



Model Number

M100/MV100-IR/76a/95/103

Thru-beam sensor with 4-pin, M8 x 1 connector

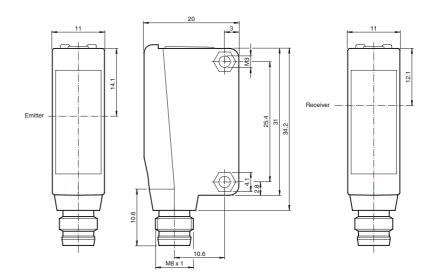
Features

- Miniature design
- Easy to use
- Full metal thread mounting
- Highly visible LEDs for Power ON and switching state
- Not sensitive to ambient light

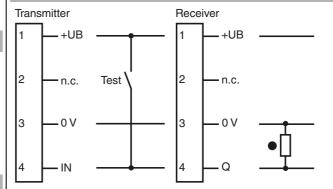
Product information

The ML100 series is characterized by its miniature housing with integral, all-metal threaded bushings. All versions are equipped with a visible red transmitter LED. This greatly simplifies installation and commissioning. The switching states are easily visible from all directions thanks to the highly visible LEDs.

Dimensions



Electrical connection

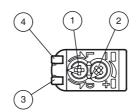


- O = Light on
- = Dark on

Pinout



Indicators/operating means



1	Light-Dark-switching	
2	Sensitivity adjuster	
3	Signal display	yellow
4	Operating display	areen

Technical data			
System components			
Emitter		M100-IR/76a/95	
Receiver		MV100-IR/95/103	
Seneral specifications			
Effective detection range		0 15 m	
Threshold detection range		20 m	
Light source		LED	
Light type		modulated infrared light	
Diameter of the light spot		approx. 1.5 m at a distance of 20 m	
Angle of divergence		approx. 2 °	
Optical face		frontal	
Ambient light limit		EN 60947-5-2	
Functional safety related parame	eters		
MTTF _d		860 a	
Mission Time (T _M)		20 a	
Diagnostic Coverage (DC)		0 %	
ndicators/operating means			
Operation indicator		LED green: power on	
Function indicator		Receiver: LED yellow, lights up when light beam is free, flashes when falling short of the stability control; OFF when light beam is interrupted	
Control elements		sensitivity adjustment	
Control elements		Light/Dark switch	
Electrical specifications			
Operating voltage	U _B	10 30 V DC , class 2	
Ripple	- 6	max. 10 %	
No-load supply current	Io	Emitter: ≤ 15 mA	
,	O	Receiver: ≤ 8 mA	
nput			
Test input		emitter deactivation at +U _B	
Output			
Switching type		light/dark on, switchable	
Signal output		1 PNP output, short-circuit protected, reverse polarity protected open collector	
Switching voltage		max. 30 V DC	
Switching current		max. 100 mA , resistive load	
Voltage drop	U_d	≤ 1.5 V DC	
Switching frequency	f	250 Hz	
Response time		2 ms	
Ambient conditions			
Ambient temperature		-30 60 °C (-22 140 °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 (Polycarbonate)	
Optical face		PMMA	
Mass		approx. 20 g (emitter and receiver)	
Compliance with standards and es	directi		
Directive conformity			
EMC Directive 2004/108/EC		EN 60947-5-2	
Standard conformity			
Standards		UL 508	
Approvals and certificates			
UL approval		cULus Listed, Class 2 Power Source, Type 1 enclosure	
CCC approval		CCC approval / marking not required for products rated ≤36 V	

Accessories

OMH-ML100-03

Mounting aid for round steel ø 12 mm or sheet 1.5 mm ... 3 mm

OMH-ML100-04

Mounting bracket

OMH-ML100-05

Mounting bracket

OMH-ML100-08

Mounting aid

OMH-F10-ML100

Mounting aid for ML100 series

OMH-10

Mounting aid

V31-WM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

V31-GM-2M-PUR

Female cordset, M8, 4-pin, PUR cable

Additional accessories can be found in the Internet.

Curves/Diagrams

