Combined sensor

MotionScan

- Combined sensor for opening and securing automatic sliding doors
- Radar opening impulse
- Closing edge safety mechanism with diffuse sensor
- Safety mechanism in accordance with EN 16005
- Extra-large, adjustable protection field in front of the door
- Door learn function

Combination sensor for opening and protection

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Function

The two-in-one MotionScan sensor for opening and securing automatic sliding doors allows doors to be opened in a timely manner thanks to its large radar detection field. A large, adjustable infrared protection field ensures maximum safety. The special Door Learn function enables a protection field to be defined both in front of and behind the door. The MotionScan works reliably with a wide range of floor surfaces. It is incredibly easy to install and operate with single-button operation and multicolor LED display.

Dimensions

LED
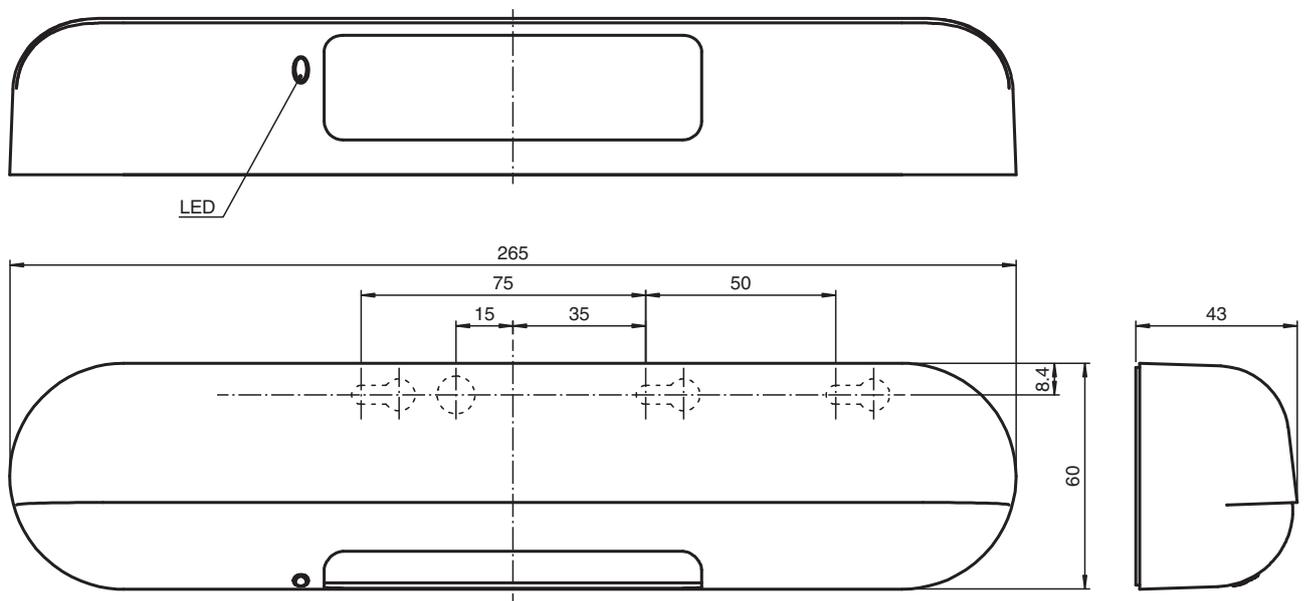
Technical Data

General specifications

Detection field	AIR, adjustable , total field: 2400 mm x 1000 mm (WxD) for a mounting height of 2200 mm
Detection field	Radar sensor 2500 mm x 4000 mm (d x w) at installation height of 2200 mm and 45° angle
Detection range max.	0 ... 3200 mm

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

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Technical Data

Light source		3 Series
Light type		modulated infrared light
Setting angle		-8 ... 4 °
Operating frequency		24.15 ... 24.25 GHz K-Band , Radar sensor
Transmitter radiated power (EIRP)		< 20 dBm
Functional safety related parameters		
Performance level (PL)		PL d
Category		Cat. 2
$MTTF_d$		339.83 a
Diagnostic Coverage (DC)		81.52 %
Indicators/operating means		
Function indicator		LED green/blue/red/orange
Control elements		DIP switch
Control elements		sensitivity adjustment
Parameterization indicator		LED flashes when in adjustment mode Fast orange
Electrical specifications		
Operating voltage	U_B	12 ... 24 V DC / 12 ... 24 V AC +/- 10%, 50 - 60 Hz
No-load supply current	I_0	≤ 80 mA at 24 V DC ≤ 150 mA at 12 V:
Power consumption	P_0	2.5 VA
Input		
Activation current		at 24 V DC 6 mA
Test input		active with $+U_B$
Output 1		
Output type		Infrared, optocoupler
Switching voltage		48 V DC
Switching current		300 mA resistive load
De-energized delay		0.5 s
Switching type		light/dark on selectable programmable
Response time		100 ms up to 200 ms
Output 2		
Output type		Radar, relay
Switching voltage		48 V DC
Switching current		100 mA resistive load
De-energized delay		1.5 s
Switching type		NO/NC programmable
Response time		100 ms up to 200 ms
Conformity		
Functional safety		ISO 13849-1
Product standard		EN 12978
Approvals and certificates		
CE conformity		2014/53/EU This device can be used in all countries within the European Union. In other countries, all applicable national regulations must be observed.
FCC approval		No - Use in North America is not permitted.
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Operating temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-20 ... 60 °C (-4 ... 140 °F)
Relative humidity		max. 80 %
Mechanical specifications		
Mounting height		max. 3200 mm
Degree of protection		IP54 (when mounted)
Connection		plug 8-pin , Connecting cable included with delivery
Material		

