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Model Number

ML8-8-H-100-RT/65a/102/143/162

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

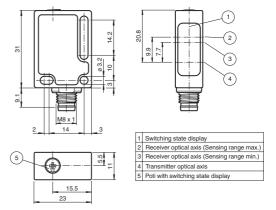
Features

- Diffuse mode sensor with multiple light spots
- Specially designed for detecting critical objects such as PCBs
- Detects objects in front of a close background through precise background suppression
- Can be adapted to the application in question thanks to the adjustable detection range
- Precision object detection, almost irrespective of the color
- Not sensitive to ambient light, even with switched energy saving lamps

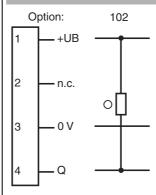
Product information

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





Technical data		
General specifications		
Detection range		20 100 mm
Detection range min.		10 25 mm
Detection range max.		25 100 mm
Adjustment range		25 100 mm
Reference target		standard white, 100 mm x 100 mm
Light source		LED
Light type	/ \	modulated visible red light , 640 nm < 20 %
Black/White difference (6 %/90 % Diameter of the light spot	(0)	< 20 % 2 light spots, 12 mm apart, spotsize 4 mm at a distance of 50 mm, 25 mm apart, spotsize 10 mm at a distance of 100 mm (outer spot to outer spot)
Ambient light limit		EN 60947-5-2
Functional safety related param	neters	
MTTF _d		794 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Function indicator		2 LEDs yellow, light up in case of detection
Control elements		Detection range adjuster
Electrical specifications		- '
Operating voltage	U_{B}	10 30 V DC , class 2
Ripple	D	max. 10 %
No-load supply current	I _O	< 15 mA
Output	•	
Switching type		light on
Signal output		NPN output, short-circuit protected, reverse polarity protected 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		-20 60 °C (-4 140 °F)
Storage temperature		-40 70 °C (-40 158 °F)
Mechanical specifications		
Degree of protection		IP67
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 ves	d directi	-
Directive conformity		EMC Directive 2004/108/EC
Standard conformity		
Product standard		EN 60947-5-2:2007
Degree of protection		EN 60529
Standards		EN 50178, UL 508
Approvals and certificates		
UL approval		cULus Listed, Class 2 Power Source, Type 1 enclosure

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

Female cordset, M8, 4-pin, PUR cable

V31-GM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

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

CCC approval

CCC approval / marking not required for products rated \leq 36 V