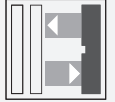




## Triangulation sensor (BGE)

### MLV12-8-HW-RT/47/65b/95

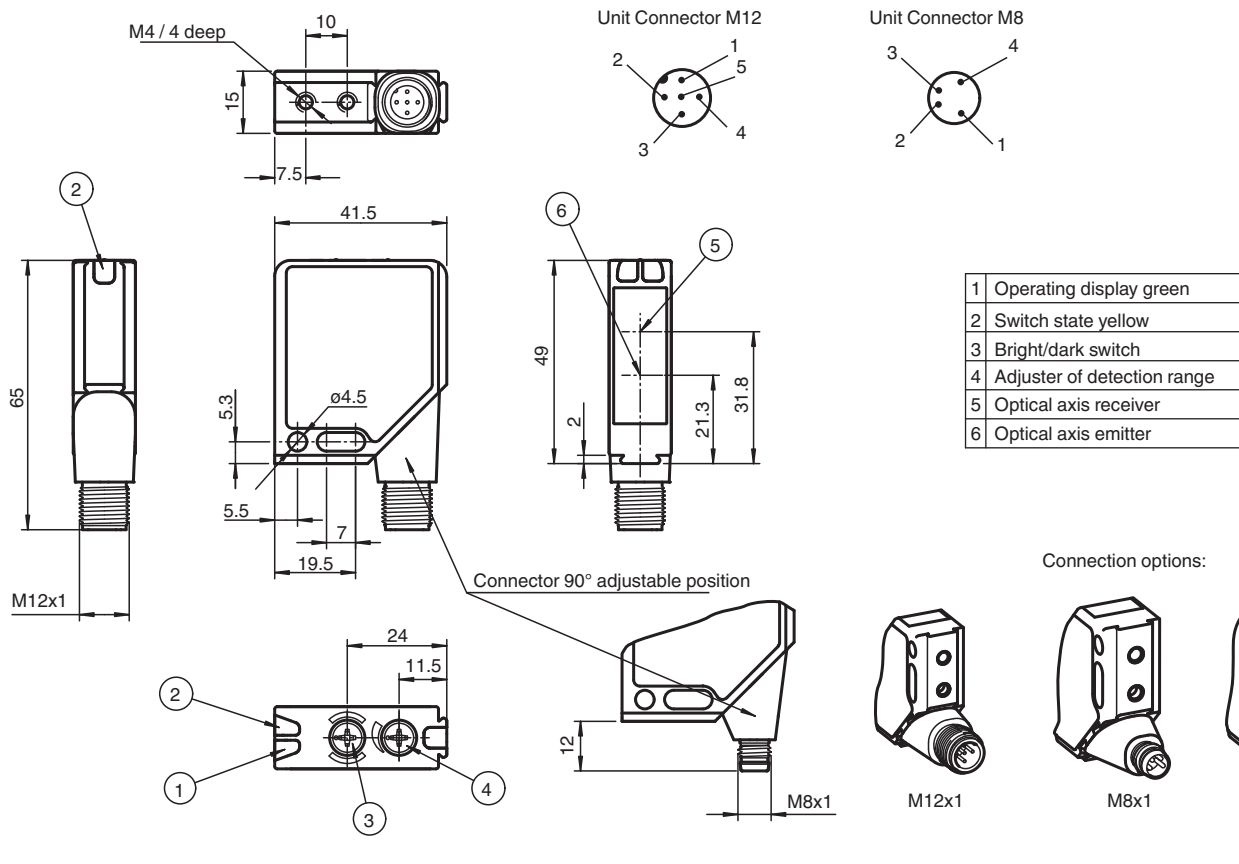


- Series of sensors in a widely used standard housing
- Reliable detection of all surfaces, independent of color and structure
- Minimal black-white difference
- High level of stability thanks to the metal housing frame
- Resistant against noise: reliable operation under all conditions

Diffuse mode sensor in a widely used standard housing, background evaluation, red light, 150 mm detection range, electrically adjustable, PNP outputs, M8 plug



## Dimensions



## Technical Data

### General specifications

Detection range	50 ... 150 mm , adjustable
Adjustment range	50 ... 150 mm
Light source	LED
Light type	modulated visible red light , 680 nm
Diameter of the light spot	4 mm at Tw 150 mm
Opening angle	1.5 °
Ambient light limit	
Continuous light	30000 Lux
Modulated light	5000 Lux

