

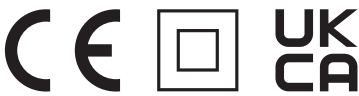


## Background suppression sensor MLV41-8-HV-60-IR/110/124/167

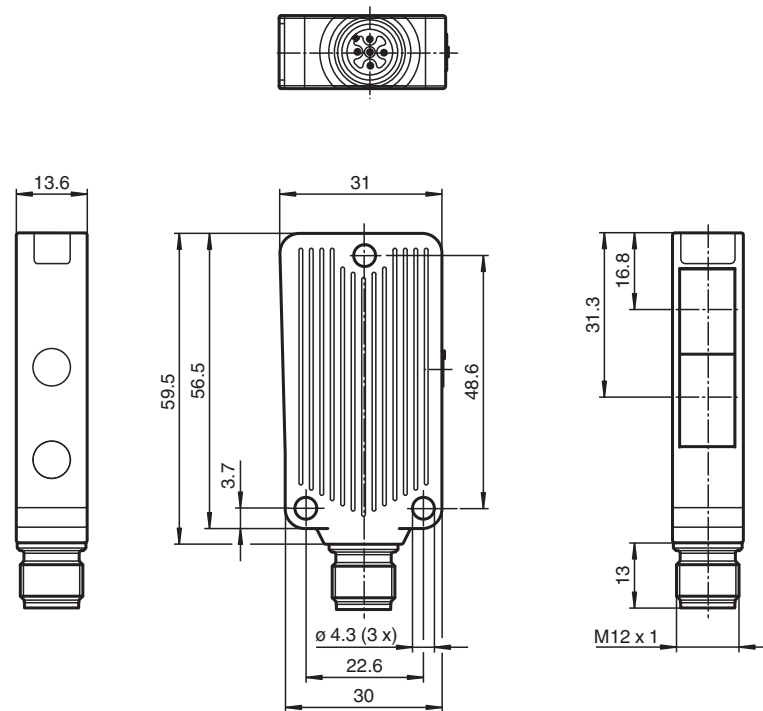


- Special device for paper web break control and printing machinery
- Active contamination detection
- Sensing range 20 mm ... 60 mm
- Light scanner with foreground suppression 0 mm ... 15 mm and background suppression beyond 70 mm
- Minimal black-white difference
- Sturdy aluminum housing
- Degree of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

Robust diffuse mode sensor for monitoring web breaks, compact housing design, foreground and background suppression, 60 mm detection range, infrared light, push-pull output, weak signal output, M12 plug



### Dimensions



### Technical Data

#### General specifications

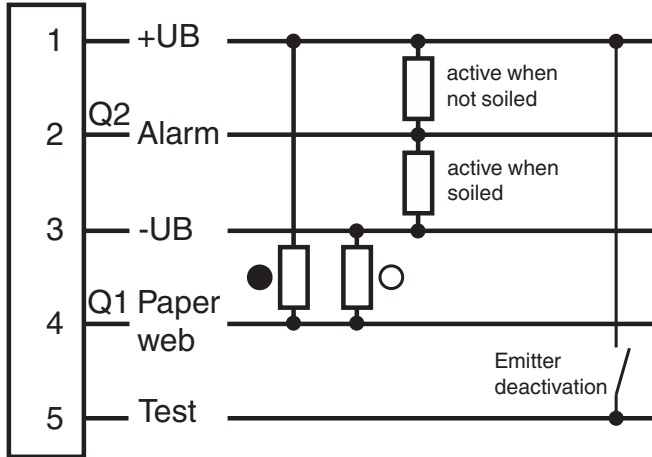
## Technical Data

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	IRED	
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	
Opening angle	approx. 4 °	
Ambient light limit	50000 Lux	
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>	1260 a	
Mission Time (T <sub>M</sub> )	20 a	
Diagnostic Coverage (DC)	0 %	
<b>Indicators/operating means</b>		
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	
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	max. 25 mA
<b>Input</b>		
Test input	emitter deactivation at +U <sub>B</sub>	
<b>Output</b>		
Stability alarm 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 <sub>d</sub>	≤ 2.5 V DC
Switching frequency	f	250 Hz
Response time	2 ms	
<b>Conformity</b>		
Product standard	EN 60947-5-2	
<b>Approvals and certificates</b>		
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	
<b>Ambient conditions</b>		
Ambient temperature	0 ... 70 °C (32 ... 158 °F)	
Storage temperature	-40 ... 75 °C (-40 ... 167 °F)	
<b>Mechanical specifications</b>		
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	

