



**Model Number**

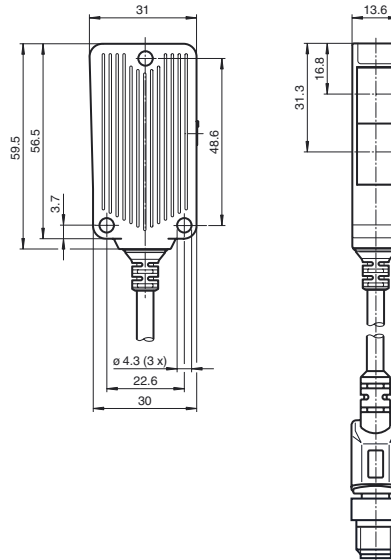
**MLV41-8-H-RT-5036**

Background suppression sensor with fixed cable and M12 connector, 4-pin

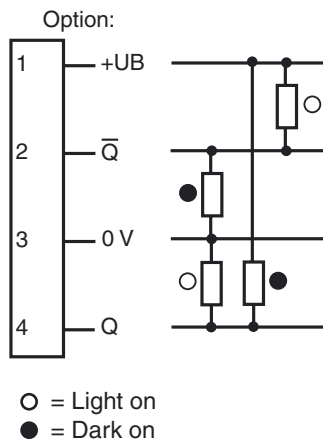
**Features**

- Reliable detection of all surfaces, independent of color and structure
- Minimal black/white difference
- Precise background suppression
- Extremely high switching frequency
- Clearly visible function indicators
- Short circuit and low voltage indicator

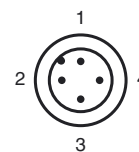
**Dimensions**



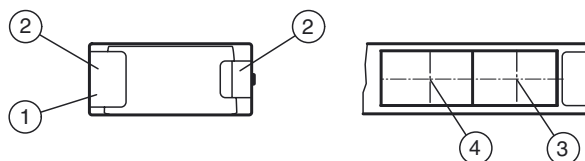
**Electrical connection**



**Pinout**



**Indicators/operating means**



1	Operating display green	3	Optical axis transmitter
2	Function display yellow	4	Optical axis receiver

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Subject to modifications without notice

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**Technical data****General specifications**

Detection range	30 ... 320 mm fixed
Background suppression	+ 10 % of the upper limit of the detection range
Light source	LED
Light type	modulated visible red light , 660 nm
Black/White difference (6 %/90 %)	< 15 % at 320 mm
Diameter of the light spot	approx. 8 mm at sensor range 320 mm
Angle of divergence	1.5 °
Ambient light limit	40000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	1260 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

Operating display	LED green, statically lit Power on , Undervoltage indicator: Green LED, pulsing (approx. 0.8 Hz) , short-circuit : LED green flashing (approx. 4 Hz)
Function display	2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range

**Electrical specifications**

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I <sub>0</sub>	max. 25 mA

**Output**

Signal output	2 Push-pull outputs, complementary, short-circuit proof, reverse polarity protected	
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U <sub>d</sub>	≤ 2.5 V DC
Switching frequency	f	1000 Hz
Response time		0.5 ms

**Ambient conditions**

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

**Mechanical specifications**

Protection degree	IP67
Connection	fixed cable 300 mm with M12 connector, 4-pin
Material	
Housing	aluminum , Delta-Seal coated
Optical face	glass pane
Mass	100 g

**Compliance with standards and directives**

Directive conformity	
EMC Directive 2004/108/EC	EN 60947-5-2:2007
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

**Approvals and certificates**

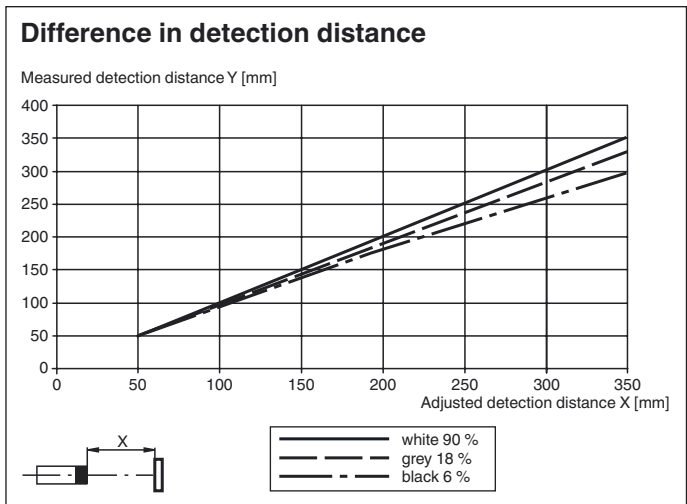
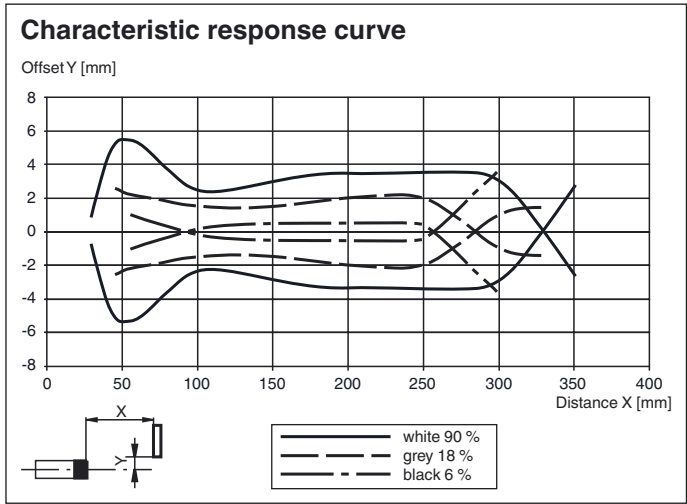
Protection class	II, rated voltage ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1 , functional insulation acc. to DIN EN 50178
UL approval	cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure)
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

**Accessories****OMH-40**

Mounting bracket

**OMH-09**Mounting bracket for Sensors series  
MLV41 for M12 rod mountingOther suitable accessories can be found at  
[www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

Curves/Diagrams



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