

TopScan G3

Presence detector for
automatic pedestrian swing doors

Operating Instructions

1 Safety instructions



The unit may only be operated from a protection low-voltage system with electrical separation. The unit may only be opened and repaired by your supplier! Never touch any electronic or optical components of the sensor.



Protect the sensor against rain and do not install it in the vicinity of fluorescent lamps.

2 Preparation / Installation

2.1 Opening the housing



- | | |
|-------------------------------|--|
| ① Aluminium housing (profile) | Remove the end cap by loosening the screws. |
| ② Sensor (AIR 16 re) | Remove the front cover. |
| ③ End cap 2 x | |
| ④ Front cover | |
| ⑤ Mounting brackets 2 x | Note: |
| ⑥ Phillips head screws 2 x | Depending on the application, it will be necessary to remove either the left or right end cap. |

2.2 Removing the sensor

Option 1:

Release the red screws on both mounting brackets and then slide them to the side.

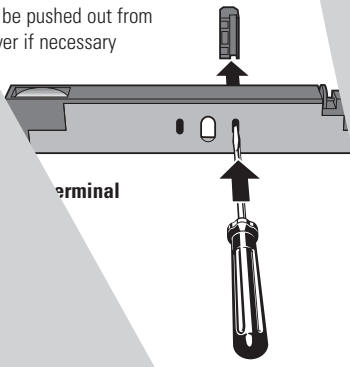
Option 2:

Release the red screws. Then slide the bracket holders together with the sensor carefully out of the aluminium housing.

2.5 Electrical connection

The terminal block can be pushed out from below with a screwdriver if necessary

Connect the terminal in accordance with the wiring diagram

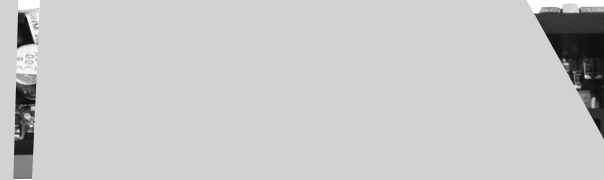
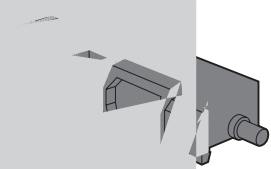


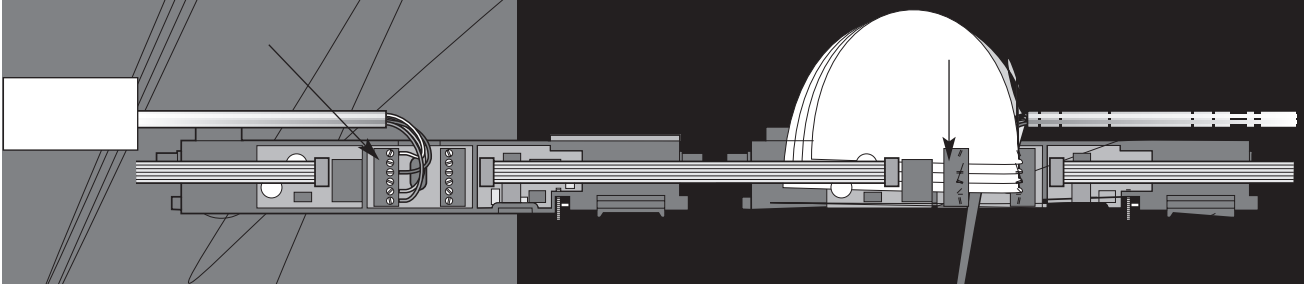
*The order of connection is important

Warning: The sensor is switched off when the detection is not active. This causes the sensor to stop supplying power.

of test input:

The test input is active (voltage) when the sensor is switched off. This causes the sensor to stop supplying power.





