



Thru-beam sensor

ML29-2P/25/103/143



- Single-beam monitoring with extremely narrow sensor
- Integrated circuit
- Test
- Simple installation - Plug & Play
- Ideal for installation in door profiles or frames
- Dual-beam version master/slave for dual-beam protection of closing edges

Single-beam miniature sensor, ideal for installing in frames or door profiles



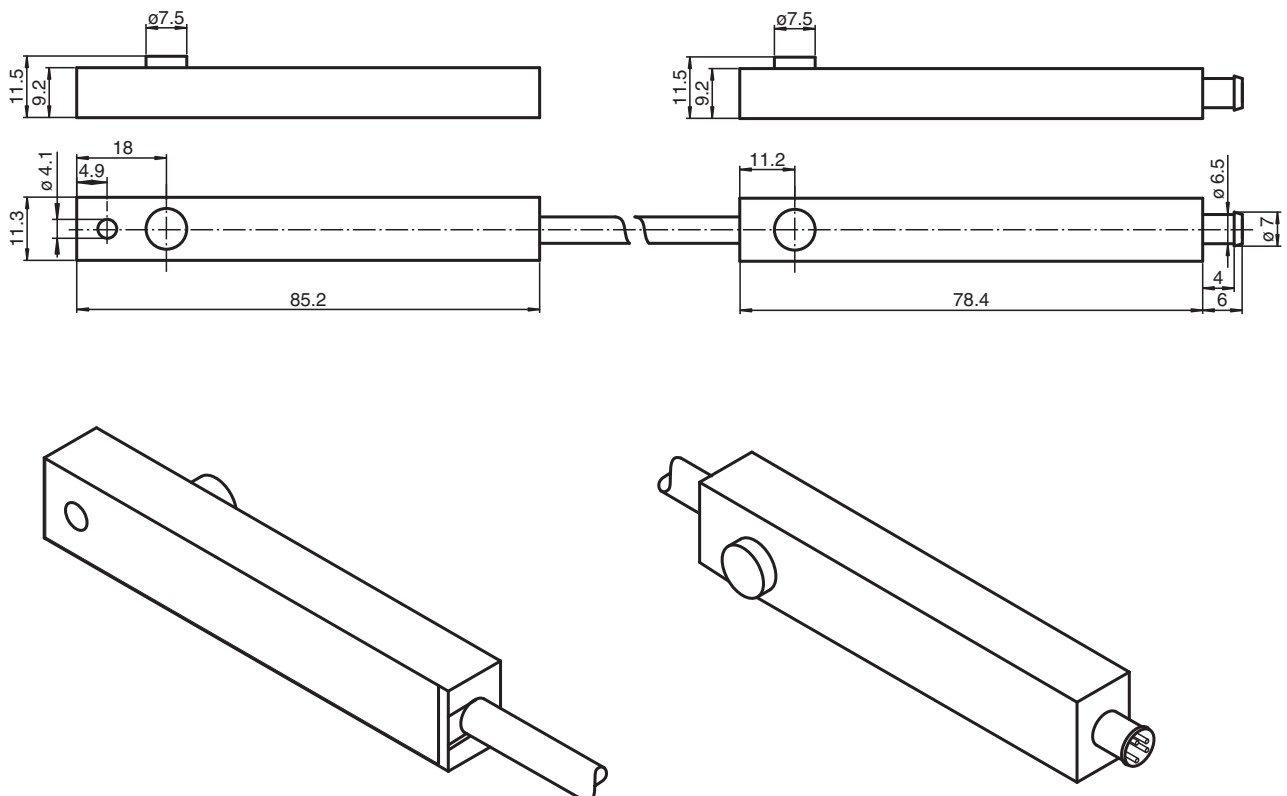
Function

The narrow miniature thru-beam sensors are a small and cost-effective solution, fitting in virtually any door frame. The ML29 and ML30 series offer fast, reliable detection at a distance of up to 8.5 m. The sensors are easy to mount on the profile, either using adhesive strips or a screw. A large opening angle ensures problem-free alignment. Several sensors can be mounted in a cross formation to offer multi-beam protection.

Application

- Person detection for automatic doors and gates
- Closing edge protection on sliding and revolving doors
- Threshold monitoring for elevator doors
- Step monitoring for doors on public transport vehicles
- Trigger function for restarting escalators

Dimensions



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

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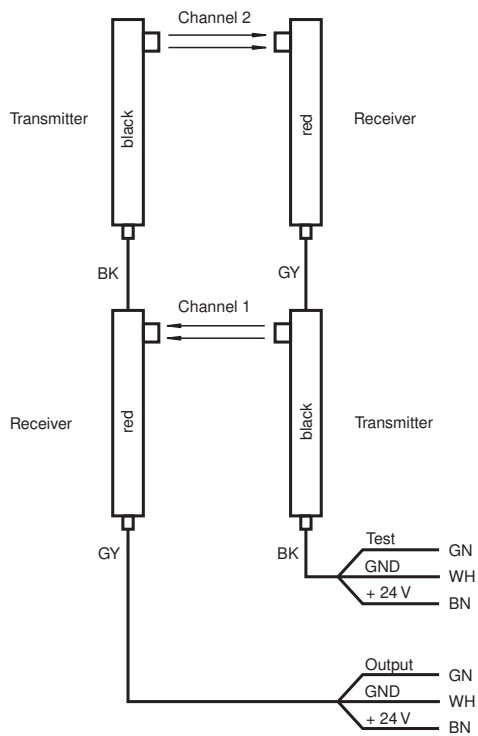
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Technical Data

General specifications			
Effective detection range			0 ... 5 m
Threshold detection range			7 m
Light source			IRED
Light type			modulated infrared light
Opening angle			+/- 8 °
Optical face			lateral
Ambient light limit			40000 Lux
Functional safety related parameters			
MTTF _d			880 a
Mission Time (T _M)			20 a
Diagnostic Coverage (DC)			0 %
Indicators/operating means			
Function indicator			LED red in receiver : lights up when receiving the light beam
Electrical specifications			
Operating voltage	U _B		11 ... 30 V DC
No-load supply current	I ₀		≤ 35 mA per device
Input			
Test input			Test: emitter deactivation at 0 V
Output			
Switching type			light-on
Signal output			1 PNP output, short-circuit protected, reverse polarity protected, open collector
Switching voltage			max. 30 V DC
Switching current			max. 0.1 A
Switching frequency	f		50 Hz
Response time			10 ms
Conformity			
Product standard			EN 60947-5-2
Compliance with standards and directives			
Standard conformity			
Standards			EN 61000-6-2, EN 61000-6-3
Approvals and certificates			
CCC approval			CCC approval / marking not required for products rated ≤36 V
Ambient conditions			
Ambient temperature			-20 ... 60 °C (-4 ... 140 °F)
Storage temperature			-20 ... 75 °C (-4 ... 167 °F)
Relative humidity			90 % , noncondensing
Mechanical specifications			
Degree of protection			IP65
Connection			4-pin plastic connector, 6.5 mm diameter
Material			
Housing			Transmitter: PMMA black / Receiver: red PMMA
Optical face			Plastic pane
Mass			555 g

Connection



Function Principle

The thru-beam sensor requires a pair of devices for operation, comprising a light transmitter and a light receiver. The emitter and receiver must be arranged in optical alignment with each other. The infrared light from the emitter is detected by the receiver and evaluated.

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