



Background suppression sensor MLV12-8-H-100-RT/65b/124/128

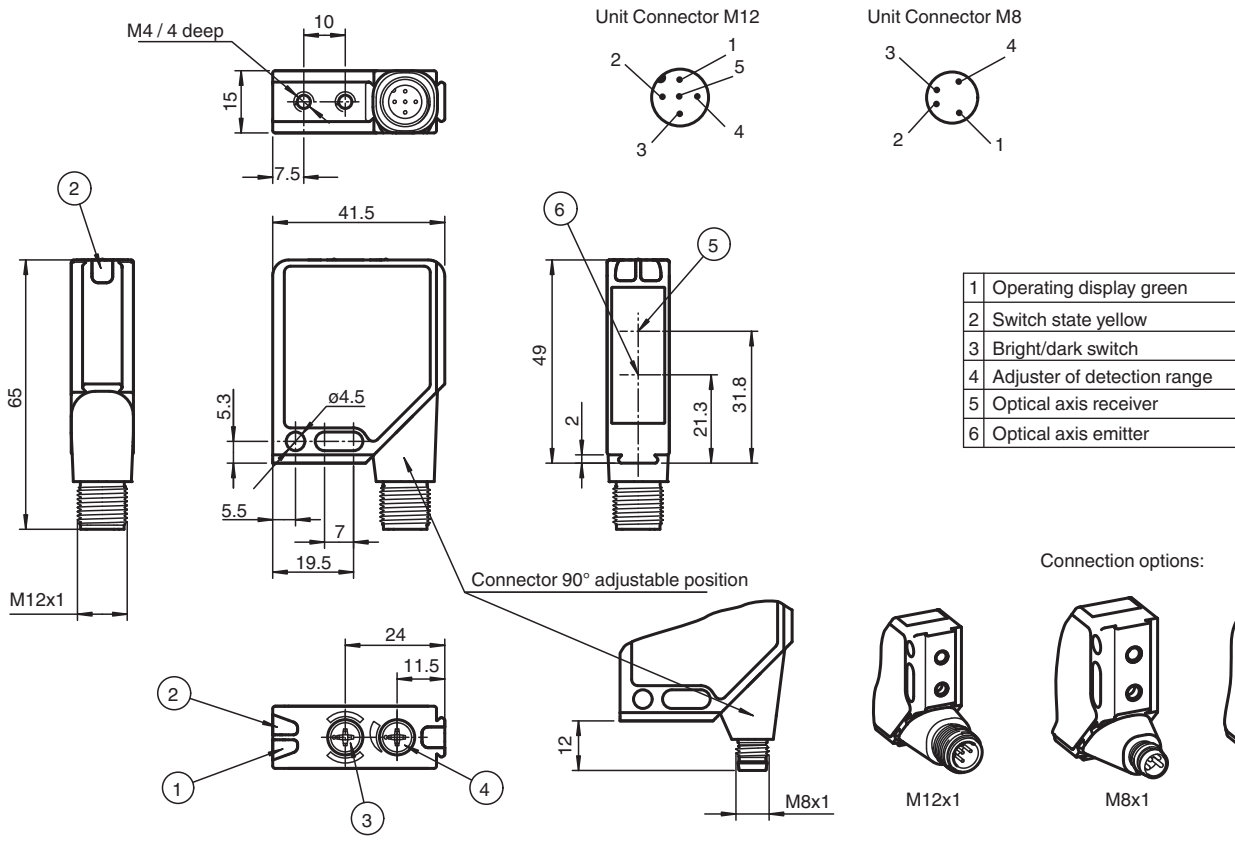


- Reliable detection of all surfaces, independent of color and structure
- Minimal black-white difference
- Ultra bright LEDs for power on and switching state
- Flashing power on LED in case of short-circuit
- Powerful push-pull output
- Not sensitive to ambient light, even with switched energy saving lamps
- Multiple device installation possible, no mutual interference (no cross-talk)
- Protection class II

Triangulation sensor with background suppression in a widely used standard housing, red light, 100 mm detection range, electrically adjustable, light/dark on, push-pull output, M12 plug



Dimensions



Technical Data

General specifications

Detection range	40 ... 100 mm , adjustable
Detection range min.	20 ... 40 mm
Detection range max.	20 ... 100 mm
Adjustment range	40 ... 100 mm
Light source	LED
Light type	modulated visible red light , 660 nm
Black-white difference (6 %/90 %)	10 % at 100 mm
Diameter of the light spot	3 mm at Tw 100 mm
Opening angle	1.5 °
Ambient light limit	
Continuous light	30000 Lux
Modulated light	5000 Lux

Functional safety related parameters

MTTF _d	650 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED green, flashes in case of short-circuit
Function indicator	2 LEDs yellow ON: object inside the scanning range OFF: object outside the scanning range
Control elements	potentiometer for light/dark, detection range adjustment