4 Troubleshooting

Problem	Possible causes	Corrective actions
Doors only open cyclically or partially	<ul style="list-style-type: none"> – In the moving application, the sensor is configured for stationary mode – Scanning range set too close to the ground 	<ul style="list-style-type: none"> – Change the operating mode to moving, see chapter 2.5 – Set the scanning range correctly, see chap. 2.9
Doors do not open LED does not light up	<ul style="list-style-type: none"> – Switching type (active/passive) set incorrectly 	<ul style="list-style-type: none"> – Change switching type (active/passive), see chapter 2.5
Doors do not open LED is permanently lit	<ul style="list-style-type: none"> – Scanning range set too close to the ground 	<ul style="list-style-type: none"> – Set the scanning range correctly, see chap. 2.9
Door opens LED is permanently lit	<ul style="list-style-type: none"> – Switching type (active/passive) set incorrectly – Scanning range set too close to the ground 	<ul style="list-style-type: none"> – Change switching type (active/passive), see chapter 2.5 – Set the scanning range correctly, see chap. 2.9
The sensor detects no objects	<ul style="list-style-type: none"> – Scanning range set too far from the ground – Flat-ribbon connections between two sensors are connected incorrectly – Heavy direct rain 	<ul style="list-style-type: none"> – Set the scanning range correctly, see chap. 2.9 – Replace sensors
The sensor detects permanently	<ul style="list-style-type: none"> – Fluorescent lamp in the vicinity of the sensor 	<ul style="list-style-type: none"> – Replace sensor – Change inclination angle, see chapter 2.11 – Change scanning range, see chapter 2.9 – Remove fluorescent lamp
Irregular detection without an object in the detection field	<ul style="list-style-type: none"> – Reflecting background and at the same time almost vertically set inclination angle 	<ul style="list-style-type: none"> – Increase inclination angle (see chapter 2.11) or remove reflecting background

5 Technical data

Detection area	100–2500 mm (3.94"–98.4") 500–2500 mm (19.7"–98.4")	For stationary mode For moving mode
Scanning range setting	Mech. adjustment wheel 1500–2500 mm (59.1"–98.4")	Triangulation principle
Temperature dependence	+60°C (+140°F): +10% –20°C (–4°F): –10%	Deviation from 20°C (68°F) with reference to the scanning range set
Black/White difference	max. 20% White: Larger scanning range Black: Smaller scanning range	Difference between black and white with reference to the scanning range set
Detection area	Approx. 75 mm (2.95") diameter	For a scanning range of 2000 mm (78.74")
Type of light	IREL	Pulsed alternating light 880 nm
Operating voltage	17–30 V DC / 18–28 V AC	
Current consumption	< 110 mA	
Signal output	Relay, changeover contact Max. switching voltage 48V AC/DC Max. switching current 0.5A AC/DC Max. switching capacity 55VA/24W	electrically isolated Nominal current (ohmic load) 1A/ 24V DC For ind./ cap. load, provide spark quenching Ohmic load
Response time on detection	Approx. 30 ms	
Drop-out time after detection	Max. 150 ms Max. 2 s	For stationary mode For moving mode
Response time with test signal	Max. 500 ms	Only possible for DC operation
Test input	With +UB = 17–30 V DC	Only for stationary mode
Operating mode	Moving / stationary	Can be switched over
Function indication	Red LED	Lights up when an object is detected
Connection type	Plug-in screw terminal	6 x 0.25 mm ² (AWG 23)
Protection class	Suitable for use in acc. with IP52	
Housing material	Aluminium/ABS	
Front cover	PC (black)	
Distance between optical units	150 mm (5.91")	Transmitter/receiver
Operating temperature	–20°C to +60°C (–4°F to +140°F)	
Storage temperature	–40°C to +80°C (–40°F to +176°F)	
Weight	45 g (1.59 oz.)	Without housing
Sensor dimensions	198.5 x 31 x 20 mm (7.8" x 1.2" x 0.78")	Length / Width / Height without housing
Housing colour	Silver, black or white	Depending on version
Electromagnetic compatibility	Interference immunity in acc with: EN 61000-6-1, EN 61000-6-2 Emitted interference in acc. with: EN 61000-6-3, EN 61000-6-4	CE in acc. with EMC directive 89/336 EEC

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