



**Model Number**

**ML300-P-6m-RT/59/98/102**

Thru-beam sensor  
with 3-pin, M8 x 1 connector

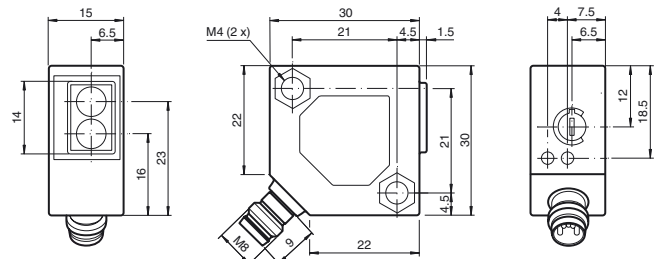
**Features**

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

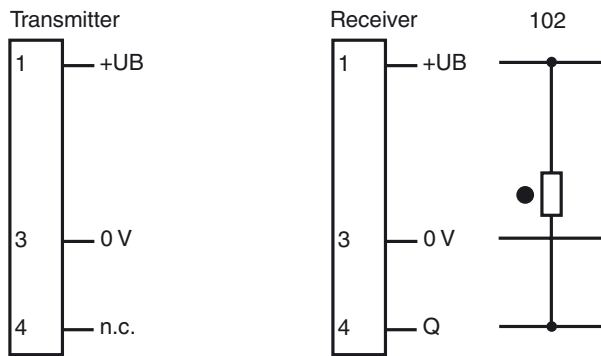
**Product information**

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

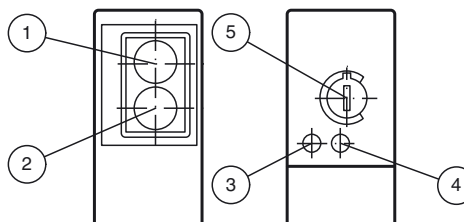
**Pinout**



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	only Receiver
4	Stability control	green	only Receiver
5	Sensitivity adjustment		only Receiver

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

**Technical data****System components**

Emitter	ML300-T-6m-RT/98
Receiver	ML300-R-6m-RT/59/98/102

**General specifications**

Effective detection range	0 ... 6 m
Threshold detection range	8 m
Light source	LED
Light type	modulated visible red light 660 nm
Diameter of the light spot	approx. 500 mm at 6 m
Angle of divergence	approx. 5 °

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	sensitivity adjustment

**Electrical specifications**

Operating voltage	$U_B$	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	$I_0$	Emitter: ≤ 20 mA Receiver: ≤ 15 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	35 g (emitter and receiver)

**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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**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**

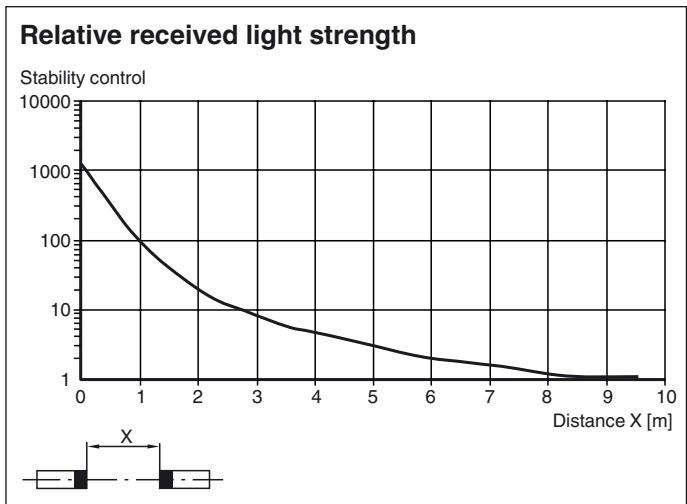
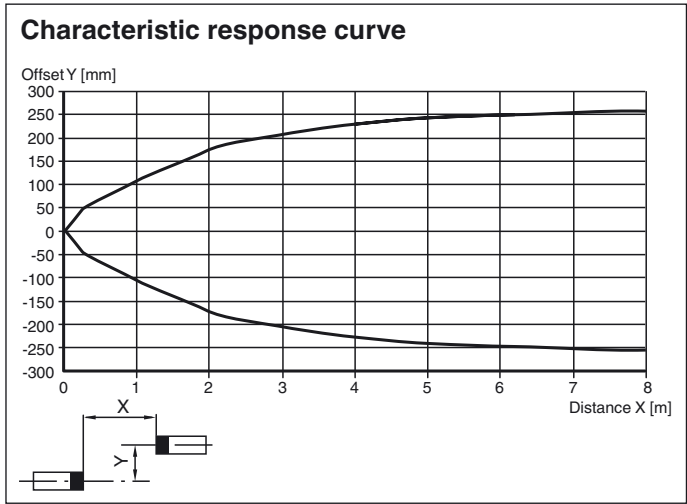
Female cordset single-ended, M8, 3-pin, PVC cable

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

Female cordset single-ended, M8, 3-pin, PUR cable

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

**Curves/Diagrams**



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