



Diffuse mode sensor ML300-8-1200-IR/25/95/120



- Miniature design
- Easy to use
- Infrared light
- High operating range
- 45° connector

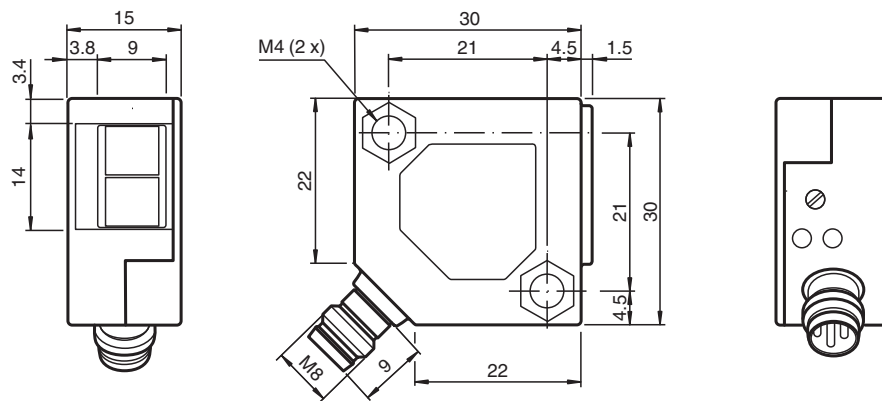
Diffuse mode sensor



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



Technical Data

General specifications

Detection range	0 ... 1200 mm , adjustable
Adjustment range	250 ... 1200 mm
Reference target	standard white 200 mm x 200 mm
Light source	IREC
Light type	modulated infrared light , 880 nm
Diameter of the light spot	approx. 160 mm at a distance of 1200 mm
Opening angle	approx. 8 °
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: Sufficient stability control
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. 20 mA

Output

Switching type		light on / dark on
Signal output		2 PNP outputs, complementary, 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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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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Ambient conditions

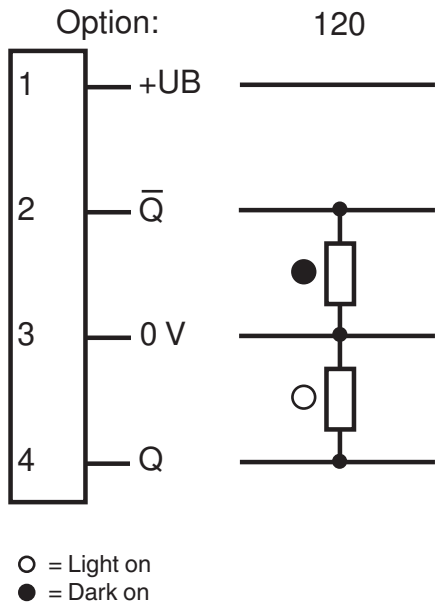
Ambient temperature		-25 ... 55 °C (-13 ... 131 °F)
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Mechanical specifications

Housing width		30 mm
Housing height		30 mm
Housing depth		15 mm
Degree of protection		IP67
Connection		M8 x 1 connector, 4-pin
Material		
Housing		PBT
Optical face		glass pane
Connector		metal
Mass		18 g

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Connection Assignment



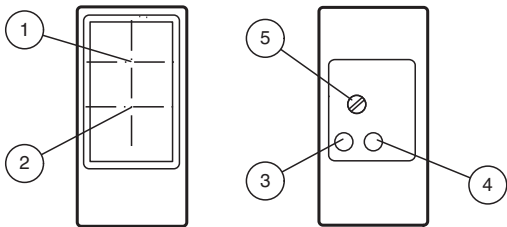
Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

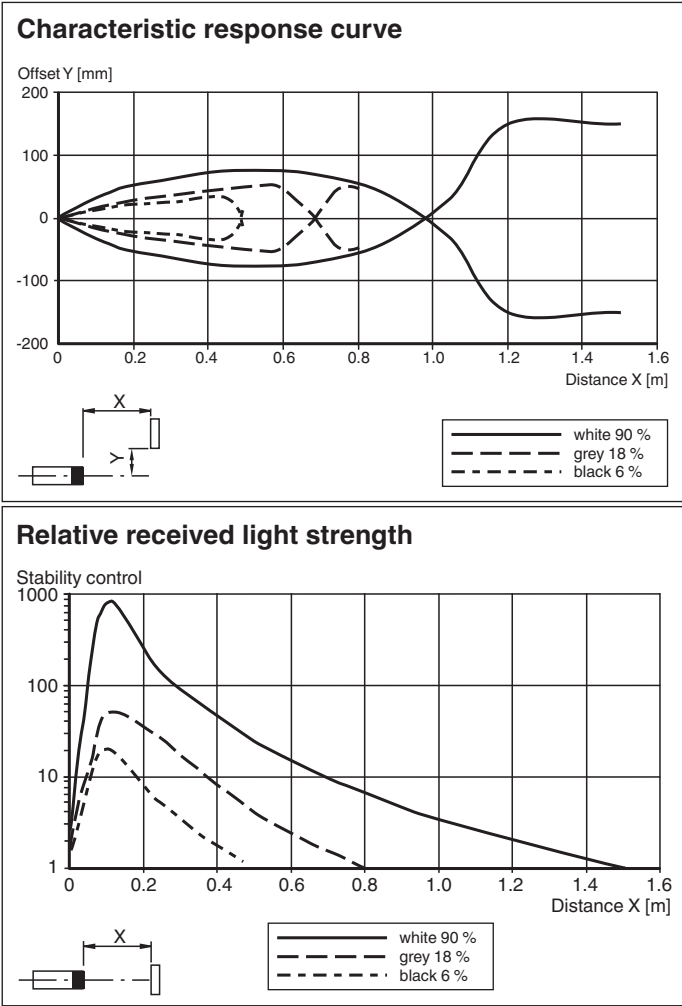
Assembly



1	Receiver	
2	Emitter	
3	Switching state	yellow
4	Stability control	green
5	Sensing range adjuster	

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Characteristic Curve



Accessories

	OMH-ML300-01	Bracket for mounting ML300 series sensors
	V31-GM-2M-PVC	Female cordset single-ended M8 straight A-coded, 4-pin, PVC cable grey
	V31-WM-2M-PVC	Female cordset single-ended M8 angled A-coded, 4-pin, PVC cable grey
	V31-WM-2M-PUR	Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable grey
	V31-GM-2M-PUR	Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable grey

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