



Model Number

ML100-8-H-350-RT/102/115

Diffuse mode sensor with adjustable background suppression
with 2 m fixed cable

Features

- Miniature design
- Easy to use
- Very bright, well visible light spot
- Full metal thread mounting
- Highly visible LEDs for Power ON and switching state
- Not sensitive to ambient light

Description

The ML100 series is characterized by its miniature housing with integral, all-metal threaded bushings. All versions are equipped with a visible red transmitter LED. This greatly simplifies installation and commissioning. The switching states are easily visible from all directions thanks to the highly visible LEDs.

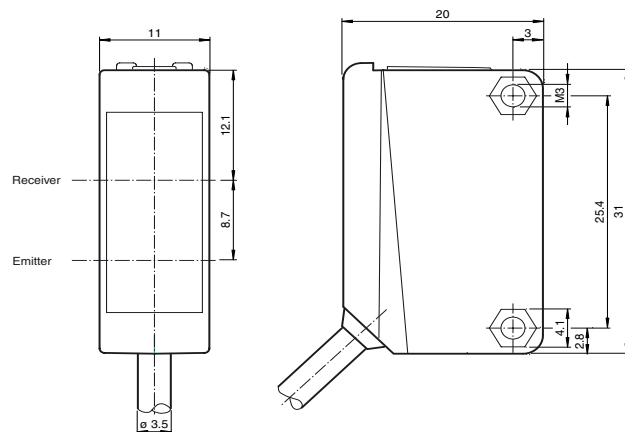
Accessories

OMH-10

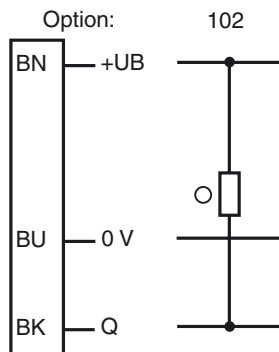
Mounting aid

Additional accessories can be found in the Internet.

Dimensions

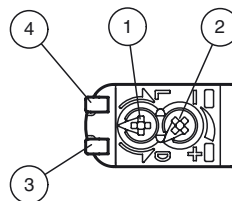


Electrical connection



○ = Light on
● = Dark on

Indicators/operating means



1	Light-Dark-switching	
2	Sensitivity adjuster	
3	Signal display	yellow
4	Operating display	green

Technical data**General specifications**

Detection range	5 ... 350 mm
Detection range min.	5 ... 30 mm
Detection range max.	5 ... 350 mm
Adjustment range	30 ... 350 mm
Reference target	standard white, 100 mm x 100 mm
Light source	LED
Light type	modulated visible red light
Black/White difference (6 %/90 %)	< 18 % at 350 mm
Approvals	CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure)
Diameter of the light spot	approx. 20 mm at a distance of 350 mm
Angle of divergence	approx. 4 °
Optical face	frontal
Ambient light limit	EN 60947-5-2

Functional safety related parameters

MTTF _d	860 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operating display	LED green: power on
Function display	LED yellow: lights when object is detected
Controls	sensing range adjuster
Controls	Light/dark switch

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I ₀	< 20 mA

Output

Switching type	light/dark on, switchable	
Signal output	1 NPN output, short-circuit proof, protected from reverse polarity, open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA , resistive load	
Voltage drop	U _d	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time	1 ms	

Ambient conditions

Ambient temperature	-30 ... 60 °C (-22 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

Mechanical specifications

Protection degree	IP67
Connection	2 m fixed cable
Material	
Housing	PC (Polycarbonate)
Optical face	PMMA
Mass	approx. 50 g

Compliance with standards and directives

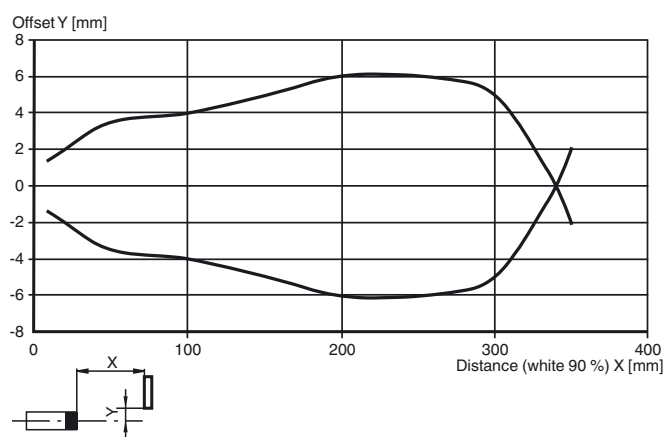
Directive conformity	
EMC Directive 2004/108/EC	EN 60947-5-2
Standard conformity	
Standards	UL 508

Approvals and certificates

UL approval	cULus Listed, Class 2 Power Source, Type 1 enclosure
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Curves / Diagrams

Characteristic response curve



Curves/Diagrams

Difference in detection distance

