



Model Number

ML300-P-6m-RT/25/98/103

Thru-beam sensor
with 3-pin, M8 x 1 connector

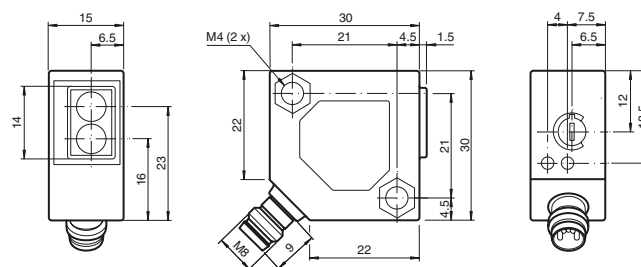
Features

- Miniature design
- Easy to use
- Visible red light
- 45° connector

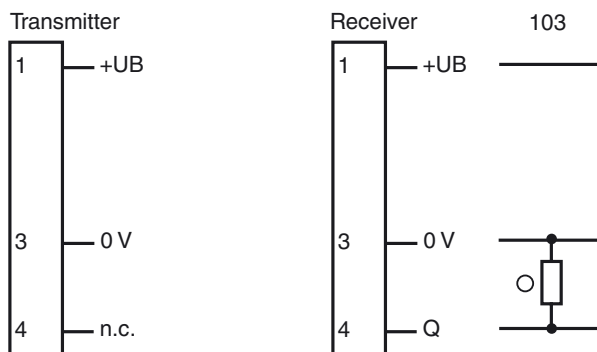
Product information

The ML300 series has a robust miniature housing and all the standard functional principles. Of particular note are the sensors with analog output, which return a value proportional to the distance. The 45° plug/cable connection ensures flexible mounting. An LED indicates a weak signal, e.g. due to dirt.

Dimensions



Electrical connection



○ = Light on
● = Dark on

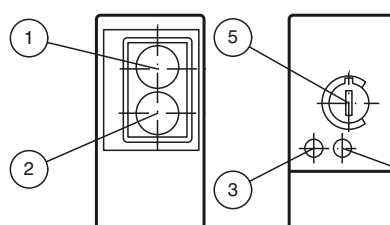
Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Indicators/operating means



1	Receiver	
2	Emitter	
3	Switching state	yellow only Receiver
4	Stability control	green only Receiver
5	Sensitivity adjustment	only Receiver

Technical data

System components

Emitter	ML300-T-6m-RT/98
Receiver	ML300-R-6m-RT/25/98/103

General specifications

Effective detection range	0 ... 6 m
Threshold detection range	8 m
Light source	LED
Light type	modulated visible red light 660 nm
Diameter of the light spot	approx. 500 mm at 6 m
Angle of divergence	approx. 5 °
Ambient light limit	
Continuous light	10000 Lux
Modulated light	5000 Lux

Indicators/operating means

Function indicator	LED yellow: lights up when output is active LED green: Sufficient stability control
Control elements	sensitivity adjustment

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I_0	Emitter: ≤ 20 mA Receiver: ≤ 20 mA

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	
Voltage drop	U _d	≤ 2 V DC
Switching frequency	f	1000 Hz
Response time	0.5 ms	

Conformity

Product standard	EN 60947-5-2
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Ambient conditions

Ambient temperature	-25 ... 55 °C (-13 ... 131 °F)
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Mechanical specifications

Housing width	30 mm
Housing height	30 mm
Housing depth	15 mm
Degree of protection	IP65
Connection	M8 x 1 connector, 3-pin
Material	
Housing	ABS
Optical face	plastic
Connector	metal
Mass	35 g (emitter and receiver)

Compliance with standards and directives

Standard conformity	
Shock and impact resistance	EN 60947-5-7 30 g, 11 ms, all axes
Vibration resistance	EN 60947-5-7, 10-55 Hz/1.5 mm amplitude, all axes

Approvals and certificates

EAC conformity	TR CU 020/2011
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Accessories

OMH-ML300-01

Bracket for mounting ML300 series sensors

OMH-ML300-02

Bracket for mounting ML300 series sensors on a 35 mm DIN rail

V3-GM-2M-PVC

Female cordset single-ended, M8, 3-pin, PVC cable

V3-WM-2M-PVC

Female cordset single-ended, M8, 3-pin, PVC cable

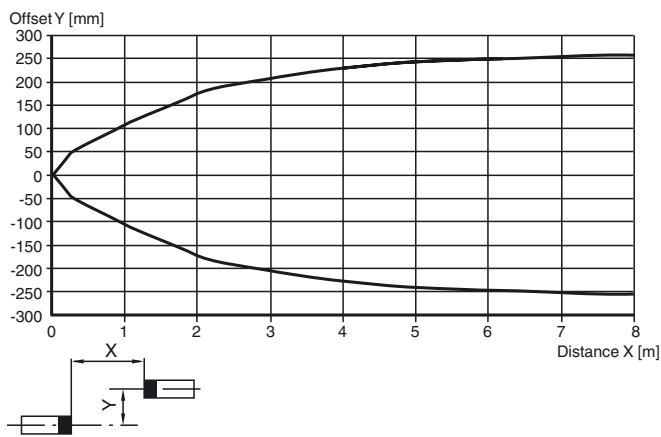
V3-WM-2M-PUR

Female cordset single-ended, M8, 3-pin, PUR cable

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

Curves/Diagrams

Characteristic response curve



Relative received light strength

