











# **Model Number**

## ML8-55/25/103/143

Retroreflective sensor with 4-pin, M8 x 1 connector

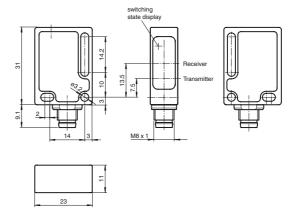
# **Features**

- Cost-optimized series for standard tasks
- · Miniature design
- Tamper-proof, no operating controls
- Yellow LED indicator behind the front panel
- Flexible use with versatile mounting opportunities

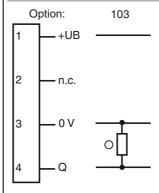
## **Product information**

Small, robust and reliable, the ML8 series of miniature sensors is particularly suitable for non-contact detection of objects in confined spaces. The LED indicator is located behind the lens and provides reliable information on the sensor's operating status. The LED is always visible, even if the sensor is completely embedded. Flexible mounting options and fixed preset detection ranges simplify setup and operation.

# **Dimensions**



# **Electrical connection**

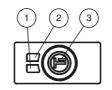


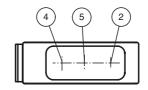
- O = Light on
- = Dark on

## **Pinout**



# Indicators/operating means





1	Operating display	green
2	Signal display	yellow
3	TEACH-IN button	
4	Emitter	
5	Receiver	

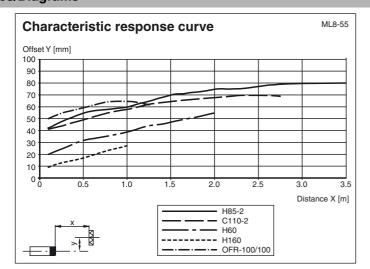
#### **Technical data** General specifications Effective detection range 0 ... 3 m 0.02 ... 3 m Reflector distance 3.5 m Threshold detection range H85-2 reflector Reference target LFD Light source Light type modulated visible red light Diameter of the light spot approx. 180 mm at a distance of 3.5 m Angle of divergence approx. 3 Ambient light limit 40000 Lux Functional safety related parameters 2340 a $\mathsf{MTTF}_\mathsf{d}$ Mission Time (T<sub>M</sub>) Diagnostic Coverage (DC) 0 % Indicators/operating means Function display LED yellow: switching state **Electrical specifications** Operating voltage 10 ... 30 V DC , class 2 Ripple max. 10 % < 12 mA No-load supply current Output Switching type light on Signal output 1 PNP output, short-circuit protected, reverse polarity protected, open collector Switching voltage max. 30 V DC Switching current max. 100 mA Voltage drop $\leq$ 1.5 V DC Response time 1.8 ms **Ambient conditions** -20 ... 60 °C (-4 ... 140 °F) Ambient temperature Storage temperature -40 ... 75 °C (-40 ... 167 °F) **Mechanical specifications** IP67 Protection degree Connection M8 x 1 connector, 4-pin Material Housing PC (glass-fiber-reinforced Makrolon) Optical face **PMMA** Connector plastic Mass approx. 10 g Compliance with standards and directi-EMC Directive 2004/108/EC Directive conformity Standard conformity EN 60947-5-2:2007 Product standard Protection degree EN 60529 Standards EN 50178, UL 508 Approvals and certificates

# **Curves/Diagrams**

Protection class

UL approval

CCC approval



ding to IEC 60664-1

## Accessories

## Montagekit OMH-ML7-01

Mounting set consisting of bracket OMH-ML-01 sheet OMH-ML7-03, and fastening material

# Montagekit OMH-ML7-02

Mounting set consisting of bracket OMH-ML-02 sheet OMH-ML7-03, and fastening material

## **OMH-ML7-01**

Mounting bracket

#### OMH-ML7-02

Mounting bracket

### **OMH-ML7-03**

Fixing plate

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

4-pin, M8 socket, PUR cable

#### V31-WM-2M-PVC

M8, 4-pin socket, PVC cable

## V31-GM-2M-PVC

M8, 4-pin socket, PVC cable

#### V31-GM-2M-PUR

4-pin, M8 socket, PUR cable

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

II, rated voltage ≤ 250 V AC with pollution degree 1-2 accor-

CCC approval / marking not required for products rated ≤36 V

cULus Listed, Class 2 Power Source, Type 1 enclosure