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Technical Data

Housing	ABS
Mass	approx. 260 g
Dimensions	(W x H x D) 265 mm 60 mm 43 mm
Note	Please refer to the package insert for information on how to mount and install the sensor correctly.
General information	
Scope of delivery	sensor , cable , 2 screws , Mounting aid , Instruction leaflet
Suitable series	
Series	MotionScan

Connection Assignment

RD
BK — AC/DC
WH — N.O.
GN — COM
YE — C
BU — E
GR
BN — Test
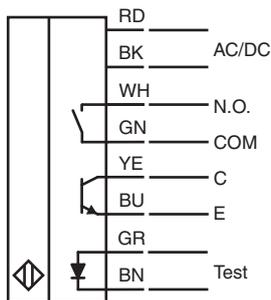
Assembly
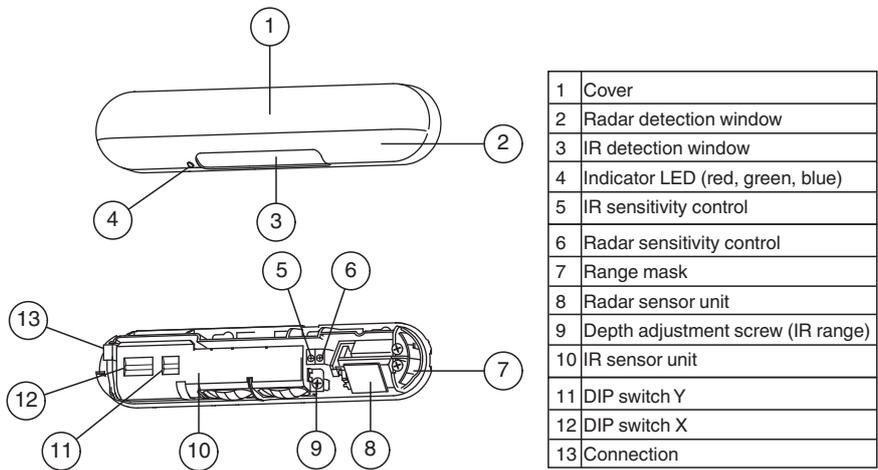
1	Cover
2	Radar detection window
3	IR detection window
4	Indicator LED (red, green, blue)
5	IR sensitivity control
6	Radar sensitivity control
7	Range mask
8	Radar sensor unit
9	Depth adjustment screw (IR range)
10	IR sensor unit
11	DIP switch Y
12	DIP switch X
13	Connection

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Characteristic Curve

IR:
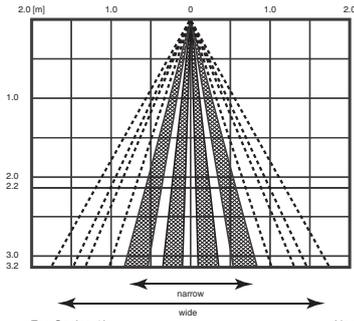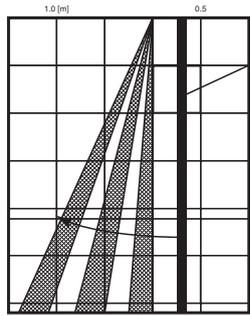
Far: Setting 4°   Near: Setting -8°
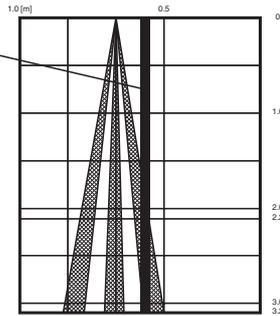
Radar:
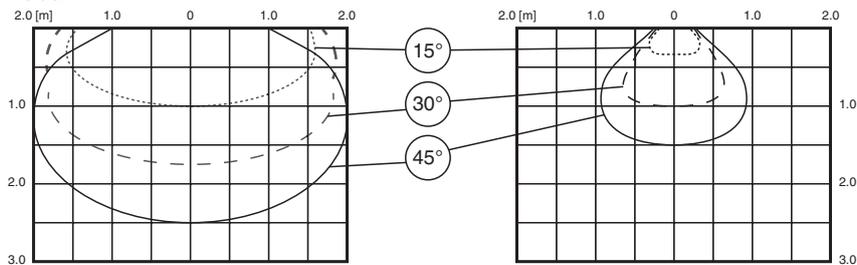
Accessories

	MotionScan Intern. Mounting	Ceiling mount kit
	MotionScan Mount. Bracket	Mounting bracket
	MotionScan Weather Cap	Weather cover

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

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Application

- Two-in-one sensor for opening and securing automatic sliding doors

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