



Model Number

ML300-8-1200-IR/25/82d/95/103

Diffuse mode sensor
with M8, 4-pin metal connector

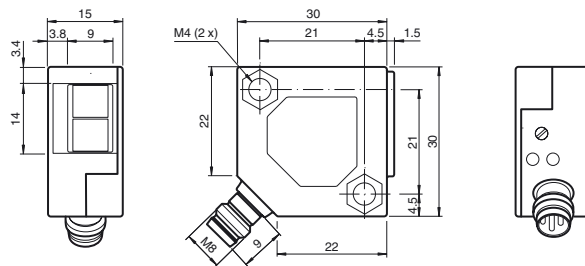
Features

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

Product information

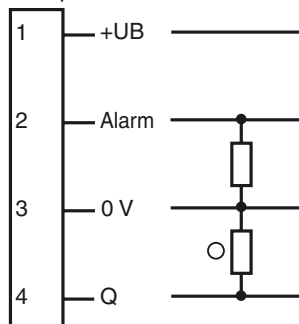
The ML300 series has a robust miniature housing and all the standard functional principles. Of particular note are the sensors with analog output, which return a value proportional to the distance. The 45° plug/cable connection ensures flexible mounting. An LED indicates a weak signal, e.g. due to dirt.

Dimensions



Electrical connection

Option:



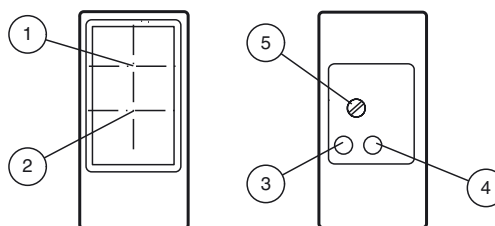
○ = Light on

● = Dark on

Pinout



Indicators/operating means



1	Receiver	
2	Emitter	
3	Switching state	yellow
4	Stability control	green
5	Sensing range adjuster	

Technical data**General specifications**

Detection range	0 ... 1200 mm , adjustable
Adjustment range	250 ... 1200 mm
Reference target	standard white 200 mm x 200 mm
Light source	IREd
Light type	modulated infrared light , 880 nm
Diameter of the light spot	approx. 160 mm at a distance of 1200 mm
Angle of divergence	approx. 8 °
Ambient light limit	
Continuous light	10000 Lux
Modulated light	5000 Lux
Accessories provided	Mounting bracket OMH-ML300-01 Screwdriver

Indicators/operating means

Function indicator	LED yellow: lights up when output is active LEDgreen: Sufficient stability control
Control elements	Detection range adjuster

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		max. 20 %
No-load supply current	I ₀	max. 20 mA

Output

Pre-fault indication output		1 PNP, inactive when falling short of the stability control , open collector , short-circuit protected, reverse polarity protected , 100 mA max
Switching type		light on / dark 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

Ambient conditions

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

Protection degree	IP67
Connection	M8 x 1 connector, 4-pin
Material	
Housing	PBT
Optical face	glass pane
Connector	metal
Mass	18 g

Compliance with standards and directives

Directive conformity	
EMC Directive 2004/108/EC	EN 60947-5-2:2007
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007
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

V31-GM-2M-PVC

Female cordset, M8, 4-pin, PVC cable

V31-WM-2M-PVC

Female cordset, M8, 4-pin, PVC cable

V31-WM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

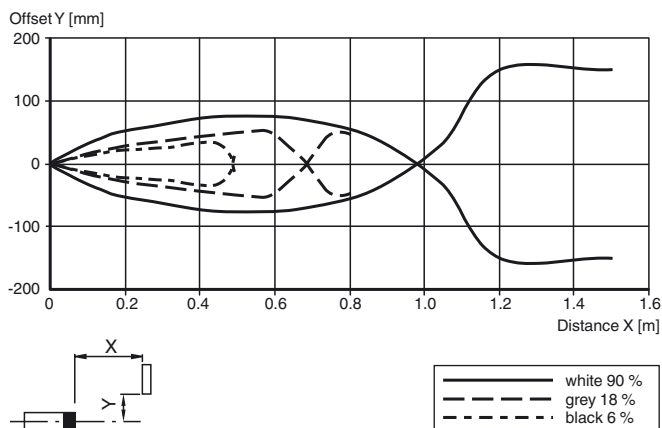
V31-GM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

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

Curves/Diagrams

Characteristic response curve



Relative received light strength

