



Model Number

ML300-P-12m-IR/76b/115/127

Thru-beam sensor
with 2 m fixed cable

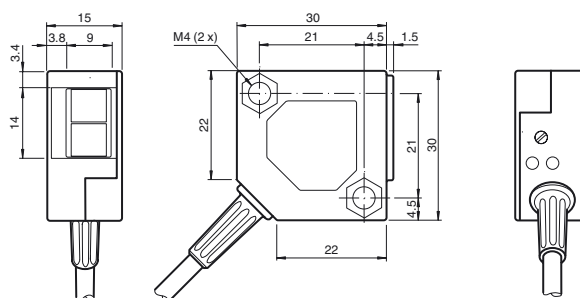
Features

- Miniature design
- Easy to use
- Infrared light
- High operating range
- 45° cable connector

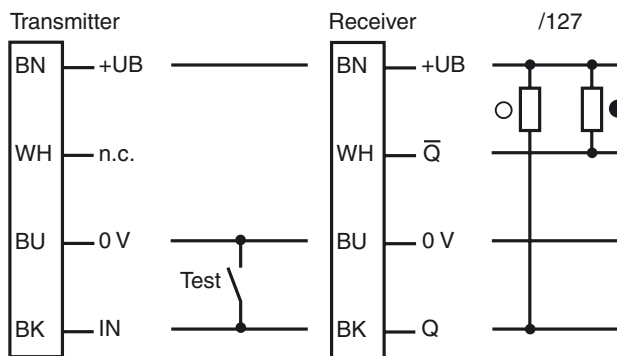
Product information

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



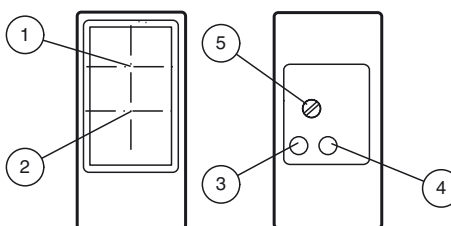
Electrical connection



○ = Light on

● = Dark on

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-12m-IR/76b/115
Receiver	ML300-R-12m-IR/25/115/127

General specifications

Effective detection range	0 ... 12 m
Threshold detection range	14 m
Light source	IREd
Light type	modulated infrared light 880 nm
Diameter of the light spot	approx. 4 m at 12 m
Angle of divergence	approx. 7 °
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. 20 %
No-load supply current	I_0	Emitter: ≤ 15 mA Receiver: ≤ 10 mA

Input

Test input	emitter: 1 test input, not activated: < 4 V, activated: > 8 V or open
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Output

Switching type	light on / dark on	
Signal output	2 NPN outputs, complementary, short-circuit proof, reverse-polarity protection, 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	IP67
Connection	2 m fixed cable
Material	
Housing	PBT
Optical face	glass pane
Cable	PVC
Mass	150 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

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

OMH-ML300-01

Bracket for mounting ML300 series sensors

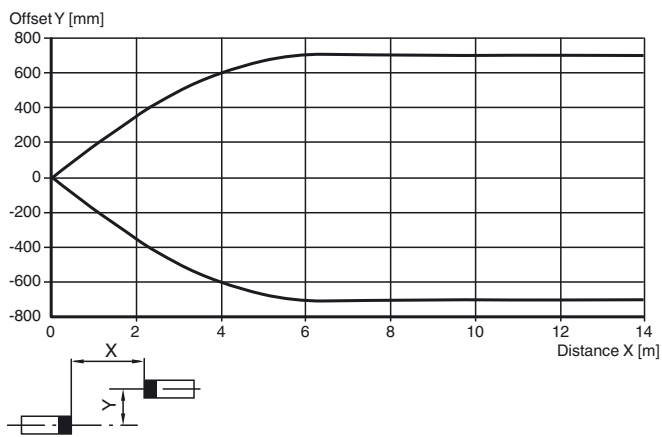
OMH-ML300-02

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

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

Curves/Diagrams

Characteristic response curve



Relative received light strength

