



**Model Number**

**ML100-8-H-350-RT/95/103**

Diffuse mode sensor with adjustable background suppression with 4-pin M8 connector

**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.

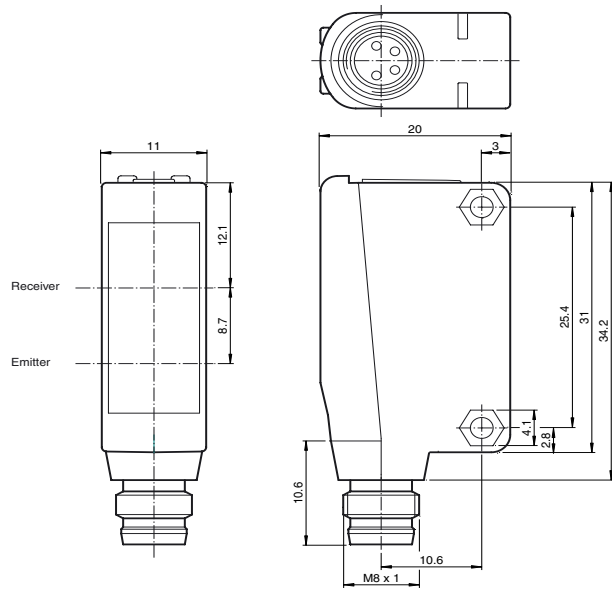
**Accessories**

**OMH-10**

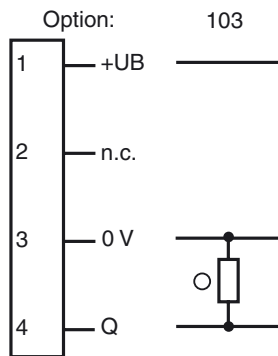
Mounting aid

Additional accessories can be found in the Internet.

**Dimensions**



**Electrical connection**

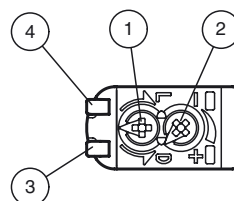


○ = Light on  
● = Dark on

**Pinout**



**Indicators/operating means**



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

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Subject to modifications without notice

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**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 <sub>d</sub>	860 a
Mission Time (T <sub>M</sub> )	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 <sub>B</sub>	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I <sub>0</sub>	< 20 mA

**Output**

Switching type	light/dark on, switchable	
Signal output	1 PNP 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 <sub>d</sub>	≤ 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	Connector M8 x 1 , 4-pin
Material	
Housing	PC (Polycarbonate)
Optical face	PMMA
Mass	approx. 10 g

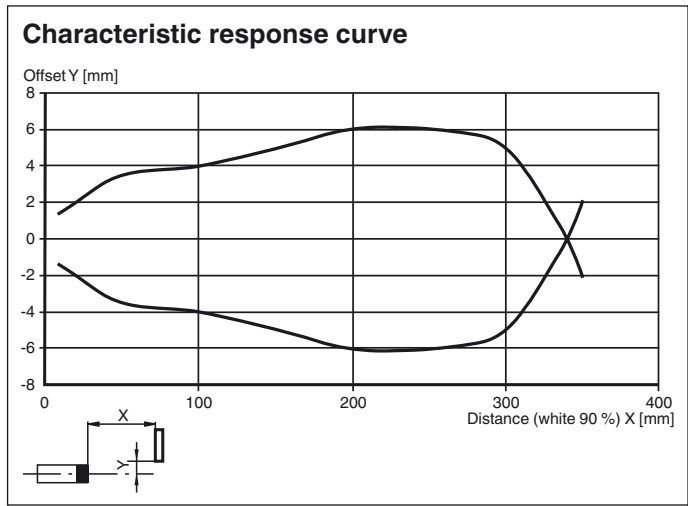
**Compliance with standards and directives**

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

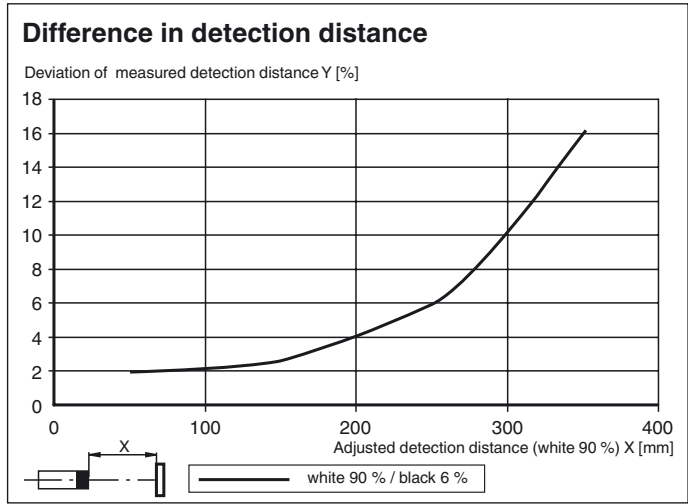
**Approvals and certificates**

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



Curves/Diagrams



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