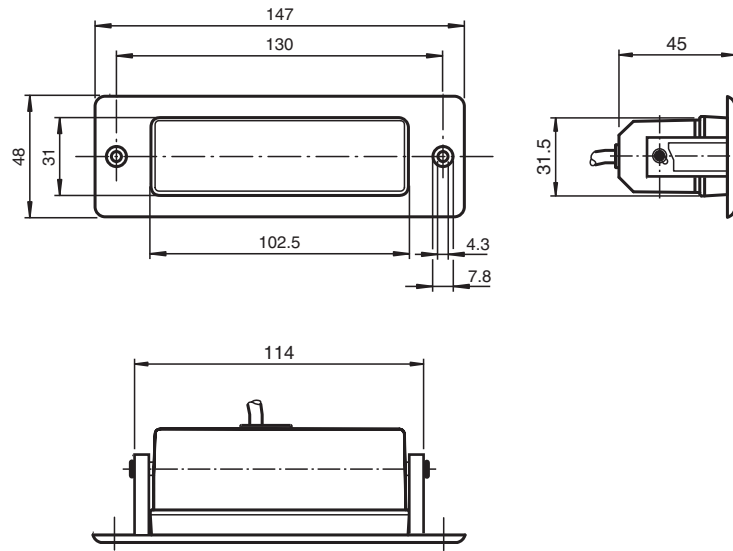
Function

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.

Application

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

Dimensions



Technical Data

General specifications	
Detection range min.	100 ... 1000 mm
Detection range max.	100 ... 2500 mm
Light source	IRED
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
Opening angle	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 indicator	LED red: lights up when output is active
Control elements	Sensing range adjuster, light-on/dark-on changeover switch
Factory setting	light-on
Electrical specifications	
Operating voltage	U _B 10 ... 48 V DC / 11 ... 36 V AC
No-load supply current	I ₀ 100 mA

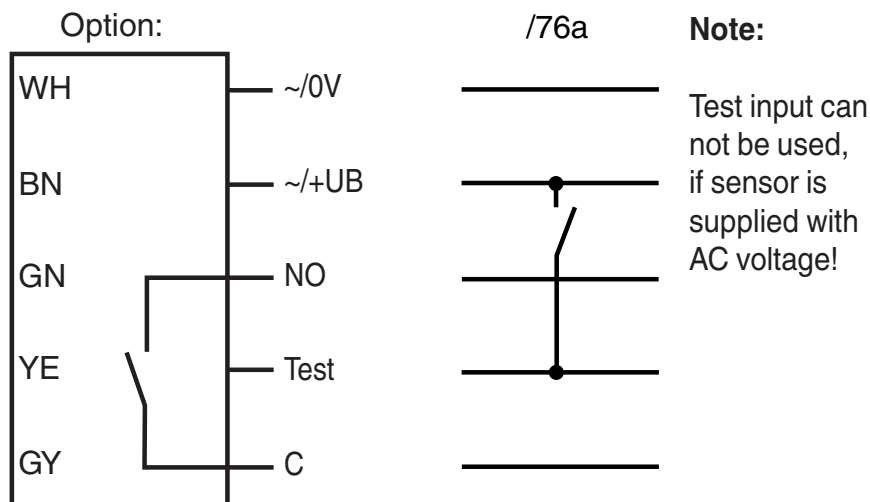
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

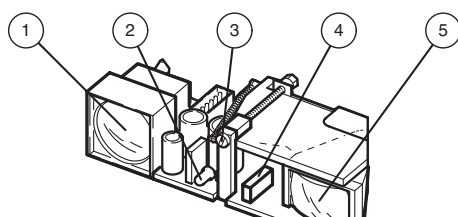
Technical Data

Input		
Test input		emitter deactivation at +U _B
Output		
Switching type		light/dark on, switchable
Signal output		relay, 1 NO
Switching voltage		≤ 50 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
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
Approvals and certificates		
CCC approval		Certified by China Compulsory Certification (CCC)
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-20 ... 75 °C (-4 ... 167 °F)
Mechanical specifications		
Degree of protection		IP52
Connection		5 m fixed cable
Material		
Housing		plastic
Optical face		Luran®
Mass		50 g

