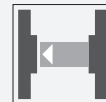




Thru-beam sensor ML300-P-6m-RT/25/98/103



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

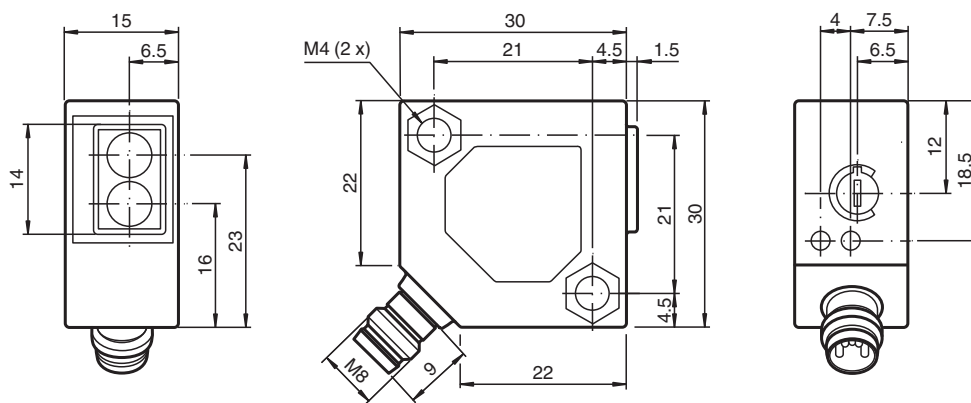
Thru-beam sensor for basic applications, miniature design, 6 m detection range, red light, light on, PNP output, M8 plug



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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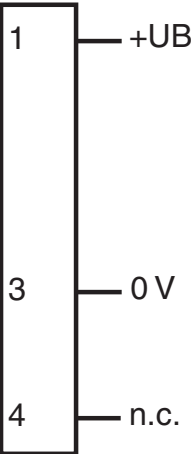
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Technical Data

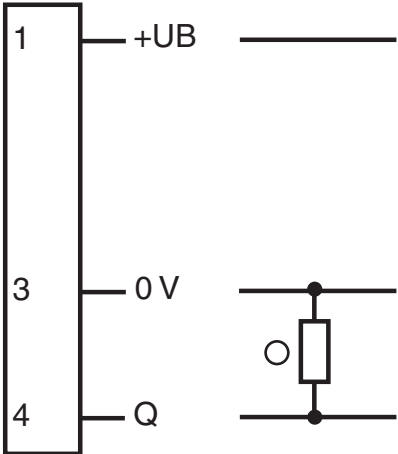
System components			
Emitter		ML300-T-6m-RT/98	
Receiver		ML300-R-6m-RT/25/98/103	
General specifications			
Effective detection range		0 ... 6 m	
Threshold detection range		8 m	
Light source		LED	
Light type		modulated visible red light 660 nm	
Diameter of the light spot		approx. 500 mm at 6 m	
Opening angle		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: ≤ 20 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	
Conformity			
Product standard		EN 60947-5-2	
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	
Ambient conditions			
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)	
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)	

Connection Assignment

Transmitter



Receiver



103

○ = Light on
● = Dark on

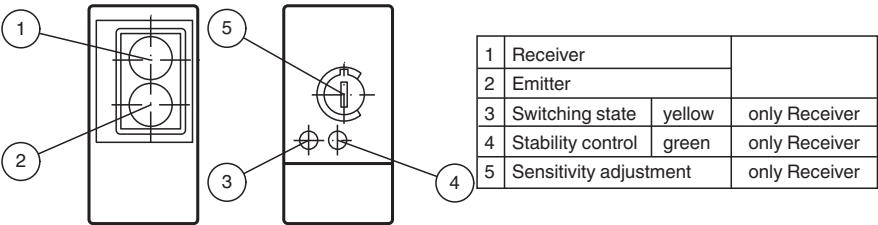
Connection Assignment



Wire colors in accordance with EN 60947-5-2

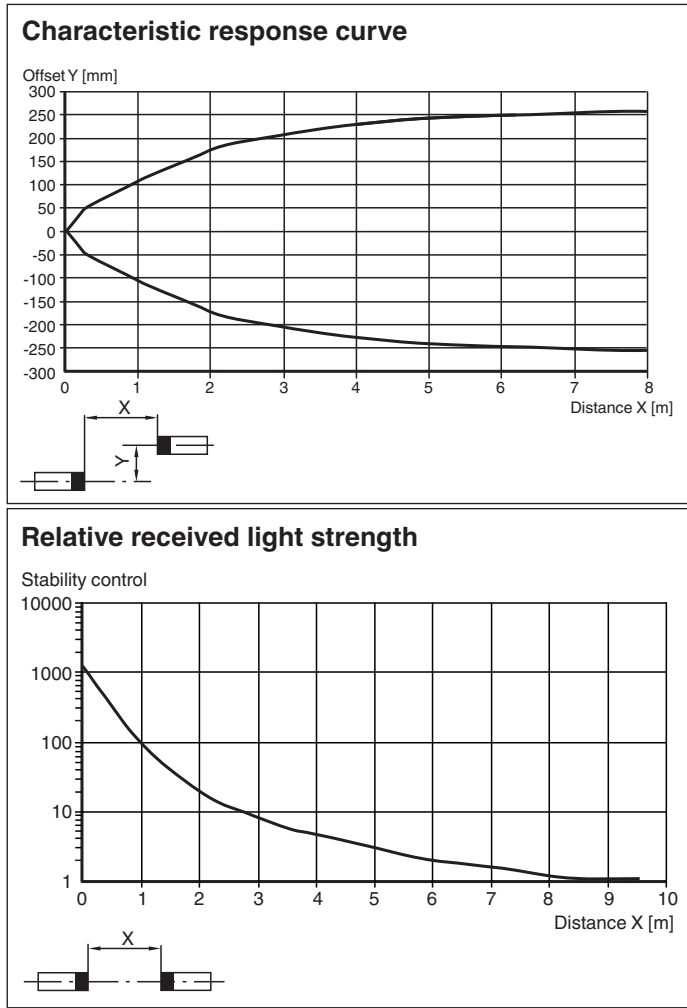
1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Assembly



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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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