Dimensions

Model Number

ML8-54-F-5771

Retroreflective sensor

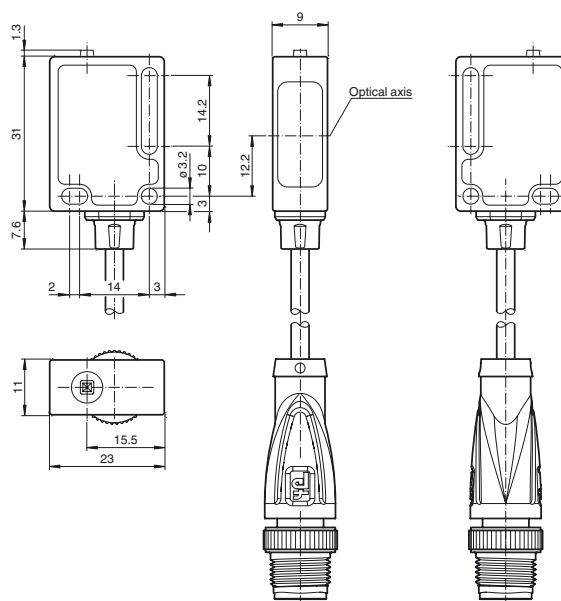300 mm fixed cable with M12 x 1, 4-pin connector

Features

- Cost-optimized series for standard tasks
- Miniature design
- Coaxial optical system
- Usable up to detection range 0
- High accuracy for precise positioning operations
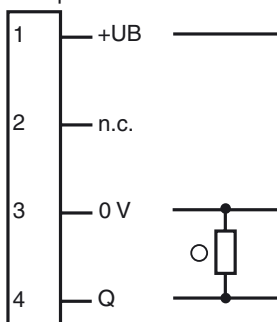- Flexible use with versatile mounting opportunities

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.

Electrical connection

Option: 103
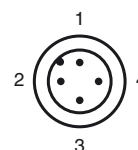
1	+UB
2	n.c.
3	0 V
4	Q

○ = Light on
● = Dark on

Pinout

Subject to modifications without notice

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Technical data

General specifications

Effective detection range	0 ... 1.5 m
Reflector distance	0 ... 1.5 m
Threshold detection range	1.9 m
Reference target	H85-2 reflector
Light source	LED
Light type	modulated visible red light , 660 nm
Angle deviation	max. ± 1°
Diameter of the light spot	approx. 40 mm at detection range 1 m
Angle of divergence	1.7 °
Ambient light limit	40000 Lux

Functional safety related parameters

$MTTF_d$	980 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function display	LED, yellow switching state Stability control

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I_0	< 20 mA at 24 V DC

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
Switching frequency	f	1 kHz
Response time		500 µs

Ambient conditions

Ambient temperature	-30 ... 60 °C (-22 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)

Mechanical specifications

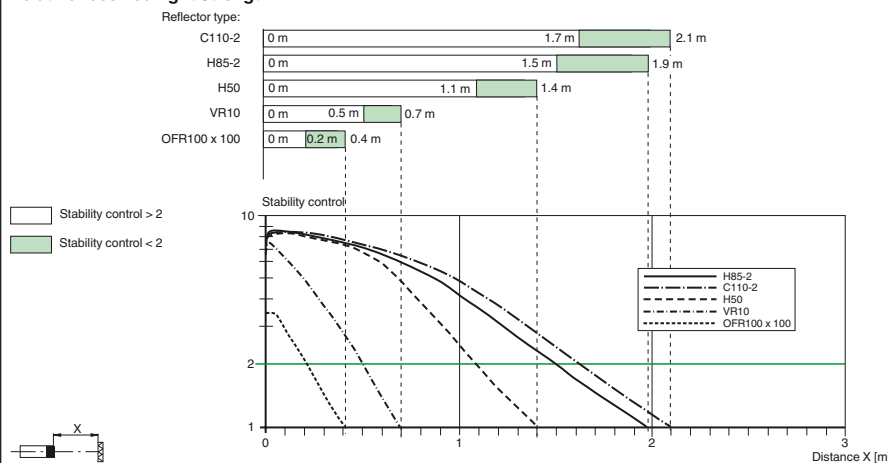|	
Protection degree	IP67
Connection	fixed cable 300 mm with M12 x 1 connector , 4-pin
Material	
Housing	PC (glass-fiber-reinforced Makrolon)
Optical face	PMMA
Mass	30 g

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 ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1 functional insulation acc. to DIN EN 50178
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.

Relative received light strength

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