



**Model Number**

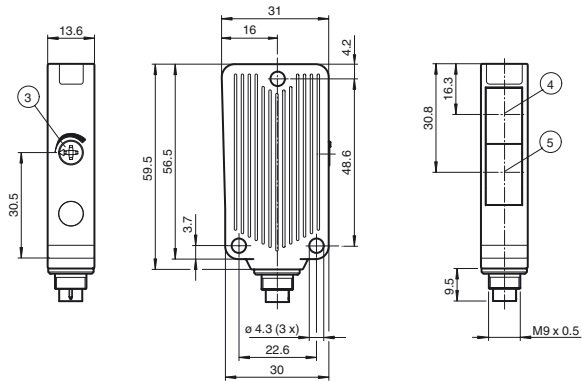
**MLV41-8-H-120-RT-6628**

Background suppression sensor  
HDM No. FH.1343521/00

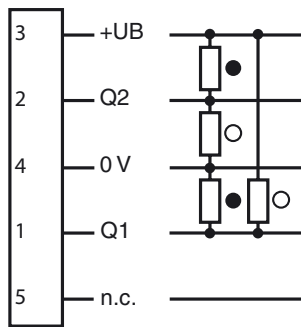
**Features**

- Reliable detection of all surfaces, independent of color and structure
- Precision background suppression, adjustable
- Low sensitivity to target color
- PowerBeam transmitter LED
- Very small light beam diameter

**Dimensions**



**Electrical connection**



○ = Light on  
● = Dark on

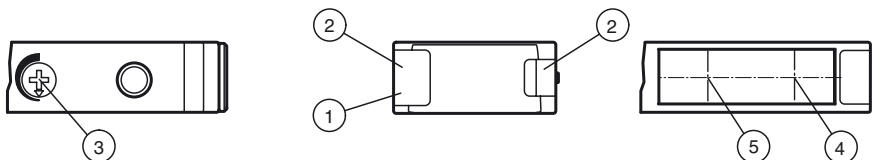
**Pinout**



Wire colors in accordance with EN 60947-5-2

- 1 | BN (brown)
- 2 | WH (white)
- 3 | BU (blue)
- 4 | BK (black)
- 5 | GY (gray)

**Indicators/operating means**



1	Operating display green	3	Sensing range adjuster	5	Optical axis receiver
2	Function display yellow	4	Optical axis transmitter		

Release date: 2019-11-27 14:11 Date of issue: 2019-11-27 272298\_eng.xml

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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

Detection range	20 ... 120 mm Black-white difference < 3%
Adjustment range	20 ... 120 mm
Reference target	standard white, 100 mm x 100 mm
Light source	LED
Light type	modulated visible red light
Diameter of the light spot	approx. 4 mm at sensor range 100 mm
Angle of divergence	approx. 2.5 °
Ambient light limit	25000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	500 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

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

**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>	max. 25 mA at 24 V supply voltage

**Output**

Signal output	2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA	
Voltage drop	U <sub>d</sub>	≤ 2 V DC
Switching frequency	f	200 Hz
Response time		2.5 ms

**Conformity**

Product standard	EN 60947-5-2
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**Ambient conditions**

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)

**Mechanical specifications**

Housing width	31 mm
Housing height	56.5 mm
Housing depth	13.6 mm
Degree of protection	IP67
Connection	with M9, 5-pin metal connector
Material	
Housing	Aluminum , Delta-Seal coated
Optical face	glass pane
Connector	metal
Mass	approx. 40 g

**Approvals and certificates**

UL approval	cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure)
CCC approval	CCC approval / marking not required for products rated ≤36 V

**Accessories****OMH-09**

Mounting bracket for Sensors series MLV41 for M12 rod mounting

**OMH-40**

Mounting bracket

**OMH-41**

Mounting bracket

**V1-G-2M-PUR**

Female cordset, M12, 4-pin, PUR cable

**V1-W-2M-PUR**

Female cordset, M12, 4-pin, PUR cable

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)

## Curves/Diagrams