### Functional safety related parameters

MTTF <sub>d</sub>	650 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Indicators/operating means

Operation indicator	LED green, flashes in case of short-circuit
Function indicator	LED yellow ON: sensor detects background
Control elements	potentiometer for light/dark, detection range adjustment

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Ripple		max. 10 %
No-load supply current	I <sub>0</sub>	≤ 55 mA

### Output

Switching type	light/dark on switchable	
Signal output		2 PNP outputs, complementary, short-circuit protected, reverse polarity protected, open collector
Switching voltage	max. 30 V DC	
Switching current		max. 0.2 A
Voltage drop	U <sub>d</sub>	≤ 2.5 V DC
Switching frequency	f	1000 Hz
Response time	0.5 ms	

### Conformity

Product standard	EN 60947-5-2
------------------	--------------

### 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
Standards	UL 508

### Approvals and certificates

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

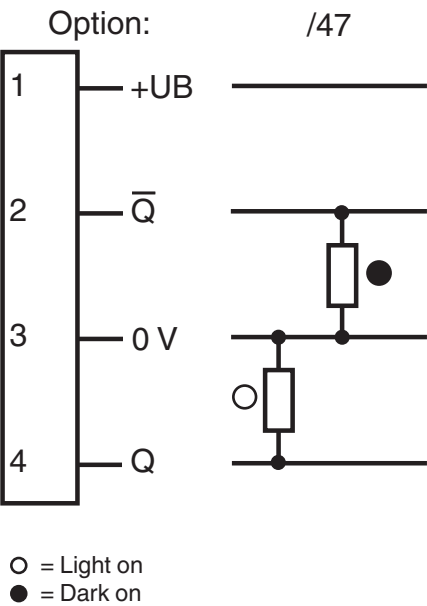
Housing width	41.5 mm
Housing height	49 mm
Housing depth	15 mm
Degree of protection	IP67
Connection	4-pin M8 metal connector, 90° rotatable
Material	
Housing	Frame: nickel plated, die cast zinc, Laterals: glass-fiber reinforced plastic PC
Optical face	Plastic pane

Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 121200\_eng.pdf

Technical Data

Mass	60 g
------	------

Connection Assignment



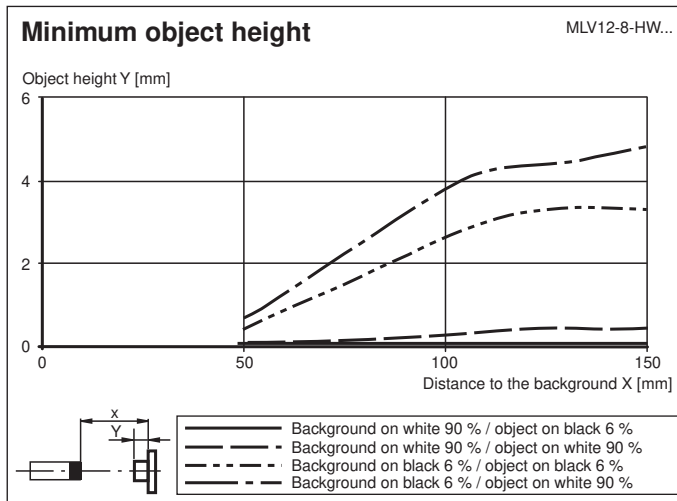
Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

## Characteristic Curve



## Commissioning

1. Mount sensor at a distance of 50 mm to 150 mm to the background.
2. Set the detection range in such a way that the yellow LEDs just switch.
3. Place the object and move between background and sensor. The yellow LEDs must extinguish.

### Notes

Preferably the background should be light or white.  
Object should move transversely to the sensor.  
The background should not vary in height.

## Accessories

	<b>OMH-MLV12-HWG</b>	Mounting bracket for series MLV12 sensors
	<b>OMH-MLV12-HWK</b>	Mounting bracket for series MLV12 sensors
	<b>OMH-K01</b>	dove tail mounting clamp
	<b>OMH-K02</b>	dove tail mounting clamp
	<b>OMH-K03</b>	dove tail mounting clamp
	<b>OMH-06</b>	Mounting aid for round steel $\varnothing$ 12 mm or sheet 1.5 mm ... 3 mm
	<b>V31-WM-2M-PUR</b>	Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable grey
	<b>V31-GM-2M-PUR</b>	Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable grey