Dimensions

126

24

Electrical connection

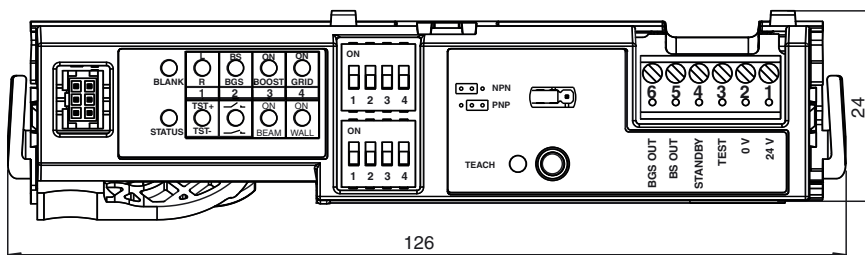|		
1	BN	24V
2	BU	0V
3	GY	TEST
4	PK	STANDBY
5	BK	BS OUT
6	WH	BGS OUT

Model Number

DoorScan-I

Sensor module, interface

Features

- 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
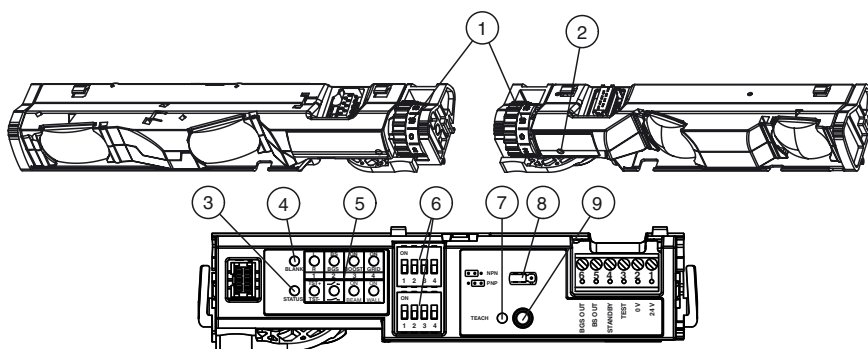
- Switchable NPN or PNP outputs

Indicators/operating means

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

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

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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

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

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

Approvals and certificates

CCC approval	CCC approval / marking not required for products rated ≤36 V

Additional Information

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

Left end cap (2x)

Sensor window (2x)

Door transition cable (1x)

Transmitter module S (red) (2x)

Connecting cable BS/BGS (1x) (hinge/hinge opp. side)

Connecting cable Module (2x)

Interface module I (1x)
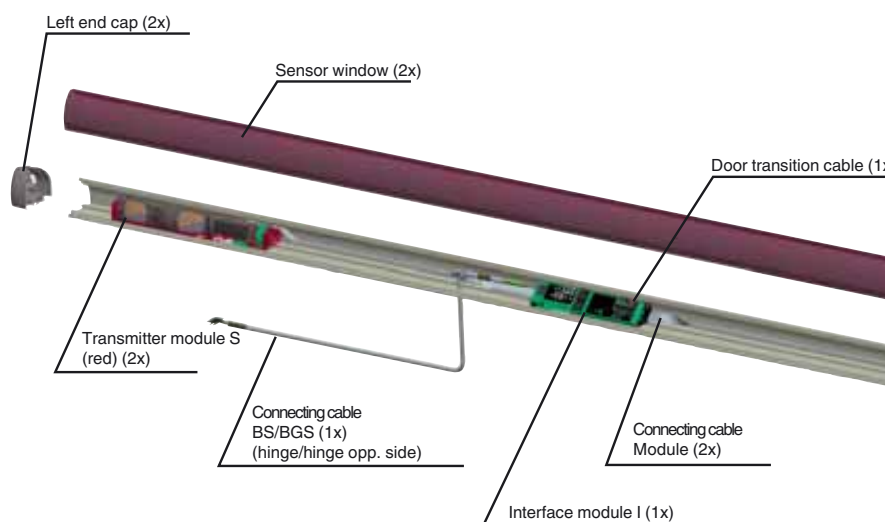
Standby

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

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

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

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

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boost operating mode) if the detection field is free.
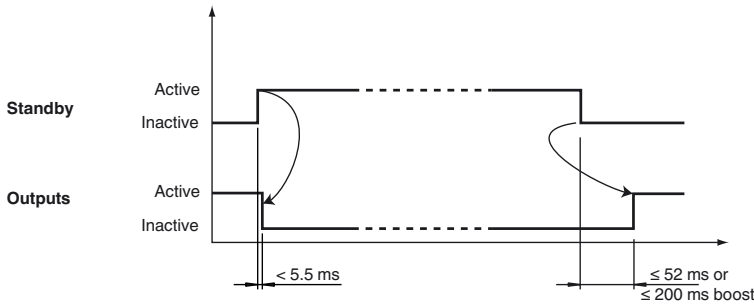
Test input circuit

DoorScan test input circuit

Test Function	Test inactive	Test active	Interface, bottom row, Dip switch 1 and 2
High active	+24 V Controller / DoorScan Interface / Test input / GND or open.	+24 V Controller / DoorScan Interface / Test input / GND or open.	ON 1 2
Low active	+24 V Controller or open / DoorScan Interface / Test input	+24 V Controller or open / DoorScan Interface / Test input	ON 1 2
High inactive	+24 V Controller / DoorScan Interface / Test input	+24 V Controller / DoorScan Interface / Test input	ON 1 2
Low inactive	Controller / DoorScan Interface / Test input	Controller / DoorScan Interface / Test input	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).
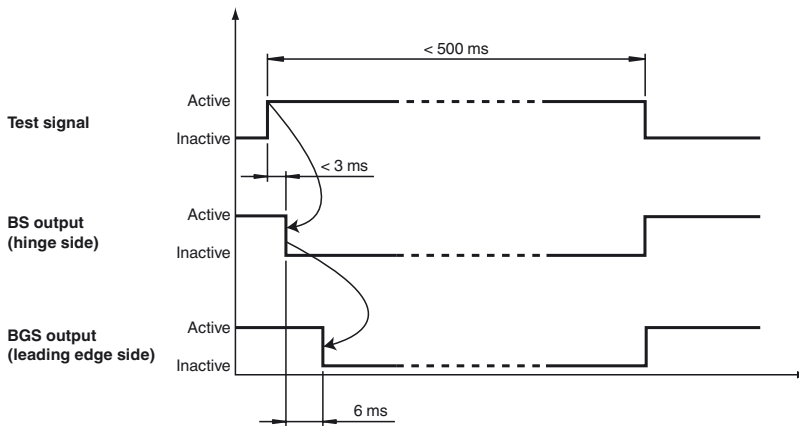
Note!
The test signal must be in contact with the test input for at least 9 ms!
The duration of the test signal must not exceed 0.5 s, otherwise this will deactivate the sensor.

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.

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

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.

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

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