



Model Number

ML300-8-600-RT/59/98/102

Diffuse mode sensor
with 3-pin, M8 x 1 connector

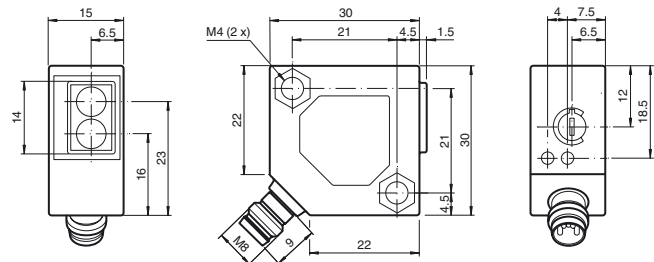
Features

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

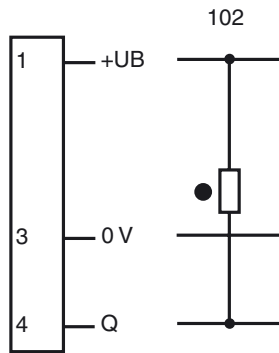
Product information

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

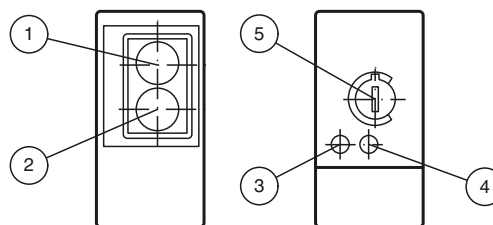
Pinout



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
4	Stability control	green
5	Sensing range adjuster	

Release date: 2019-11-26 15:43 Date of issue: 2019-11-26 238182_eng.xml

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

Technical data**General specifications**

Detection range	0 ... 600 mm , adjustable
Adjustment range	150 ... 600 mm
Reference target	standard white 200 mm x 200 mm
Light source	LED
Light type	modulated visible red light , 660 nm
Diameter of the light spot	approx. 130 mm at a distance of 600 mm
Angle of divergence	approx. 13 °
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	Sensing range adjuster

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I_0	max. 30 mA

Output

Switching type	dark on	
Signal output	1 NPN 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

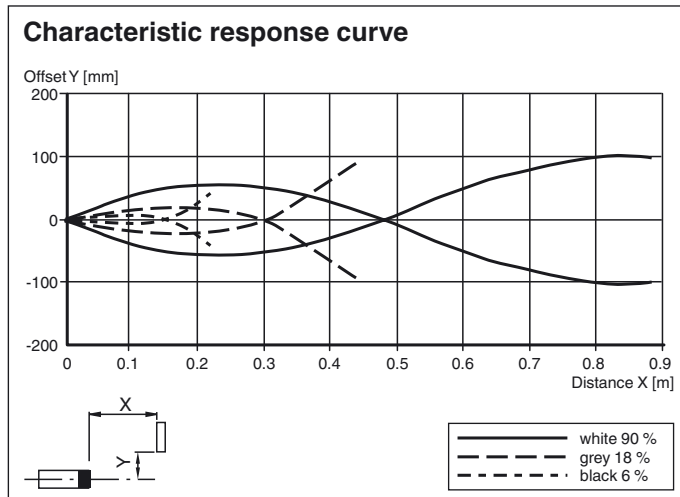
Housing width	30 mm
Housing height	30 mm
Housing depth	15 mm
Degree of protection	IP65
Connection	M8 x 1 connector, 3-pin
Material	
Housing	ABS
Optical face	plastic
Connector	metal
Mass	18 g

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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Curves/Diagrams**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

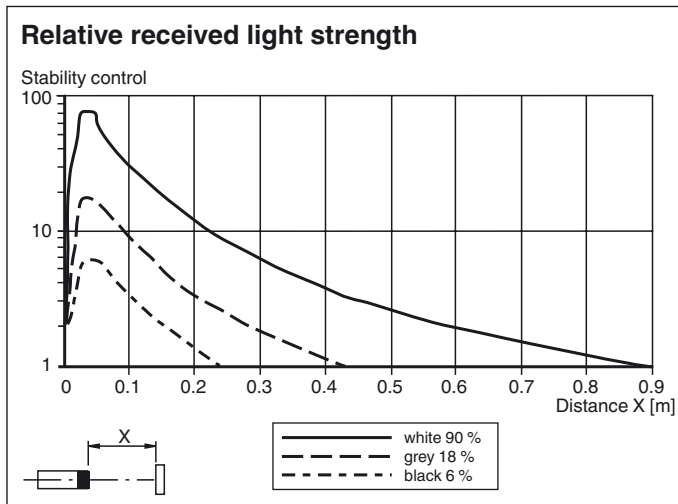
V3-WM-2M-PVC

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



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