



### Model Number

**ML29-2P/25/103/143**

Thru-beam sensor

4-pin plastic connector, 6.5 mm diameter

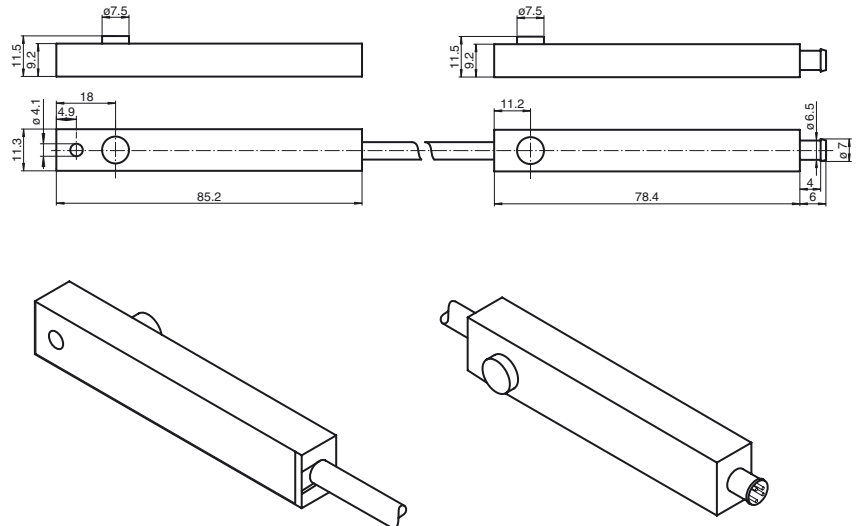
### Features

- 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

### Product information

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.

### Dimensions



### Electrical connection

see  
Description

**Technical data****General specifications**

Effective detection range	0 ... 5 m
Threshold detection range	7 m
Light source	IREL
Light type	modulated infrared light
Angle of divergence	+/- 8 °
Optical face	lateral
Ambient light limit	40000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	880 a
Mission Time (T <sub>M</sub> )	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 <sub>B</sub>	11 ... 30 V DC
No-load supply current	I <sub>0</sub>	≤ 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	

**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

**Compliance with standards and directives**

Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007
Standards	EN 61000-6-2, EN 61000-6-3

**Approvals and certificates**

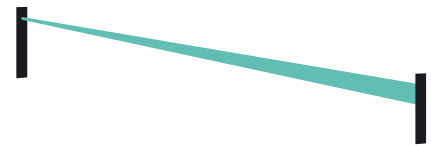
CCC approval	CCC approval / marking not required for products rated ≤36 V
--------------	--

**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.

**Description****Typical applications**

- 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

**Detection area****Accessories****ML29 Kupplungsdose 6m 4polig**

Female cordset with 6 m cable for ML29 series sensors

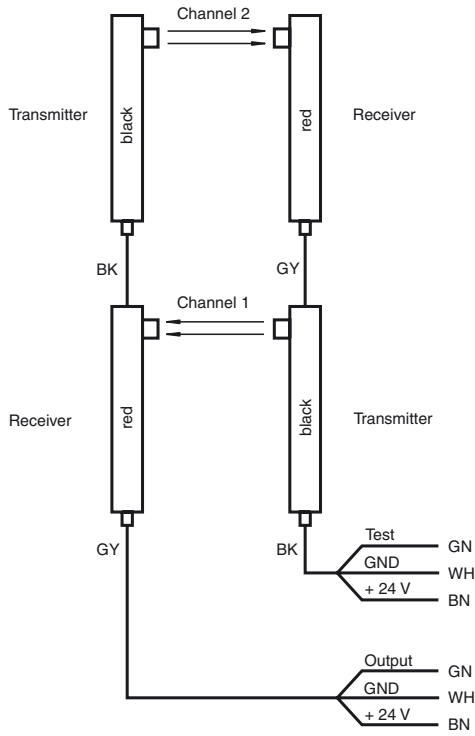
**ML29 Front Plate**

Front plate for thru-beam sensors in series ML29

**ML29 Kupplungsdose 3m 4polig**

Female cordset with 3 m cable for ML29 series sensors

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)



Release date: 2015-02-05 09:14 Date of issue: 2015-02-05 190842\_eng.xml

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com