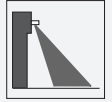


Sensor module, interface

DoorScan-I

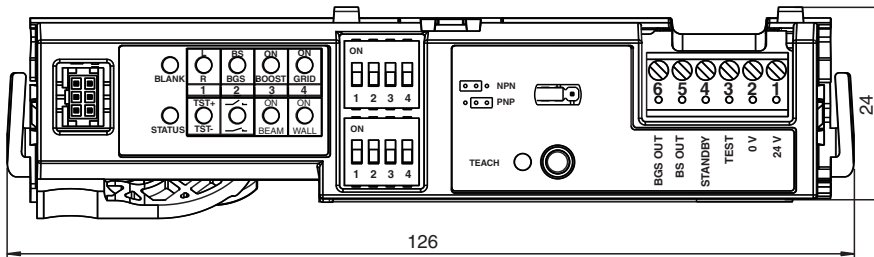


- Sensor module for configurable DoorScan® presence sensor
- Multi-function interface with full operation
- Complete system supply for the entire system for one door
- Can also be used to supply the emitter and receiver modules with power
- Single button commissioning with automatic Teach-in function
- SIL 2, certified in accordance with DIN 18650/EN 16005
- Tool-free module mounting using snap-in mechanism
- Switchable NPN or PNP outputs

Replacement/extension sensor module for installation in the DoorScan® and TopScan sensor profile, multifunction interface module



Dimensions



Technical Data

General specifications	
Operating mode	Background evaluation
Functional safety related parameters	
Safety Integrity Level (SIL)	SIL 2
Performance level (PL)	PL d
Category	Cat. 2
MTTF _d	2716 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	90 %
Indicators/operating means	
Function indicator	Interface: Red LED: detection, excess gain, fault code Yellow LED: teach status Green LED: blank status Green LED: DIP switch status
Electrical specifications	
Operating voltage	U _B 24 V DC +/- 20 %
No-load supply current	I ₀ 30 mA
Input	

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

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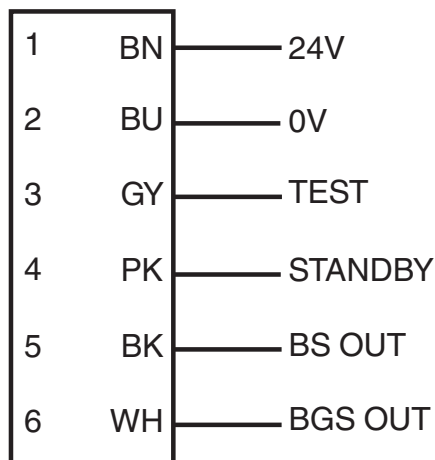
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Technical Data

Test input	high level ≥ 15 V low level ≤ 2 V
Control input	Standby active at U = 11 V DC at 30 V DC
Output	
Switching type	light on
Signal output	switchable NPN or PNP , short-circuit protected
Switching voltage	max. 30 V DC
Switching current	max. 100 mA
Response time	≤ 52 ms ≤ 200 ms in boost operating mode
Conformity	
Functional safety	ISO 13849-1 ; EN 61508 part1-4
Product standard	EN 12978
Approvals and certificates	
CCC approval	CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions	
Ambient temperature	-30 ... 60 °C (-22 ... 140 °F)
Mechanical specifications	
Mounting height	max. 3500 mm
Degree of protection	IP54 (iwhen mounted)
Connection	plug strip , 6-pin
Mass	approx. 30 g

Connection Assignment



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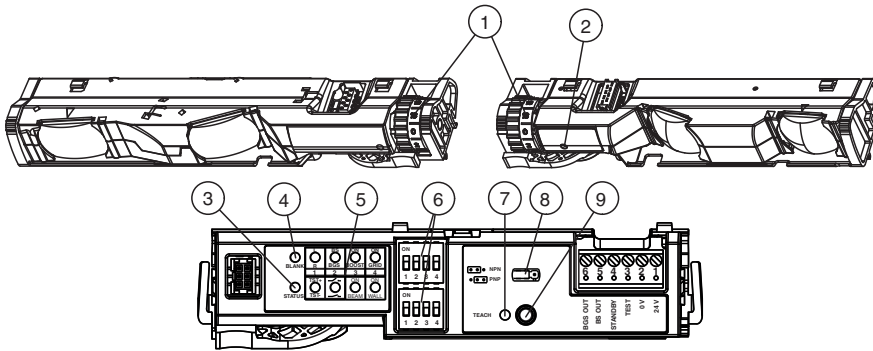
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Assembly



