

Model Number

ML300-8-1200-IR/25/95/120

Diffuse mode sensor

with M8, 4-pin metal connector

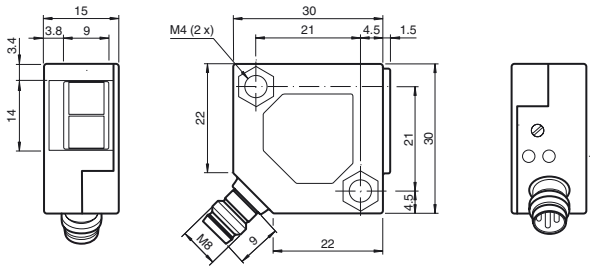
Features

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

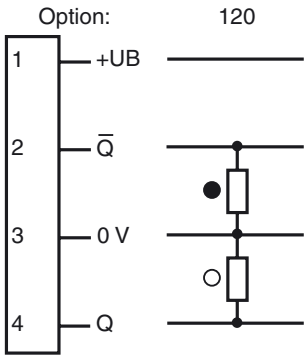
Product information

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

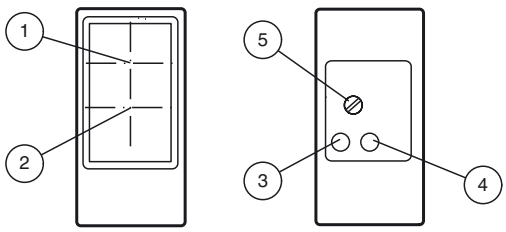


○ = Light on
● = Dark on

Pinout



Indicators/operating means



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

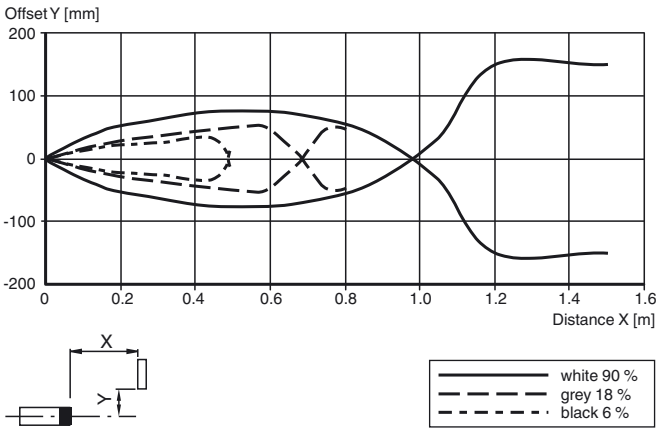
Release date: 2013-12-05 14:51 Date of issue: 2013-12-05 238221_eng.xml

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		
Switching type		light on / dark on
Signal output		2 PNP outputs, complementary, 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)
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

Curves/Diagrams

Characteristic response curve



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

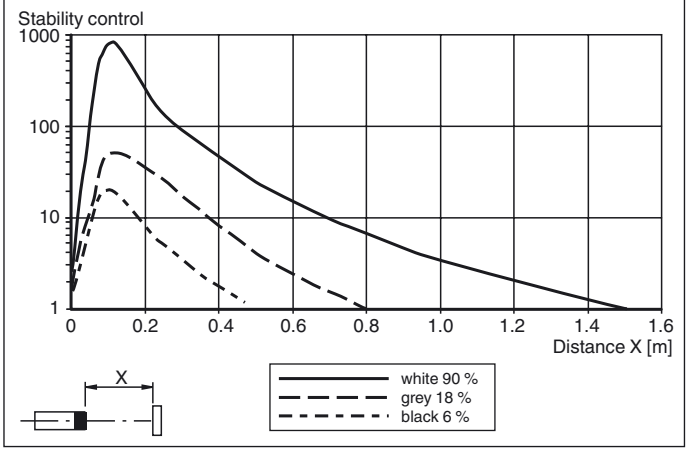
V31-WM-2M-PUR
Female cordset, M8, 4-pin, PUR cable

V31-GM-2M-PUR
Female cordset, M8, 4-pin, PUR cable

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

Release date: 2013-12-05 14:51 Date of issue: 2013-12-05 238221_eng.xml

Relative received light strength



Release date: 2013-12-05 14:51 Date of issue: 2013-12-05 238221_eng.xml