



Model Number

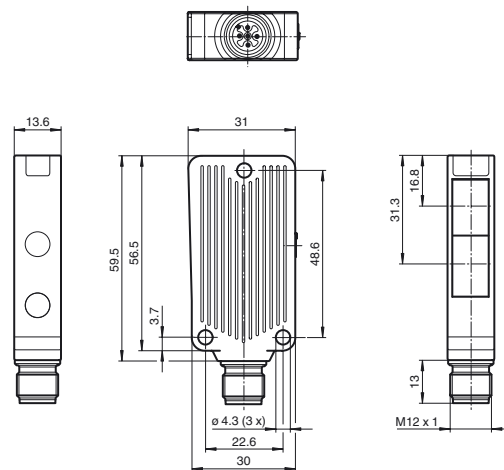
MLV41-8-HV-60-IR/110/124/167

Background suppression sensor
with 5-pin, M12 x 1 connector

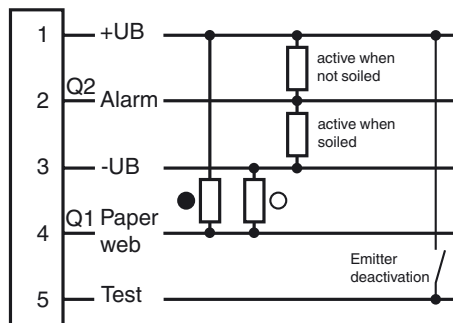
Features

- Special device for paper web break control and printing machinery
- Active contamination detection
- Sensing range 20 mm ... 60 mm
- Light scanner with foreground suppression 0 mm ... 15 mm and background suppression beyond 70 mm
- Minimal black-white difference
- Sturdy aluminum housing
- Degree of protection IP67

Dimensions

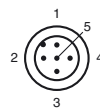


Electrical connection



○ = Light on
● = Dark on

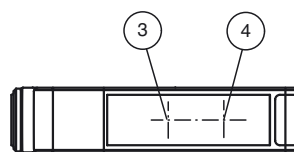
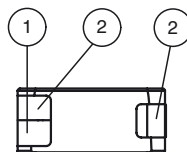
Pinout



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
2	Signal display	yellow
4	Receiver	
5	Emitter	

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

Foreground suppression	0 ... 15 mm
Detection range	on black (6 %): 20 ... 60 mm fixed
Detection range min.	20 ... 60 mm
Detection range max.	16 ... 70 mm
Background suppression	starts from 70 mm
Light source	IREC
Light type	modulated infrared light , 880 nm
Polarization filter	no
Black/White difference (6 %/90 %)	< 1 % at 60 mm
Diameter of the light spot	max. 6 mm at a distance of 70 mm
Angle of divergence	approx. 4 °
Ambient light limit	50000 Lux

Functional safety related parameters

MTTF _d	1260 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED green, statically lit Power on, short-circuit or low voltage : pulsing (1 Hz). Pollution : flashing (1 Hz)
Function indicator	2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I ₀	max. 25 mA

Input

Test input	emitter deactivation at +U _B
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Output

Pre-fault indication output	1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected
Signal output	1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected
Switching voltage	max. 30 V DC
Switching current	max. 100 mA
Voltage drop	U _d ≤ 2.5 V DC
Switching frequency	f 250 Hz
Response time	2 ms

Conformity

Product standard	EN 60947-5-2
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Ambient conditions

Ambient temperature	0 ... 70 °C (32 ... 158 °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	5-pin, M12 x 1 connector
Material	
Housing	Aluminum , Delta-Seal coated
Optical face	glass pane
Connector	metal
Mass	50 g

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	CCC approval / marking not required for products rated ≤36 V

Accessories**OMH-MLV41-8-HV-L**

Mounting bracket

OMH-MLV41-8-HV-U

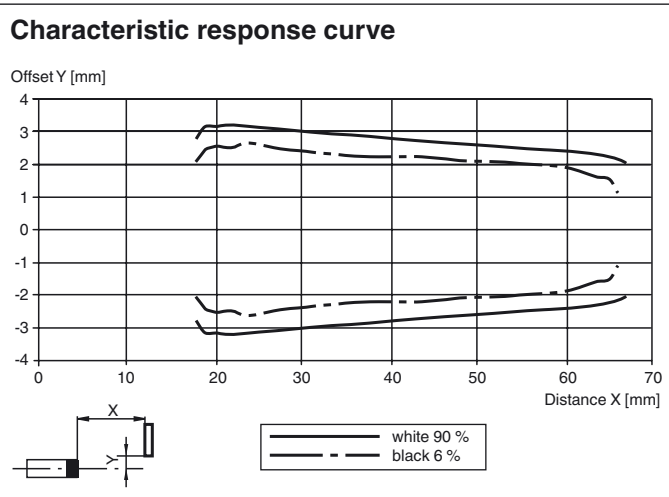
Mounting bracket

OMH-40

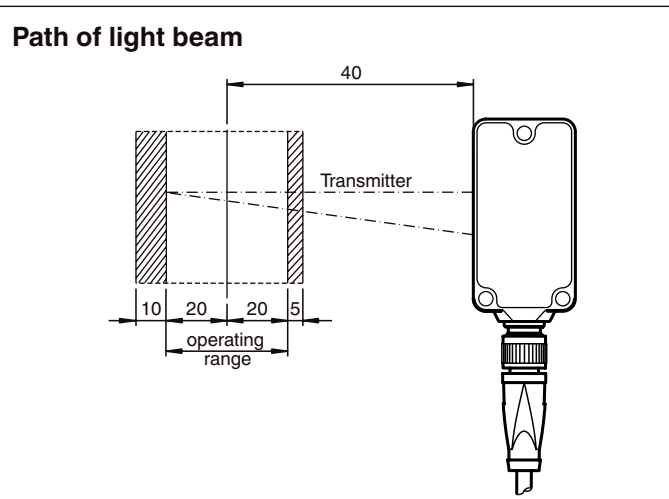
Mounting bracket

OMH-09Mounting bracket for Sensors series
MLV41 for M12 rod mountingOther suitable accessories can be found at
www.pepperl-fuchs.com

Curves/Diagrams



Curves/Diagrams

**Diffuse mode sensor test**

The test monitors the operation of the sensor outputs after switching on the power supply.
It does not monitor the "optical channels" of the light curtain.

