



**Model Number**

**M100/MV100-RT/35/76b/95/102**

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

**Features**

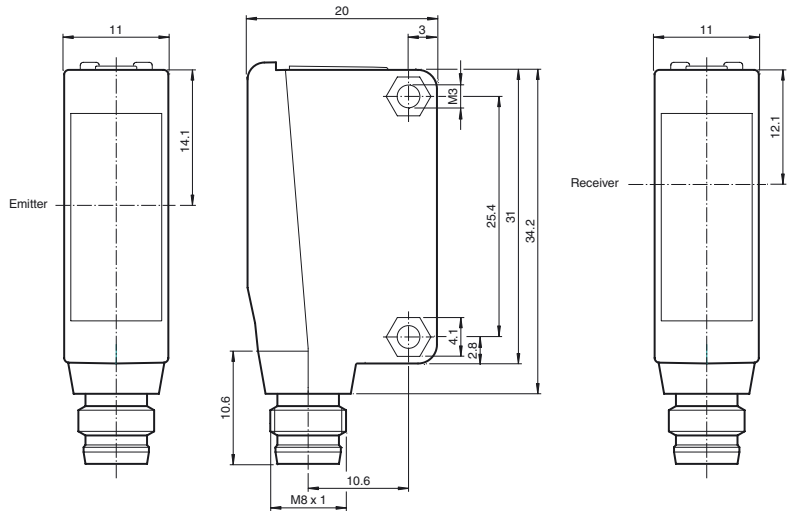
- Miniature design
- Easy to use
- Very bright, highly visible light spot
- Full metal thread mounting
- Highly visible LEDs for Power ON and switching state
- Not sensitive to ambient light

**Product information**

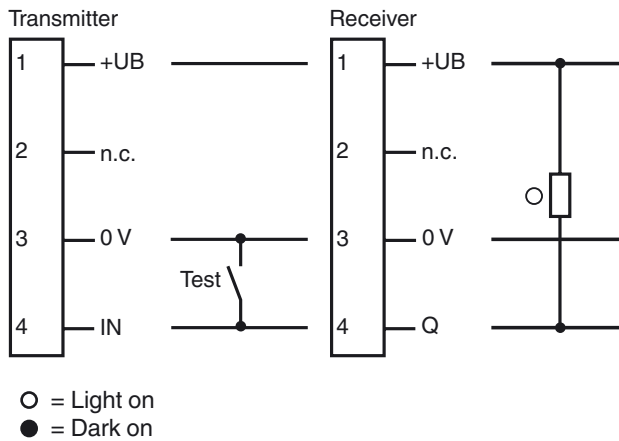
The ML100 series is characterized by its miniature housing with integral, all-metal threaded bushings. All versions are equipped with a visible red transmitter LED. This greatly simplifies installation and commissioning. The switching states are easily visible from all directions thanks to the highly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

Release date: 2011-08-23 14:12 Date of issue: 2011-08-23 223943\_eng.xml

**Dimensions**



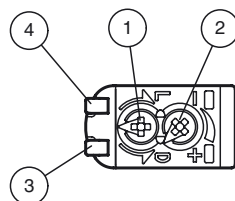
**Electrical connection**



**Pinout**



**Indicators/operating means**



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

**Technical data****System components**

Emitter	M100-RT/35/76b/95
Receiver	MV100-RT/35/95/102

**General specifications**

Effective detection range	0 ... 20 m
Threshold detection range	30 m
Light source	LED
Light type	modulated visible red light
Approvals	CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure)
Diameter of the light spot	approx. 2 m at a distance of 30 m
Angle of divergence	approx. 2 °
Optical face	frontal
Ambient light limit	EN 60947-5-2

**Functional safety related parameters**

MTTF <sub>d</sub>	860 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

Operating display	LED green: power on
Function display	Receiver: LED yellow, lights up when light beam is free, flashes when falling short of the stability control ; OFF when light beam is interrupted
Controls	sensitivity adjustment
Controls	Light/Dark switch

**Electrical specifications**

Operating voltage	U <sub>B</sub>	10 ... 30 V DC , class 2
Ripple		max. 10 %
No-load supply current	I <sub>0</sub>	Emitter: ≤ 15 mA Receiver: ≤ 8 mA

**Input**

Test input	emitter deactivation at 0 V
------------	-----------------------------

**Output**

Switching type	light/dark on, switchable	
Signal output	1 NPN 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 <sub>d</sub>	≤ 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**

Protection degree	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 directives**

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	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

