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# **Model Number**

#### ML100-8-W-200-RT/95/102

Diffuse mode sensor with 4-pin, M8 x 1 connector

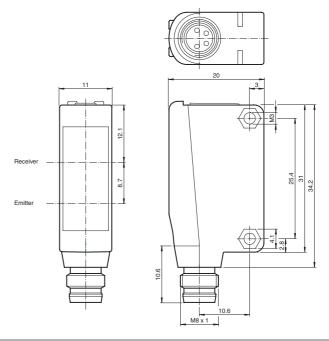
## **Features**

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

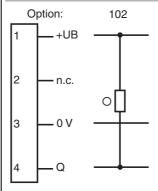
# **Product information**

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.

## **Dimensions**



# **Electrical connection**

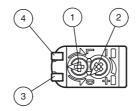


- O = Light on
- = Dark on

#### **Pinout**



# Indicators/operating means



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

To the first date		
Technical data		
General specifications		
Detection range		0 200 mm
Adjustment range		15 200 mm
Reference target		standard white, 200 mm x 200 mm
Light source		LED
Light type		modulated visible red light
Diameter of the light spot		approx. 170 mm at a distance of 200 mm
Optical face		frontal
Ambient light limit		EN 60947-5-2
Functional safety related param	eters	
MTTF <sub>d</sub>		860 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: power on
Function indicator		LED yellow, lights up with receiver lit
Control elements		sensitivity adjustment
Control elements		Light/Dark switch
Electrical specifications		
Operating voltage	$U_{B}$	10 30 V DC , class 2
Ripple	- 0	max. 10 %
No-load supply current	I <sub>O</sub>	<20 mA
Output	-0	
Switching type		light/dark on, switchable
Signal output		1 NPN output, short-circuit protected, reverse polarity protected
o.g. a. carpar		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	1000 Hz
Response time		0.5 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		Male connector M8 x 1 , 4-pin
Material		
Housing		PC (Polycarbonate)
Optical face		PMMA
Mass		approx. 10 g
Compliance with standards and	directi	
ves	uncon	
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
CCC approval		CCC approval / marking not required for products rated ≤36 V
Approvals		CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure)

## **Accessories**

## OMH-ML100-01

Mounting bracket

## OMH-ML100-03

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

#### OMH-ML100-04

Mounting bracket

#### OMH-ML100-05

Mounting bracket

## OMH-F10-ML100

Mounting aid for ML100 series

#### **OMH-10**

Mounting aid

#### OMH-ML100-S1

Mounting bracket

## V31-GM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

#### V31-WM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

Other suitable accessories can be found at www.pepperl-fuchs.com

**EPPERL+FUCHS** 

# **Curves/Diagrams**

