

Thru-beam sensor

ML300-P-6m-RT/59/102/115



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

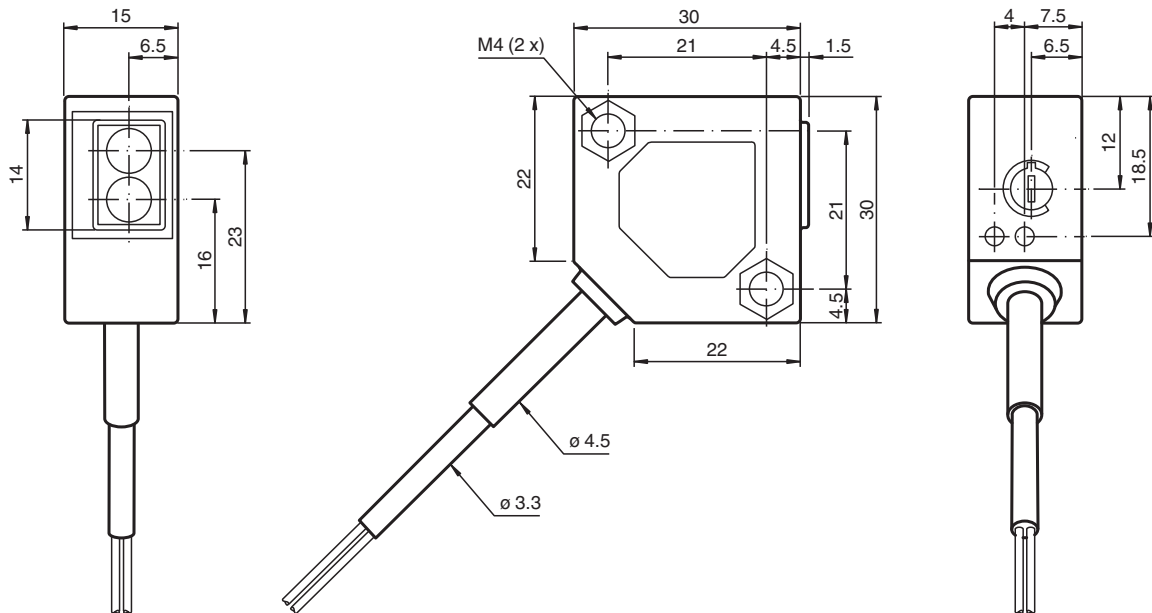
Thru-beam sensor



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



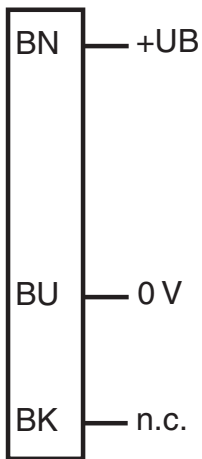
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Technical Data

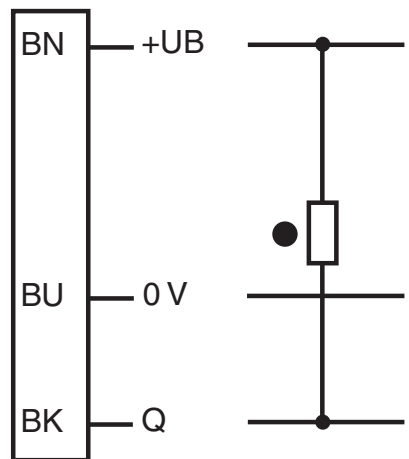
System components		
Emitter		ML300-T-6m-RT/115
Receiver		ML300-R-6m-RT/59/102/115
General specifications		
Effective detection range		0 ... 6 m
Threshold detection range		8 m
Light source		LED
Light type		modulated visible red light 660 nm
Diameter of the light spot		approx. 500 mm at 6 m
Opening angle		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: ≤ 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
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		
UL approval		no
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		2 m fixed cable
Material		
Housing		ABS
Optical face		plastic
Cable		PVC
Mass		150 g (emitter and receiver)

Connection Assignment

Transmitter



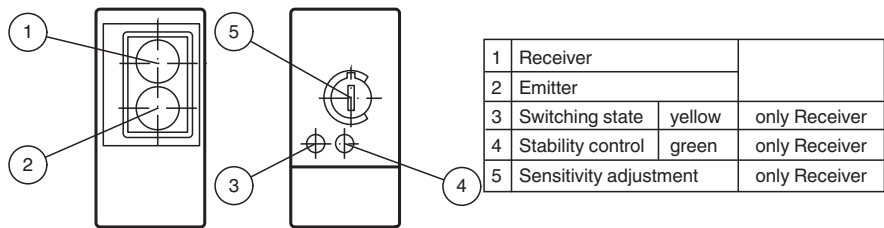
Receiver



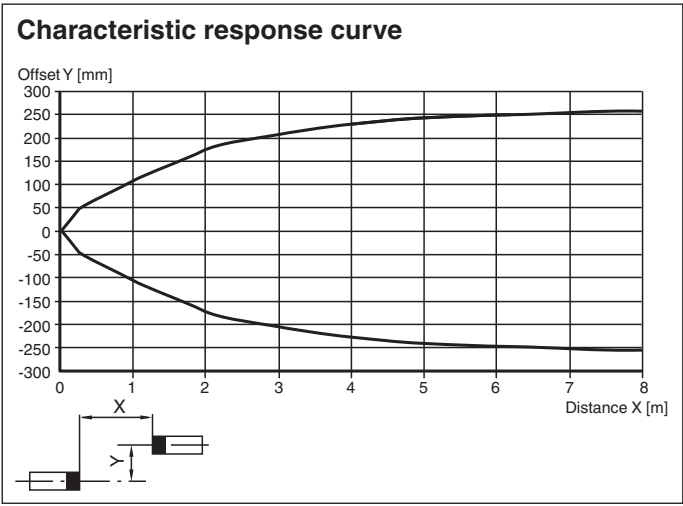
102

○ = Light on
● = Dark on

Assembly

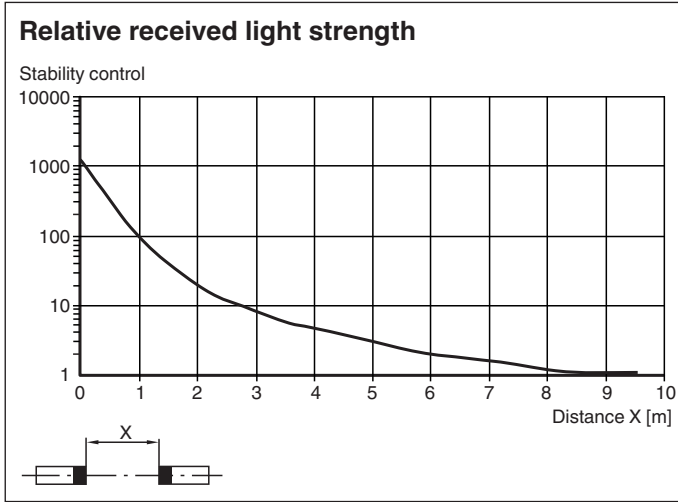


Characteristic Curve



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Characteristic Curve



Accessories

	<p>OMH-ML300-01</p>	<p>Bracket for mounting ML300 series sensors</p>
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