



**Model Number**

**ML300-8-H-200-RT/59/98/103**

Background suppression sensor with M8, 3-pin metal connector

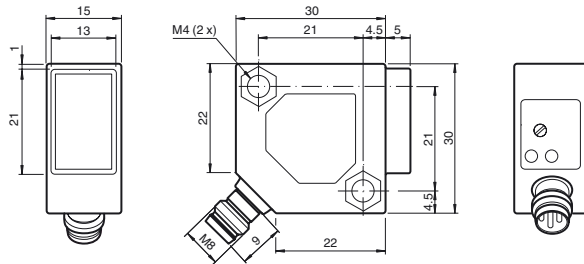
**Features**

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

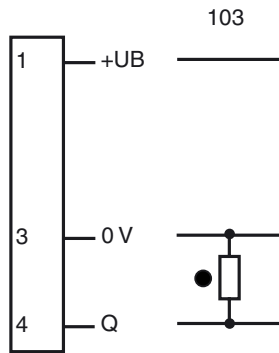
**Product information**

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

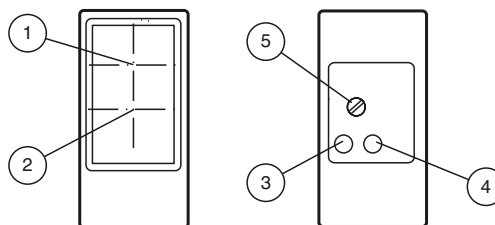
**Pinout**



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	

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**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
Angle of divergence	approx. 3.5 °
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 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	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	$U_d$	$\leq 2$ 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**

Degree of protection	IP67
Connection	M8 x 1 connector, 3-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 $\leq 36$ 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

**V3-GM-2M-PVC**

Female cordset, M8, 3-pin, PVC cable

**V3-WM-2M-PVC**

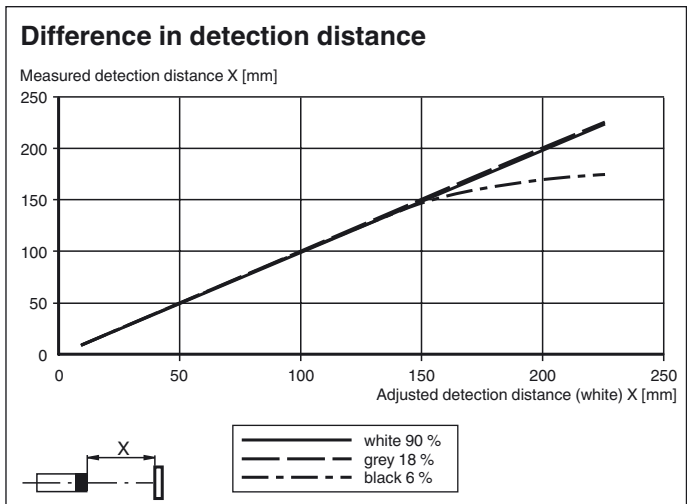
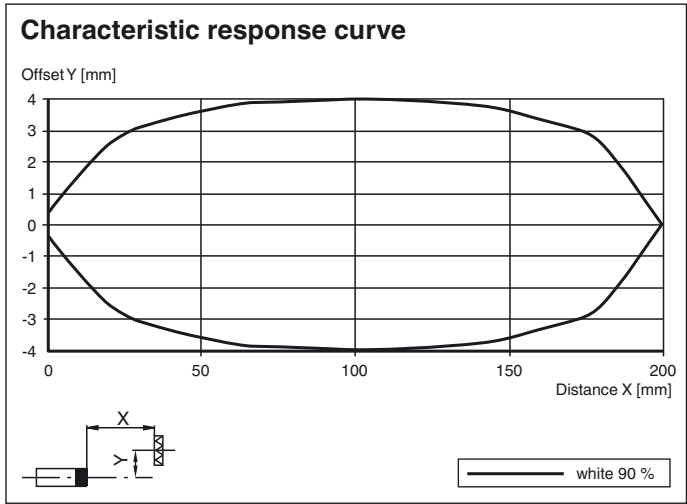
Female cordset, M8, 3-pin, PVC cable

**V3-WM-2M-PUR**

Cable socket, M8, 3-pin, PUR cable

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

**Curves/Diagrams**



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

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