



Background suppression sensor MLV41-8-H-RT-5036

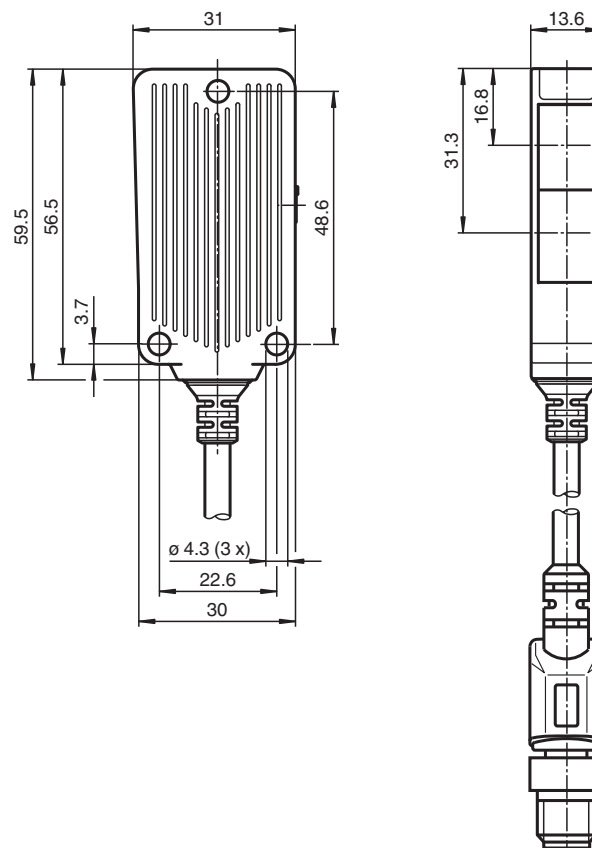


- Reliable detection of all surfaces, independent of color and structure
- Minimal black-white difference
- Precise background suppression
- Extremely high switching frequency
- Clearly visible function indicators
- Short circuit and low voltage indicator

Background suppression sensor



Dimensions



Technical Data

General specifications

Detection range	30 ... 320 mm fixed
Background suppression	+ 10 % of the upper limit of the detection range

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 231591_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

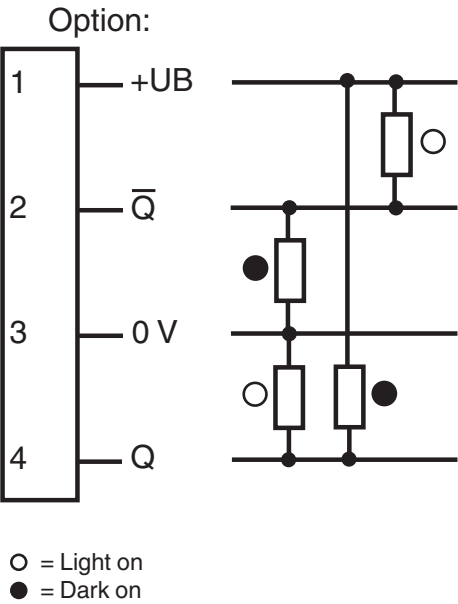
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

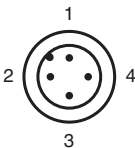
Technical Data

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
Opening angle		1.5 °
Ambient light limit		40000 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 , 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
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I ₀	max. 25 mA
Output		
Signal output		2 push-pull (4 in 1) outputs, complementary, short-circuit proof, 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	1000 Hz
Response time		0.5 ms
Conformity		
Product standard		EN 60947-5-2
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
Ambient conditions		
Ambient temperature		-40 ... 60 °C (-40 ... 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		fixed cable 300 mm with M12 connector, 4-pin
Material		
Housing		Aluminum , Delta-Seal coated
Optical face		glass pane
Mass		100 g

Connection



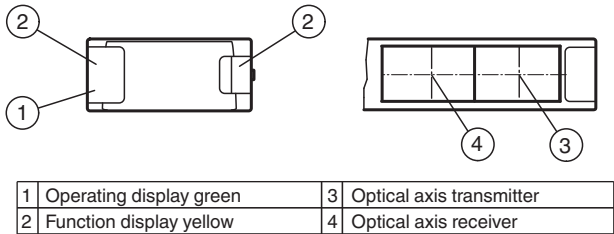
Connection Assignment



Wire colors in accordance with EN 60947-5-2

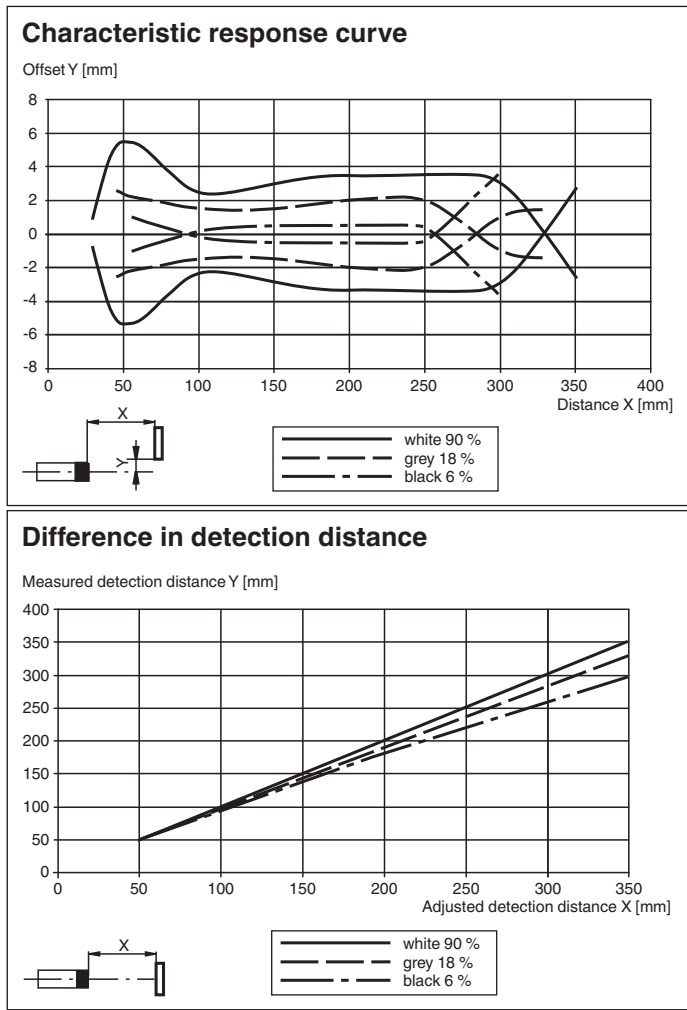
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Assembly



Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 231591_eng.pdf

Characteristic Curve



Accessories

	OMH-40	Mounting bracket
	OMH-09	Mounting bracket for Sensors series MLV41 for M12 rod mounting