Connection Assignment

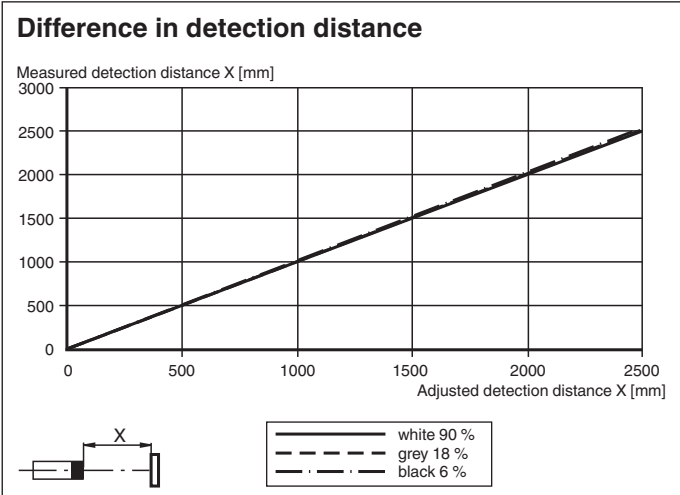
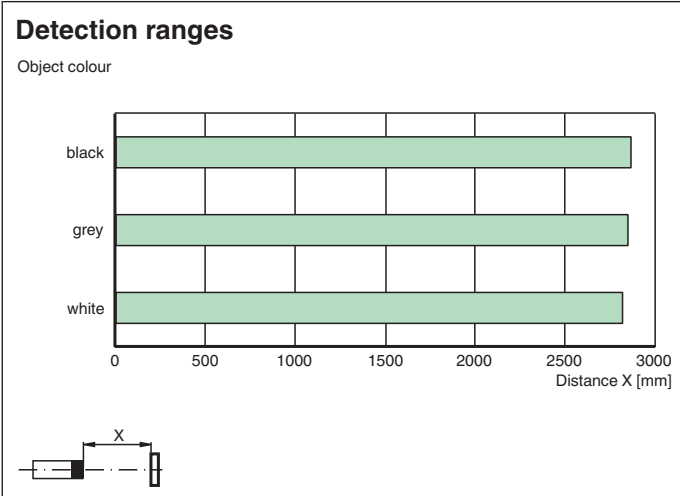
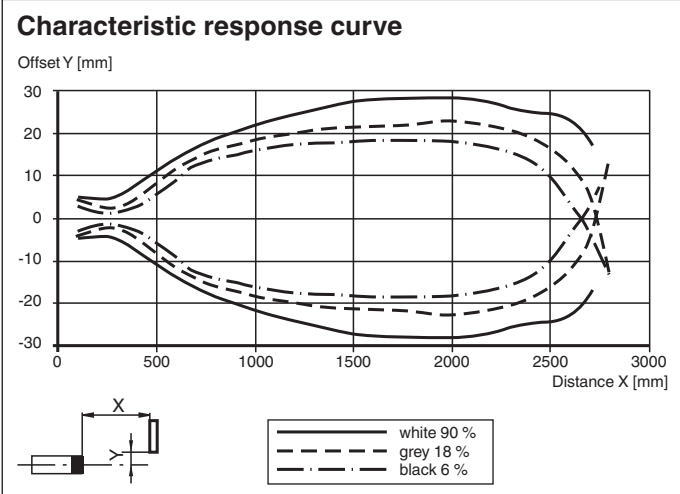


Assembly



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

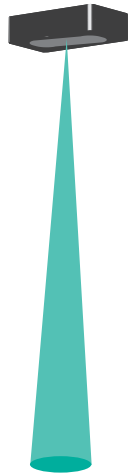
Characteristic Curve






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Application



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

Function 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:

