CE

Model Number

PROSCAN/38a

Active infrared scanner
with fixed cable

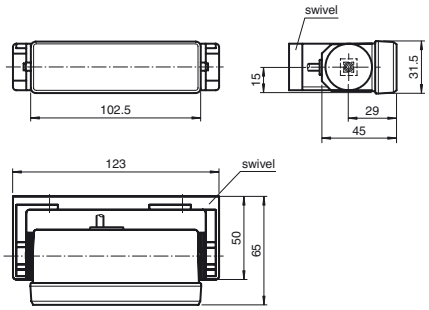
Features

- Fan-shaped detection field with up to 12 beams
- Closing safety monitoring over the complete door width
- Adjustable detection fields for different door widths
- Automatic drift compensation

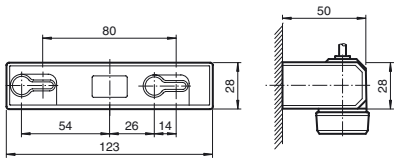
Product information

The compact ProScan energetic light scanner operates using an integrated source of infrared light and creates a fan-shaped detection field consisting of a maximum of 12 independent light beams. Since the beam intensifies toward the center of the fan, the area around the closing edges in particular is monitored virtually seamlessly. The sensors are self-programming and automatically adapt to any environment, learn the environment, and even automatically adapt to subsequent changes. Other notable features include the high level of sensitivity, ambient light immunity and compensation of long-term drift. This function guarantees reliable long-term use, even in dirty, rainy or snowy conditions.

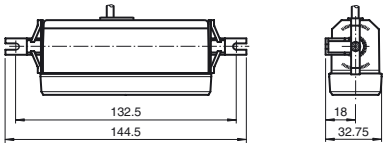
Dimensions



Mounting dimensions for swivel

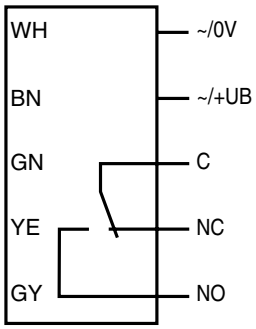


Mounting dimensions with mounting bracket set AIR30

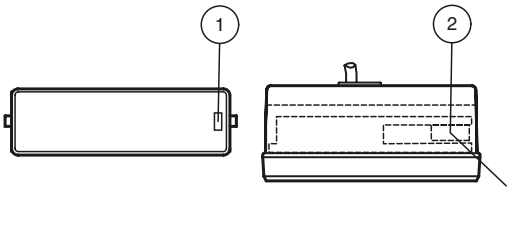


Electrical connection

Option:



Indicators/operating means



1	Functional display	red
2	Programming switch	

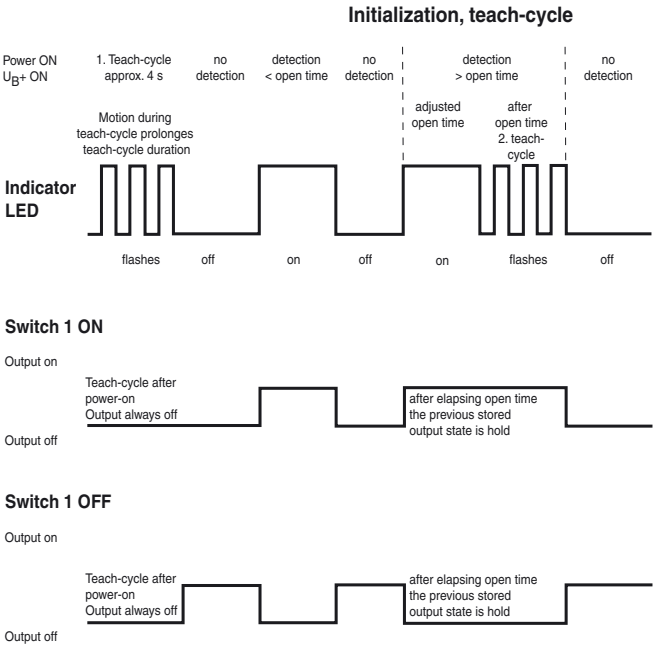
Release date: 2012-05-30 16:33 Date of issue: 2012-08-03 419564_eng.xml

Technical data

General specifications		
Detection field		total field: 2300 mm x 80 mm left/right field: 1150 mm x 80 mm center field: 1000 mm x 80 mm || (installation height: 2 m)
Light source		12 x IRED
Light type		modulated infrared light
Teach-in time		approx. 4 s
Open time		3 min/10 s, programmable
Accessories provided		Swivel bracket, Mounting bracket
Functional safety related parameters		
$MTTF_d$		780 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		60 %
Indicators/operating means		
Function display		LED red: on for object detection, flashes during teaching phase
Controls		Programmble switch for switching type, open time, detection field
Electrical specifications		
Operating voltage	U_B	12 ... 38 V DC / 12 ... 28 V AC
Ripple		10 %
No-load supply current	I_0	100 mA
Power consumption	P_0	3 VA
Output		
Switching type		Output active / inactive programmable
Signal output		Relay, 1 alternator
Switching voltage		48 V DC
Switching current		1 A at 24 V DC
Response time		< 50 ms
De-energized delay	t_{off}	200 ms
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-20 ... 70 °C (-4 ... 158 °F)
Mechanical specifications		
Mounting height		1000 ... 2500 mm
Protection degree		IP52
Connection		5 m fixed cable
Material		
Housing		ABS
Optical face		PMMA
Mass		approx. 100 g

Curves/Diagrams

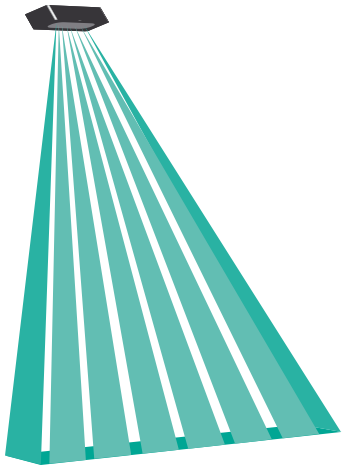
Timing diagram Proscan



Typical applications

- Closing edge protection on automatic sliding doors, for example sliding doors in shopping centers, public buildings and office buildings
- Version T with e1 approval: Closing edge protection on automatic doors on public transport vehicles, such as buses and trains
- Threshold monitoring on revolving doors

Detection area

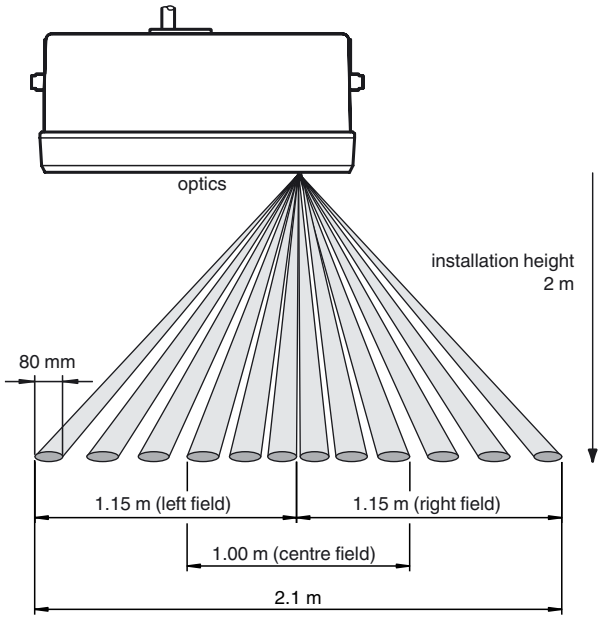


Accessories

UP-Einbaurahmen
Mounting frame for sensors in the AIR30 and PROSCAN series

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

Release date: 2012-05-30 16:33 Date of issue: 2012-08-03 419564_eng.xml



Functional principle

The ProScan is a 12-beam energetic light scanner based on the principles of active infrared. The beams, which are switched independently, enable the sensor to fan out across an extremely wide and narrow detection field in the area of the door.
The clearly defined, fan-shaped detection field on the ProScan can be set manually in four areas: half fan to the right, half fan to the left, central fan and full detection field.
Immediately after being switched on for the first time, the ProScan programs the reflected pattern of the detected background as the reference signal. During this process, the ProScan automatically adapts to the relevant installation and assembly environment. Since each of the individual light beams on the ProScan independently programs its specific reception level, there is no need to manually configure complex sensitivity settings.
Once the programming phase is complete, the light reflected from each of the 12 light beams is evaluated. Each time there is a difference between the reflected value of an individual light beam and the reference signal, a switching process is initiated.

"Open Time" Function
The ProScan is a self-programming device, and automatically adjusts to changes in its environment. If the ProScan detects a stationary object that does not correspond to the programmed reference signal (for example, a suitcase), ProScan interprets this as a permanent change in the environment and initiates a new self teach-in process after a preset time (referred to as "Open Time") has elapsed. Open Time can be adjusted to meet customer application requirements.

"Suitcase" Function
After a background has been changed, the ProScan "Suitcase" function allows the reference to be adjusted back to the original background. Once a self-taught object, such as a suitcase, is removed from the detection field again, ProScan returns to the original reference. A new learning process is not required.

Compensating for long-term drifts
The ProScan is able to compensate for long-term drifts. Using this function, changes to the ground reflectance (for example, caused by rain or snow), as well as temperature fluctuations and dirt on the optical surface or ground are automatically compensated for.

Test input (optional)
Using the integrated test input, the overall function of the ProScan can be reliably checked by testing all 12 light beams simultaneously.

Programming options

The programming switch can be accessed by gently pulling the lens assembly away from the housing. A small flat-head screwdriver can be used to gently push the cover off by the slots located at the sides of the cover.

Each switch is activated when the pin is connected to the hook (ON); if the pin is not connected to the hook, the switch is deactivated (OFF).

The programming options are listed in the following table.

Switches	Output active during detection	Output inactive during detection	Open Time 10 seconds	Open Time PROSCAN 3 min PROSCAN-T 3 seconds
1	ON	OFF		
2			ON	OFF

Release date: 2012-05-30 16:33 Date of issue: 2012-08-03 419564_eng.xml

Detecting field at installation height of 2000 mm				
Switches	**2300 mm x 80 mm Full field**	**1150 mm x 80 mm Left field**	**1150 mm x 80 mm Right field**	**1000 mm x 80 mm Center field**
3	OFF	OFF	ON	ON
4	OFF	ON	OFF	ON

Release date: 2012-05-30 16:33 Date of issue: 2012-08-03 419564_eng.xml

Pepperl+Fuchs Group www.pepperl-fuchs.com
USA: +1 330 486 0001 fa-info@us.pepperl-fuchs.com
Germany: +49 621 776-4411 fa-info@pepperl-fuchs.com
Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com