

Background suppression sensor ML300-8-H-200-RT/25/115/127



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

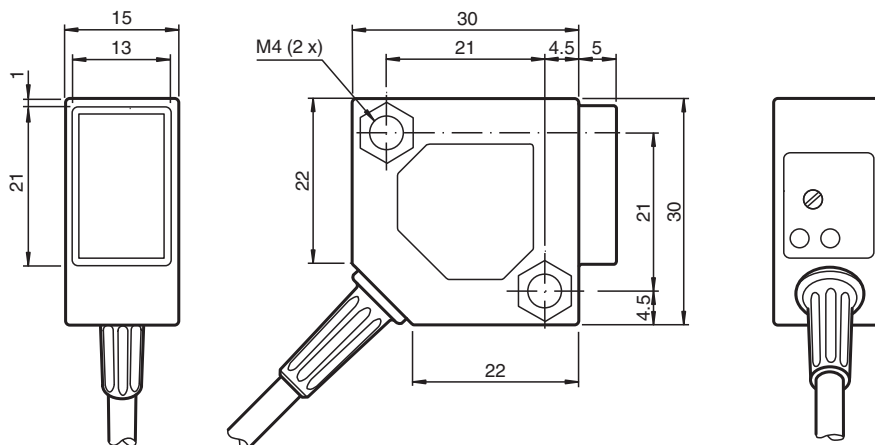
Triangulation sensor with background suppression



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



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 when object is detected
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 / dark on
Signal output		2 NPN outputs, complementary, short-circuit proof, reverse-polarity protection, open collector
Switching voltage		max. 30 V DC
Switching current		max. 0.1 A
Voltage drop	U _d	≤ 2 V DC
Switching frequency	f	500 Hz
Response time		1 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

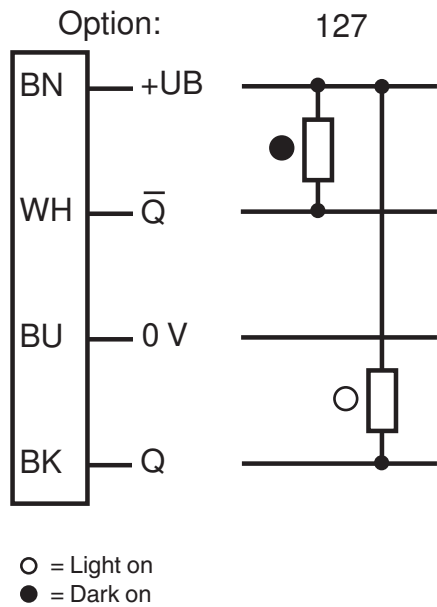
Housing width	30 mm
Housing height	30 mm
Housing depth	15 mm
Degree of protection	IP67
Connection	2 m fixed cable
Material	
Housing	PBT
Optical face	glass pane

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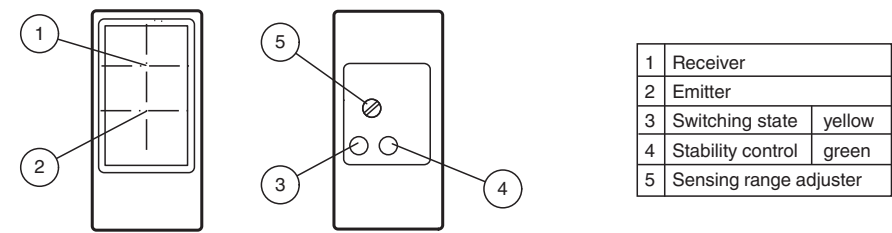
Technical Data

Cable	PVC
Mass	75 g

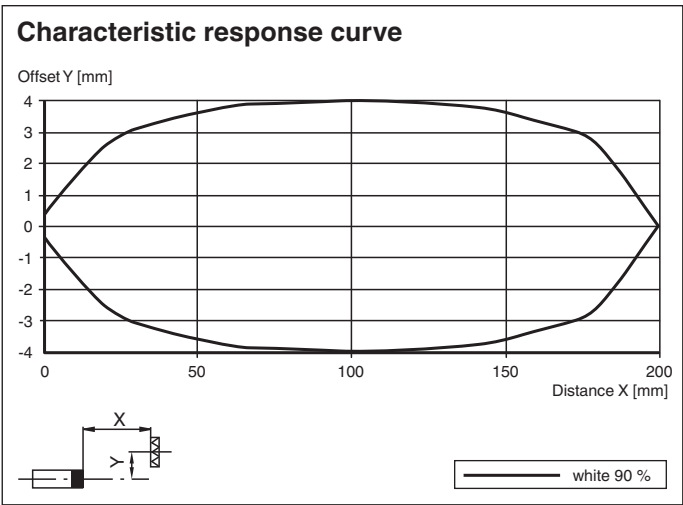
Connection Assignment



Assembly

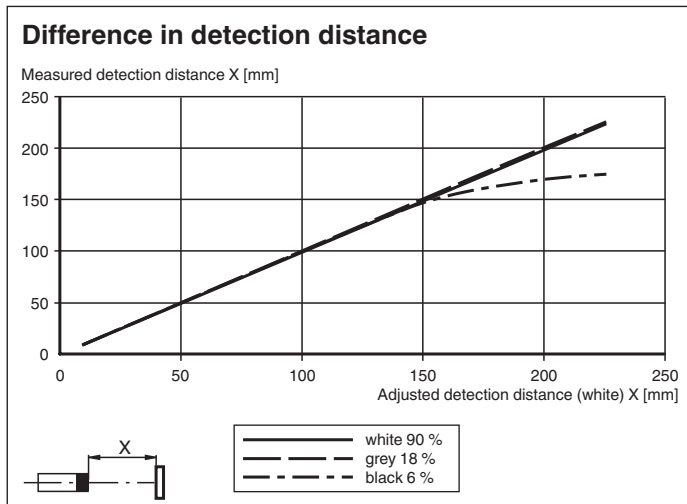


Characteristic Curve



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Characteristic Curve



Accessories

	OMH-ML300-01	Bracket for mounting ML300 series sensors
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