**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-F10-ML100**

Mounting aid for ML100 series

**OMH-10**

Mounting aid

**V3-GM-2M-PUR**

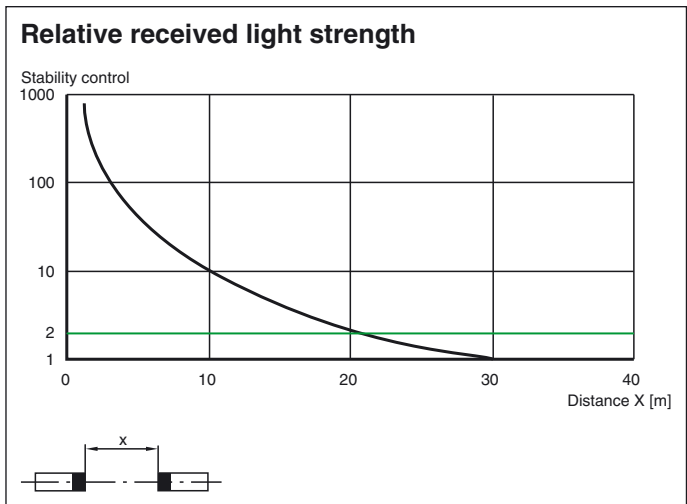
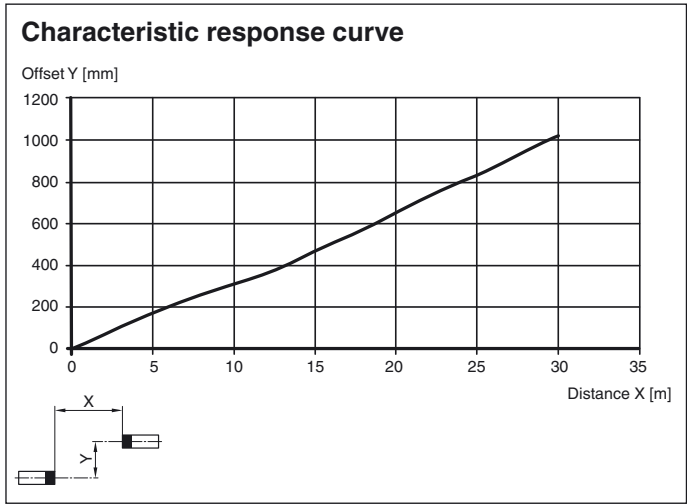
Cable socket, M8, 3-pin, PUR cable

**V3-WM-2M-PUR**

Cable socket, M8, 3-pin, PUR cable

Additional accessories can be found in the Internet.

**Curves/Diagrams**



Release date: 2011-08-23 14:12 Date of issue: 2011-08-23 223943\_eng.xml

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Photoelectric Sensors](#) category:*

*Click to view products by [Pepperl & Fuchs](#) manufacturer:*

Other Similar products are found below :

[E3JM-DS70R4T-US](#) [E3L2DC4](#) [E3RA-DN12 2M](#) [E3RA-DP12 2M](#) [E3S5LE4S](#) [E3S-AD38](#) [E3S-CR11 5M](#) [E3SCT11D5M](#) [E3SCT11M1J03M](#)  
[E3T-CT22S](#) [E3T-FD12R](#) [E3T-SL14R](#) [E3T-SL24 5M](#) [E3T-ST12R](#) [E3T-ST24 2M](#) [E3X-CN02](#) [E3X-CN11 5M](#) [E3X-CN21 10M](#) [E3ZM-B66](#)  
[E3ZM-CL81H 2M](#) [E3Z-T62 2M](#) [NJL5303R-TE1](#) [PB10CNT15PO](#) [PD60CNX20BP](#) [FZS](#) [CX-491-P-J](#) [CX-491-Z](#) [XUM2BKCNL2T](#)  
[XUM2BKCNL2T](#) [XUM2BNANL2R](#) [Y92E-ES30M](#) [Y92E-GS08SS](#) [ZXTDS04T](#) [ZX-XC4A 4M](#) [E3E23Y2US](#) [E3JM-DS70S4-US](#) [E3RA-](#)  
[RN11 2M](#) [E3S5LE42M](#) [E3S-LS20XB4 5M](#) [E3S-LS3PW 2M](#) [E3TFD14N](#) [E3T-FD14R](#) [E3T-SL21 5M](#) [E3T-SL21M](#) [E3T-ST11R](#) [E3T-ST12](#)  
[5M](#) [E3X-DA41-S-M1J 0.3M](#) [E3X-DAB6](#) [E3X-DAG8](#) [E3ZM-B86](#)