



Background suppression sensor ML300-8-H-200-RT/25/98/103



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

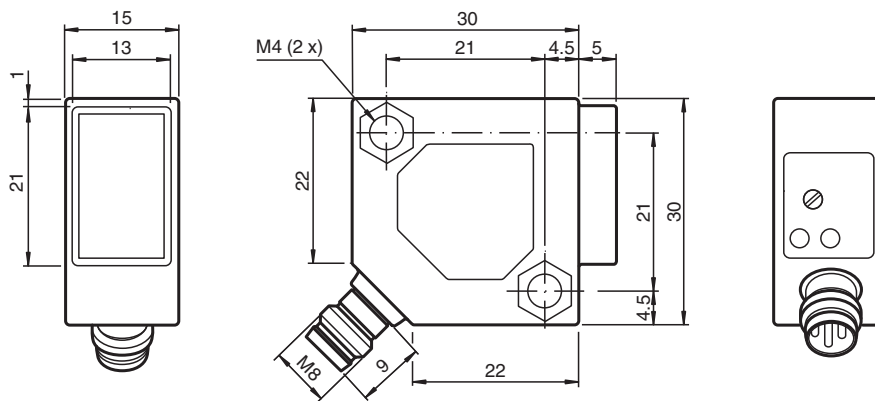
Background suppression sensor



Function

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



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

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PEPPERL+FUCHS

Technical Data

General specifications

Detection range	0 ... 200 mm , adjustable
Detection range min.	5 ... 25 mm
Detection range max.	0 ... 200 mm
Adjustment range	25 ... 200 mm
Reference target	standard white, 100 mm x 100 mm
Light source	LED
Light type	modulated visible red light , 660 nm
Black-white difference (6 %/90 %)	15 % at 200 mm
Diameter of the light spot	approx. 12 mm at a distance of 200 mm
Opening angle	approx. 3.5 °
Ambient light limit	
Continuous light	10000 Lux
Modulated light	5000 Lux
Accessories provided	Mounting bracket OMH-ML300-01

Indicators/operating means

Function indicator	LED yellow: lights up when output is active LED green: lights up with a stable object recognition
Control elements	Sensing range adjuster

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		max. 20 %
No-load supply current	I_0	max. 25 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	

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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Ambient conditions

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

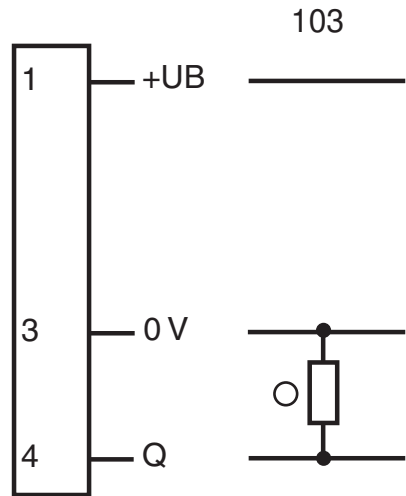
Housing width	30 mm
Housing height	30 mm
Housing depth	15 mm
Degree of protection	IP67
Connection	M8 x 1 connector, 3-pin
Material	
Housing	PBT
Optical face	glass pane
Connector	metal

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Mass	18 g
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Connection Assignment



○ = Light on
● = Dark on

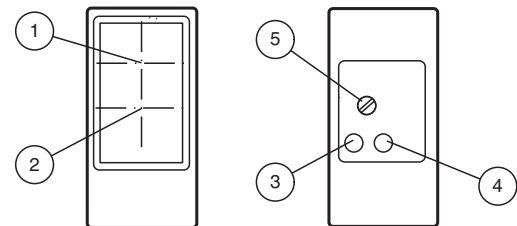
Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

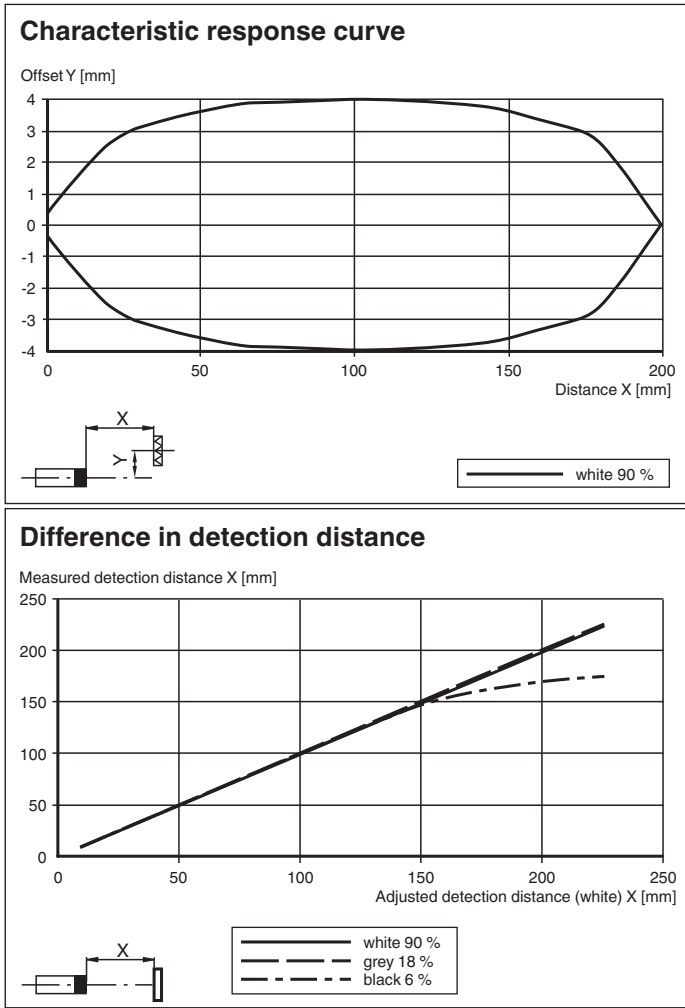
Assembly



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

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Characteristic Curve



Accessories

	OMH-ML300-01	Bracket for mounting ML300 series sensors
	V3-GM-2M-PVC	Female cordset single-ended M8 straight A-coded, 3-pin, PVC cable grey
	V3-WM-2M-PVC	Female cordset single-ended M8 angled A-coded, 3-pin, PVC cable grey
	V3-WM-2M-PUR	Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey

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