Diffuse mode sensor

MLV13-8-LAS-120/32/40b/73c

with 4-pin, M12 connector

Laser Class II

- **Laser class 2, eyesafe**
- **Pre-fault indication**
- **Control input for light-/dark switching**
- **Protection degree IP67**

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General specifications

Detection range		0 ... 120 mm , adjustable
Light source		laser diode Red light 670 nm
Approvals		CE
Laser class		2
Reference target		standard white 10 mm x 10 mm
Light type		red, modulated light
Ambient light limit		10000 Lux , 7500 Lux halogen light
Hysteresis	H	< 15 %

Indicators/operating means

Function display	switching state: LED yellow pre-fault indicator: LED red
Operating elements	sensitivity adjuster

Electrical specifications

Operating voltage	10 ... 30 V DC
Ripple	10 %
No-load supply current I_0	≤ 16 mA
Time delay before availability t_v	≤ 30 ms

Input

Control input	Light ON: +UB Dark ON: 0 V

Output

Switching type		light/dark switching
Signal output		1 PNP output, short-circuit proof, protected from reverse polarity, open collector
Switching voltage		max. 30 V DC
Switching current		max. 200 mA
Voltage drop	U_d	≤ 2.5 V DC
Switching frequency	f	≤ 500 Hz
Response time		≤ 1 ms

Standard conformity

Standards	EN 60947-5-2

Ambient conditions

Ambient temperature	-10 ... 45 °C (263 ... 318 K)
Storage temperature	-40 ... 70 °C (233 ... 343 K)

Mechanical specifications

Protection degree	IP67
Connection	M12 connector, 4-pin
Material	
Housing	ABS
Optical face	scratch resistant plastic pane
Mass	40 g

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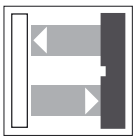

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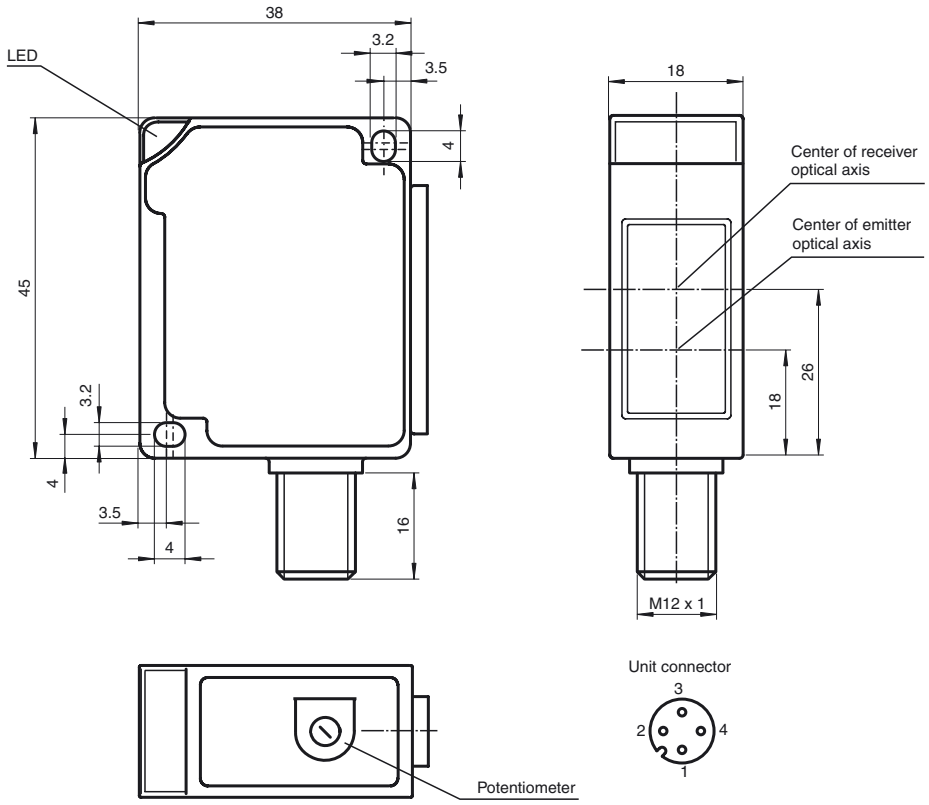
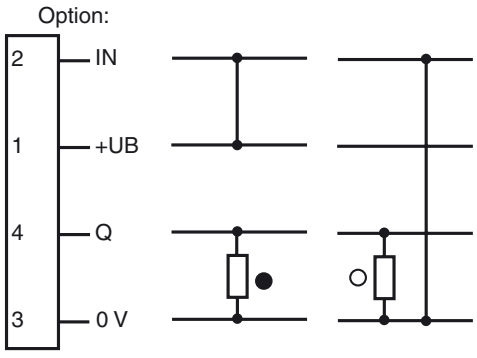
Dimensions



Electrical connection



❍ = light on, ● = dark on

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Additional Information

Conventional use:

The reflex light scanner contains the emitter and receiver in a single housing. The light from transmitter is beamed back from the recorded object is evaluated by the receiver. The detection range depend on the object colour. With dark or very small objects the detection range reduces.

Mounting instructions:

The sensor can be fastened over the through-holes directly or with the included mounting bracket.
The base surface must be flat to avoid distorting the housing during mounting. It is advisable to secure the bolts and screws with washers so that the sensor does not become misaligned.

Instructions for adjustment:

Adjust the sensor on the background. If the yellow LED illuminates, the detection range needs to be reduced with the detection range adjuster, until the yellow LED goes off.

Object detection check:

Position the object into the light beam. Position light spot on object. If the object is detected, the yellow LED illuminated. If it does not light up, further to adjust the detection range with the potentiometer, until the yellow LED lights up.
The red LED flashes if reception deteriorates (e.g. soiled lenses or by maladjustment) and when falling short of the stability control.

Iustration:

We recommend that you clean the optical interfaces and check the plug-in connections and screw connections at regular intervals.

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