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I ₀	≤ 40 mA

Output

Switching type		light/dark on switchable
Signal output		1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected, 0.2 A / 30 V DC
Switching voltage		max. 30 V DC
Switching current		max. 0.2 A
Voltage drop	U _d	≤ 2.5 V DC
Switching frequency	f	500 Hz
Response time		1 ms

Conformity

Product standard	EN 60947-5-2
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Compliance with standards and directives

Standard conformity	
Shock and impact resistance	IEC / EN 60068. half-sine, 40 g in each X, Y and Z directions
Vibration resistance	IEC / EN 60068-2-6. Sinus. 10 -150 Hz, 5 g in each X, Y and Z directions

Approvals and certificates

EAC conformity	TR CU 020/2011
Protection class	II, rated voltage ≤ 300 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval	cULus
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

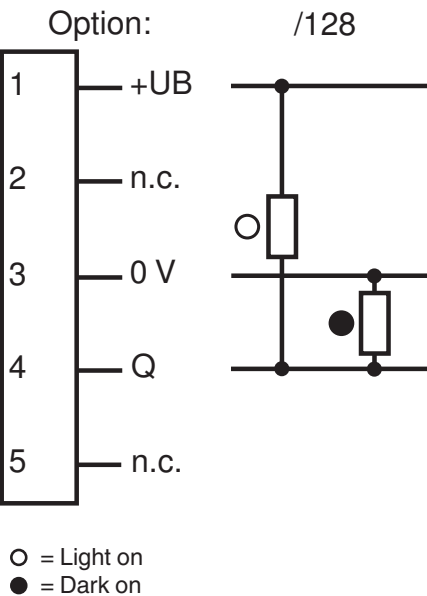
Housing width	41.5 mm
Housing height	49 mm
Housing depth	15 mm

Release date: 2022-02-07 Date of issue: 2022-02-07 Filename: 180805_eng.pdf

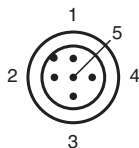
Technical Data

Degree of protection	IP67
Connection	Metal connector, M12, 5-pin, 90° rotatable
Material	
Housing	Frame: nickel plated, die cast zinc, Laterals: glass-fiber reinforced plastic PC
Optical face	Plastic pane
Mass	60 g

Connection Assignment



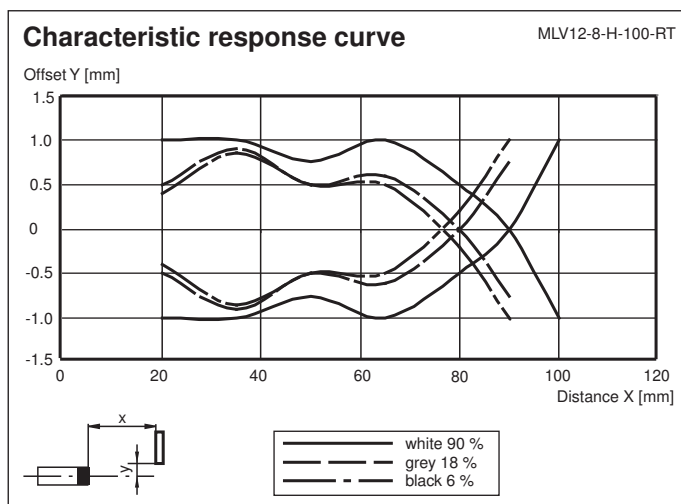
Connection Assignment



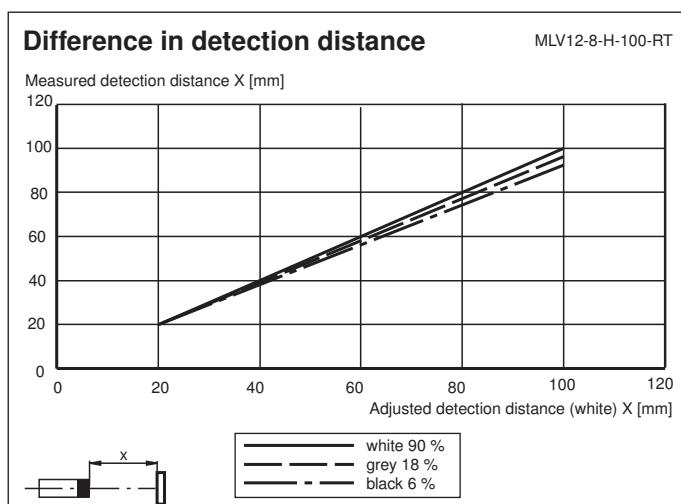
Wire colors in accordance with EN 60947-5-2

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

Characteristic Curve



Characteristic Curve



Accessories

	OMH-MLV12-HWG	Mounting bracket for series MLV12 sensors
	OMH-MLV12-HWK	Mounting bracket for series MLV12 sensors
	OMH-K01	dove tail mounting clamp
	OMH-K02	dove tail mounting clamp
	OMH-K03	dove tail mounting clamp
	OMH-06	Mounting aid for round steel $\varnothing$ 12 mm or sheet 1.5 mm ... 3 mm