- | | |
|---|-----------------------------|
| 1 Adjusting wheel for inclination angle | 6 DIP switch - rows 1 and 2 |
| 2 Receiver indicator LED, red | 7 Teach LED, yellow |
| 3 Status LED, red | 8 Jumper |
| 4 Blank LED, green | 9 Teach button |
| 5 DIP LEDs, green | |

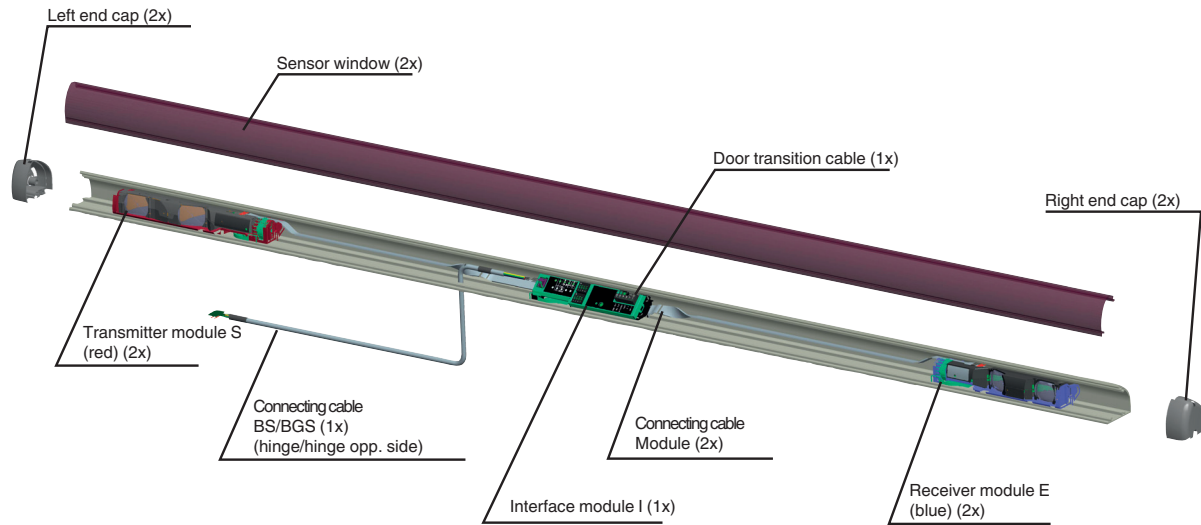
Accessories

	DoorScan Cable BS/BGS	Connecting cable for transition from hinge side to leading edge side
	DoorScan Transfer Loop	Door transition cable to door controller for DoorScan® sensor, including cable sheathing and strain relief
	DoorScan Connection Cable 5p	Connecting cable with 5 plug-in connections for DoorScan®-I/-T/-R modules
	DoorScan Adapter	Adapter module for installation in the DoorScan® and TopScan sensor profile, multifunction interface module
	DoorScan Cable Adapter	Adapter module for installation in the DoorScan® sensor profile, multifunction interface module

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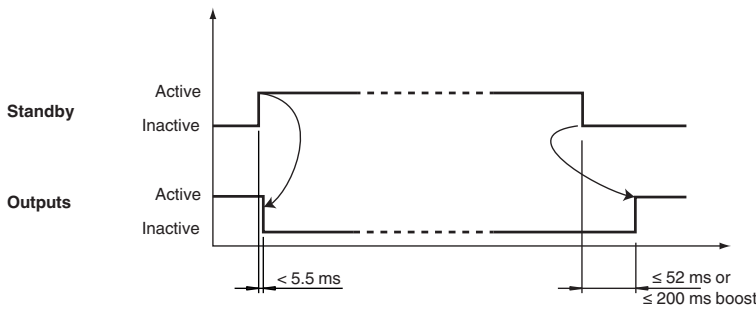
Additional Information

