



Model Number

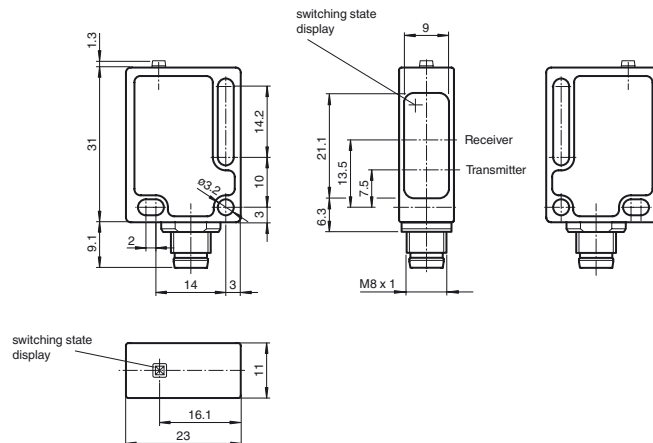
ML8-55/103/138/143

Retroreflective sensor
with 4-pin, M8 x 1 connector

Features

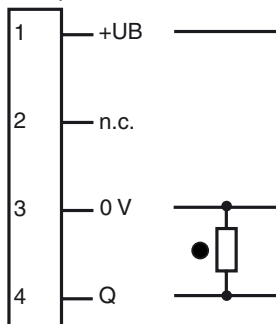
- Miniature design
- 2-way LED indicator for switch status
- Flexible mounting possibilities due to slotted hole
- Waterproof, protection degree IP67
- Protection class II

Dimensions



Electrical connection

Option: 103

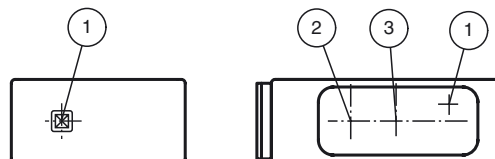


○ = Light on
● = Dark on

Pinout



Indicators/operating means



1	Switching state	yellow
2	Emitter	
3	Receiver	

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Technical data**General specifications**

Effective detection range	0 ... 3 m
Reflector distance	0.02 ... 3 m
Threshold detection range	3.5 m
Reference target	H85-2 reflector
Light source	LED
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

MTTF _d	2340 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function display	LED yellow: switching state
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Electrical specifications

Operating voltage	U _B	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I ₀	< 12 mA

Output

Switching type	dark on	
Signal output	1 PNP output, short-circuit protected, protected from reverse polarity, open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA	
Voltage drop	U _d	≤ 1.5 V DC
Response time		1.8 ms

Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)

Mechanical specifications

Protection degree	IP67
Connection	M8 x 1 connector, 4-pin
Material	
Housing	PC (glass-fiber-reinforced Makrolon)
Optical face	PMMA
Mass	approx. 10 g
Tightening torque, fastening screws	≤ 0.4 Nm

Compliance with standards and directives

Directive conformity	EMC Directive 2004/108/EC
Standard conformity	
Product standard	EN 60947-5-2:2007
Protection degree	EN 60529
Standards	EN 50178, UL 508

Approvals and certificates

Protection class	II, rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1
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.

Accessories**Montagekit OMH-ML7-01**

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

Montagekit OMH-ML7-02

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

OMH-ML7-01

Mounting bracket

OMH-ML7-02

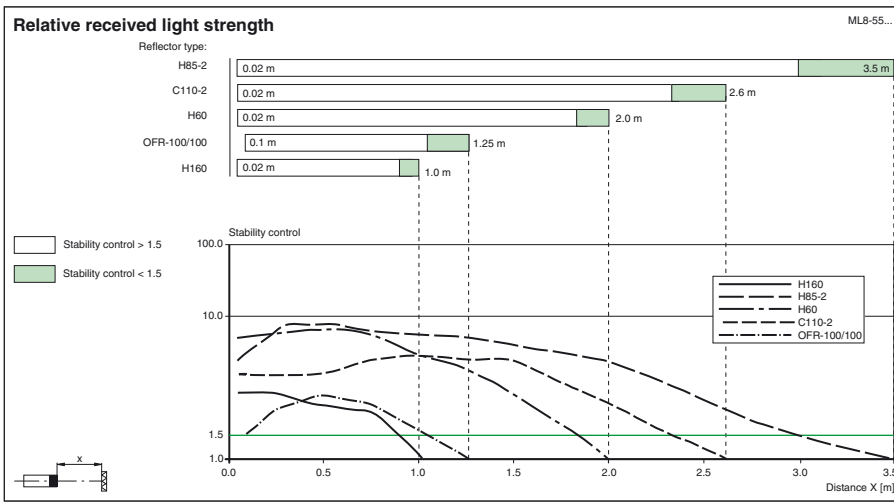
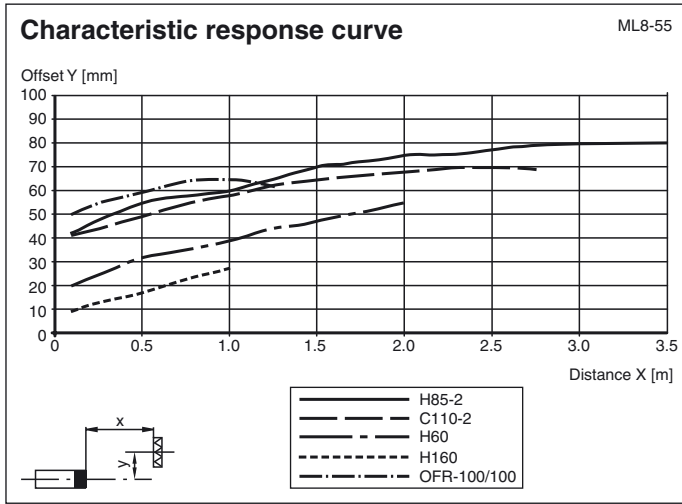
Mounting bracket

OMH-ML7-03

Fixing plate

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

Curves/Diagrams



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