**Technical Data**

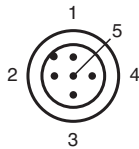
Optical face	glass pane
Connector	metal
Mass	50 g

**Connection Assignment**



○ = Light on  
● = Dark on

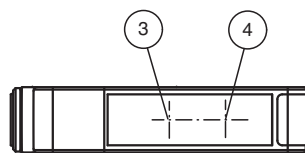
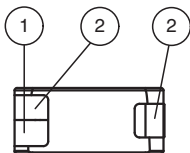
**Connection Assignment**



Wire colors in accordance with EN 60947-5-2

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

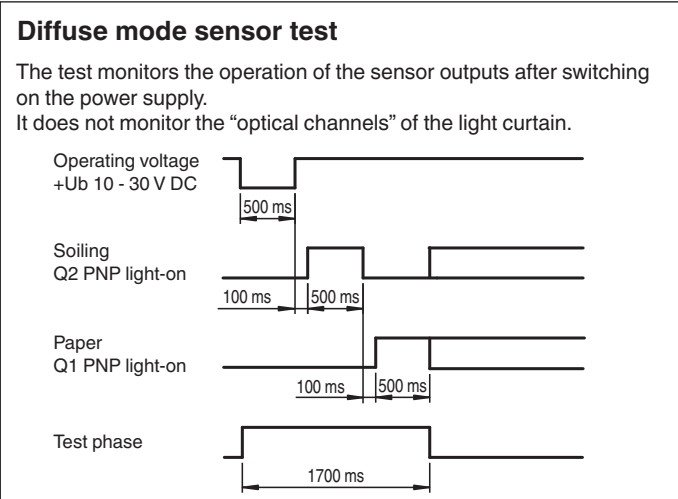
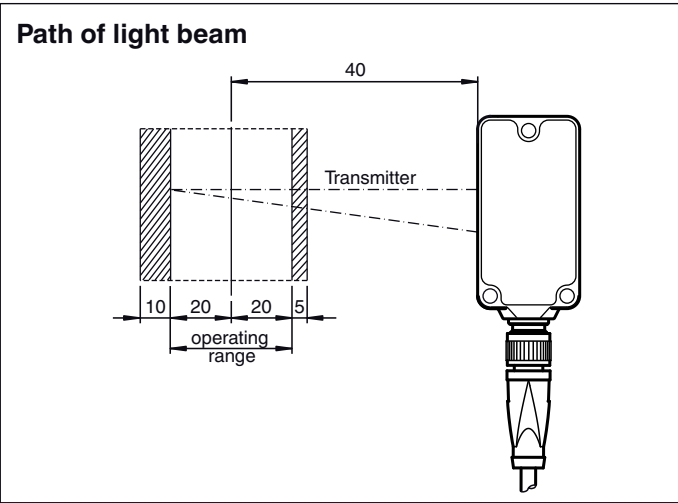
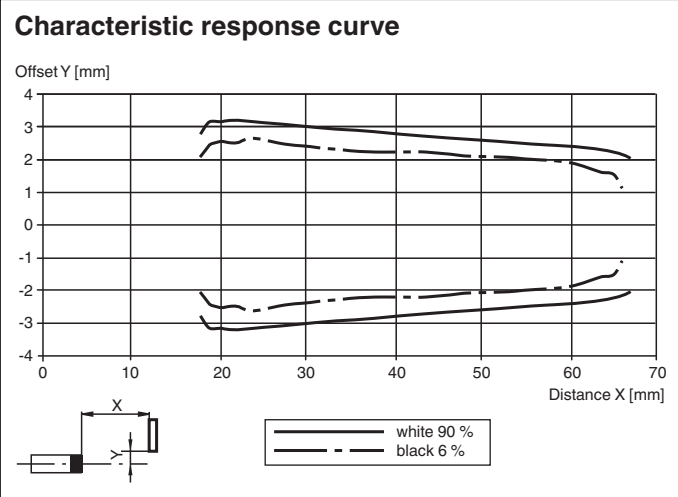
**Assembly**



1	Operating display	green
2	Signal display	yellow
4	Receiver	
5	Emitter	

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 224265\_eng.pdf

**Characteristic Curve**



**Accessories**

	<b>OMH-MLV41-8-HV-L</b>	Mounting bracket
	<b>OMH-MLV41-8-HV-U</b>	Mounting bracket
	<b>OMH-40</b>	Mounting bracket

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 224265\_eng.pdf

## Accessories



**OMH-09**

Mounting bracket for Sensors series MLV41 for M12 rod mounting