Layout of the sensor system for a door (door hinge side/hinge opposite side)



Standby

When the supply voltage is applied, the sensor is put into standby; the energy consumption is reduced to less than 80 % in this state. Once the signal is deactivated, the sensor is immediately ready for operation and enables the signal outputs within 52 ms and/or 200 ms (in boost operating mode) if the detection field is free.



Test input circuit

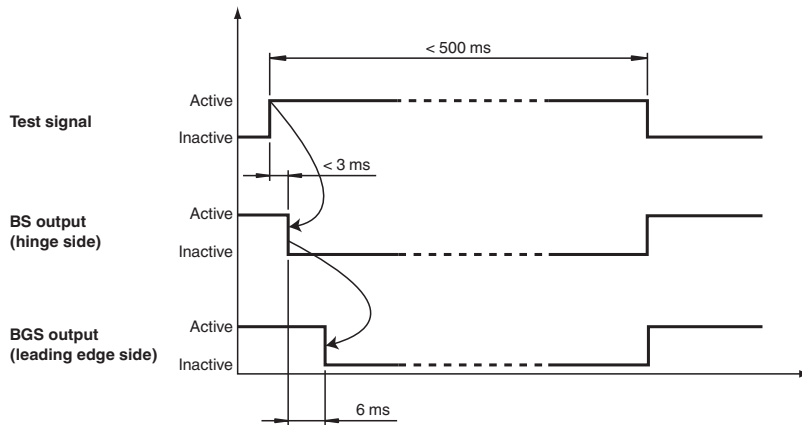
DoorScan test input circuit

Test Function	Test inactive	Test active	Interface, bottom row, Dip switch 1 and 2
High active	[Circuit diagram: +24 V Controller, DoorScan Interface, Test input, GND or open.]	[Circuit diagram: +24 V Controller, DoorScan Interface, Test input, GND or open.]	[Dip switch diagram: ON, 1, 2]
Low active	[Circuit diagram: +24 V Controller or open, DoorScan Interface, Test input, GND or open.]	[Circuit diagram: +24 V Controller or open, DoorScan Interface, Test input, GND or open.]	[Dip switch diagram: ON, 1, 2]
High inactive	[Circuit diagram: +24 V Controller, DoorScan Interface, Test input, GND or open.]	[Circuit diagram: +24 V Controller, DoorScan Interface, Test input, GND or open.]	[Dip switch diagram: ON, 1, 2]
Low inactive	[Circuit diagram: Controller, DoorScan Interface, Test input, GND or open.]	[Circuit diagram: Controller, DoorScan Interface, Test input, GND or open.]	[Dip switch diagram: ON, 1, 2]

Test signal

The signal outputs enable crossed circuit detection. To do so, the outputs carry out a delayed shutoff from each other (see signal curve).

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**Note!**

The test signal must be in contact with the test input for at least 9 ms!
The duration of the test signal must not exceed 0.5 s, otherwise this will deactivate the sensor.

Operating modes**Boost operating mode**

Activation with dark floors, even at high installation heights (increased sensitivity). In these cases, the response time of the sensor is increased from 50 ms to 200 ms. If necessary, the speed of the door must be adjusted to the response time.

Grid operating mode

Activation in the event of faults due to metal grating on the ground. Used where metal grating and shafts are present in the detection field.

BEAM

Off: outer beams normal

On: outer beams at an angle (factory setting)

You can switch off the beams extending beyond the emitter modules manually to avoid detection of deep door jambs.

WALL

Off: automatic wall suppression not active

On: automatic wall suppression active (factory setting)

If the door panel does not open against a wall, you can switch off wall suppression to accelerate the commissioning process. Metal grating mode is improved if receiver modules are used from device version V.03 onward.

Accessories

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