



Model Number

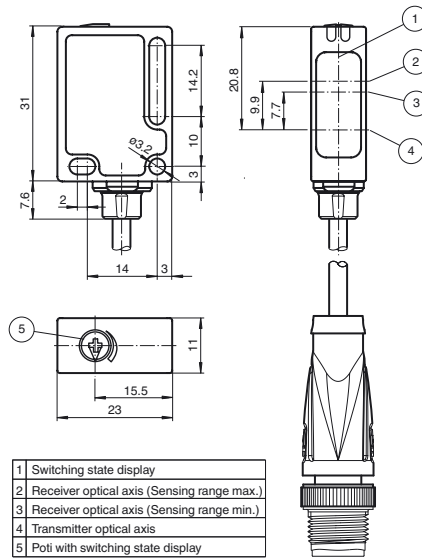
ML8-8-HGU-220-RT/59/103/115b

Convergent mode sensor
with fixed cable and M12 connector, 4-pin

Features

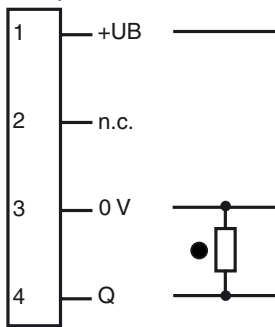
- Miniature design
- Background interference suppression
- Mechanical adjustable detection range
- Not sensitive to ambient light, even with switched energy saving lamps
- Flexible mounting possibilities due to slotted hole

Dimensions



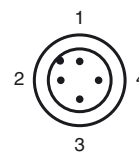
Electrical connection

Option: 103



○ = Light on
● = Dark on

Pinout



Release date: 2011-03-15 14:33 Date of issue: 2011-03-15 204323_ENG.xml

Subject to modifications without notice

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Technical data

General specifications

Detection range	5 ... 220 mm
Adjustment range	100 ... 220 mm
Reference target	standard white, 100 mm x 100 mm
Light source	LED , 645 nm
Light type	modulated visible red light
Diameter of the light spot	approx. 10 mm at detection range 220 mm
Angle of divergence	approx. 2.6 °
Ambient light limit	EN 60947-5-2

Functional safety related parameters

MTTF _d	830 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function display	2 LEDs yellow, light up in case of detection
Controls	Detection range adjuster

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I ₀	< 15 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
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	IP65/IP67
Material	
Housing	PC (glass-fiber-reinforced Makrolon)
Optical face	PMMA
Mass	approx. 20 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

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

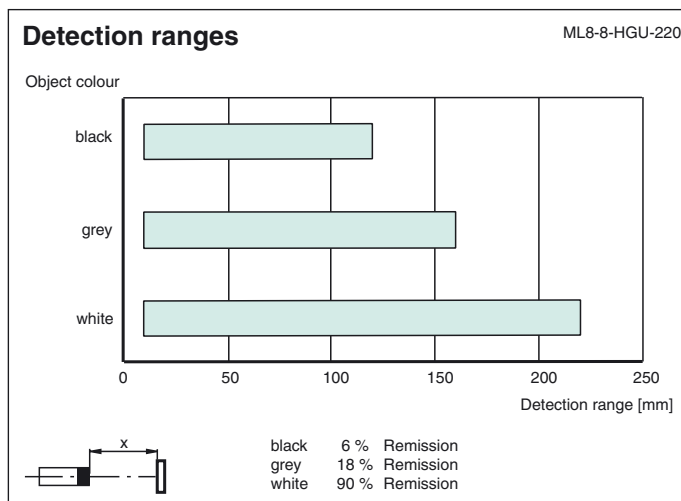
OMH-ML7-02

Mounting bracket

OMH-ML7-03

Fixing plate

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



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