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Model Number

ML100-8-HW-5652

Background evaluation sensor with 4-pin, M8 x 1 connector

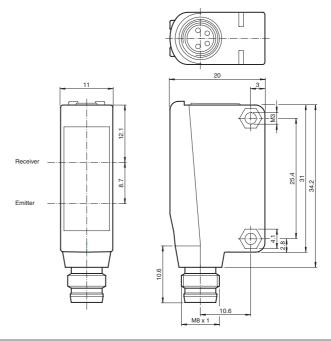
Features

- User-friendliest photoelectric sensor series for standard applications
- · Miniature design
- Background evaluation uses background as reference for detection of difficult targets
- Simplest alignment and commissioning thanks to ultrabright transmitter LED
- Clear and functional display concept for the operating modes
- · Full metal thread mounting

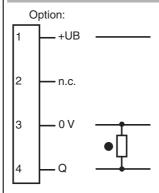
Product information

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

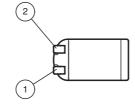


- O = Light on
- = Dark on

Pinout



Indicators/operating means



1	Signal display	yellow
2	Operating display	green

Technical data General specifications 0 ... 80 mm Detection range LED Light source modulated visible red light Light type CE, cULus Listed 57M3 (Only in association with UL Class 2 Approvals power supply; Type 1 enclosure) Diameter of the light spot approx. 10 mm at a distance of 80 mm Angle of divergence approx. 4 ° Optical face frontal EN 60947-5-2 Ambient light limit 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 ON: sensor detects background **Electrical specifications** 10 ... 30 V DC , class 2 Operating voltage Ripple max. 10 % No-load supply current < 20 mA Output Switching type Signal output 1 PNP output, short-circuit protected, reverse polarity protected, open collector Switching voltage max. 30 V DC Switching current max. 100 mA, resistive load ≤ 1.5 V DC Voltage drop 500 Hz Switching frequency Response time 1 ms **Ambient conditions**

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

Mechanical specifications

Protection degree IP67

Connection connector M8 x 1, 4-pin

Material

PC (Polycarbonate) Housing Optical face **PMMA**

Mass approx. 10 g

Compliance with standards and directi-

ves

Directive conformity

EMC Directive 2004/108/EC FN 60947-5-2

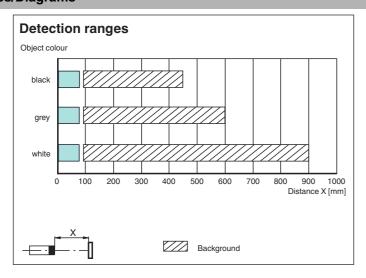
Standard conformity

Standards UL 508

Approvals and certificates

UL approval cULus Listed, Class 2 Power Source, Type 1 enclosure CCC approval Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Curves/Diagrams



Accessories

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

V31-GM-2M-PUR

4-pin, M8 socket, PUR cable

V31-WM-2M-PUR

4-pin, M8 socket, PUR cable

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

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Notes

- 1. Set up the sensor to the background object.
- 2. Rotate the detection range adjuster clockwise until the yellow LED turns ON.
- 3. Continue to rotate the detection range adjuster clockwise until the yellow LED turns OFF.
- 4. Now counter-clockwise rotate the detection range adjuster just until the yellow LED turns ON again.

Preferably the background should be light or white.

Object should move transversely to the sensor.

The background should not vary in height.

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