



**Model Number**

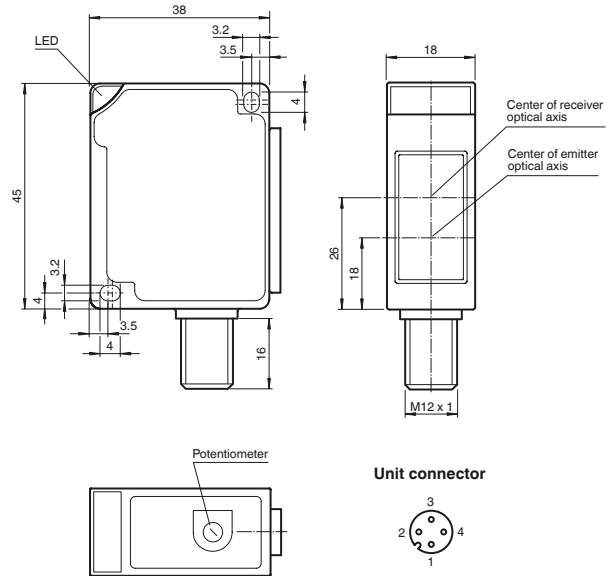
**MLV13-8-400/32/40b/73c**

Diffuse mode sensor  
with 4-pin, M12 connector

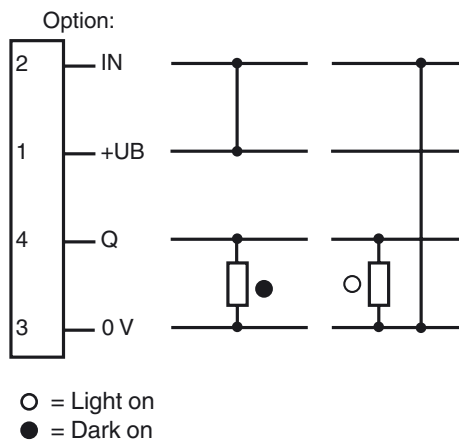
**Features**

- Visible red light
- Pre-fault indication
- Control input for light/dark switching
- Degree of protection IP67

**Dimensions**



**Electrical connection**



Release date: 2019-11-26 15:11 Date of issue: 2019-11-26 088782\_eng.xml

## Technical data

### General specifications

Detection range	5 ... 400 mm , adjustable
Reference target	standard white, 100 mm x 100 mm
Light source	LED
Light type	modulated visible red light
Ambient light limit	10000 Lux

### Indicators/operating means

Function indicator	switching state: LED yellow pre-fault indicator: LED red
Control elements	sensitivity adjustment

### Electrical specifications

Operating voltage	$U_B$	10 ... 30 V DC
Ripple		10 %
No-load supply current	$I_0$	$\leq 25$ mA
Time delay before availability	$t_v$	$\leq 30$ ms

### Input

Control input	light on +UB dark on: 0 V
---------------	------------------------------

### Output

Switching type	light/dark on	
Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 200 mA	
Voltage drop	$U_d$	$\leq 2.5$ V DC
Switching frequency	$f$	$\leq 500$ Hz
Response time		$\leq 1$ ms

### Conformity

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

### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

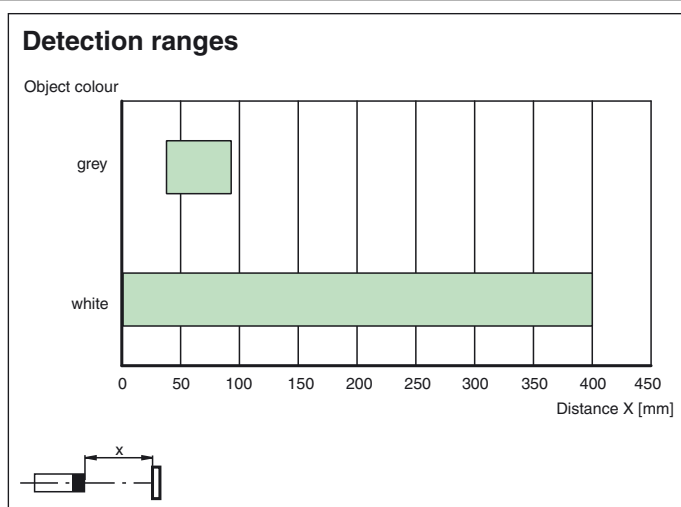
### Mechanical specifications

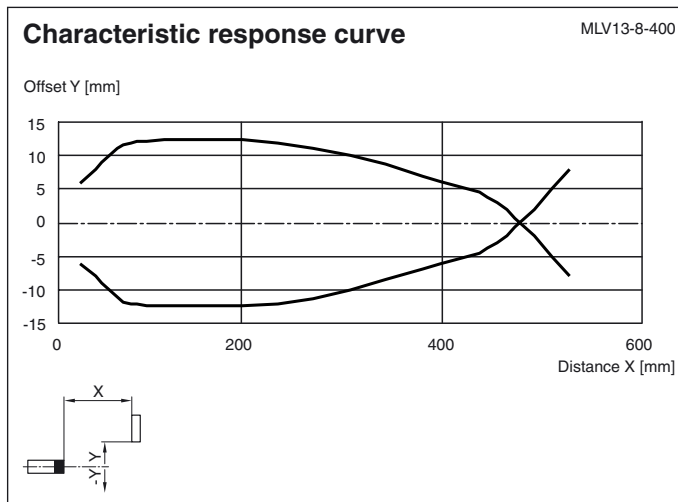
Housing width	18 mm
Housing height	45 mm
Housing depth	38 mm
Degree of protection	IP67
Connection	M12 connector, 4-pin
Material	
Housing	ABS
Optical face	scratch resistant plastic lens
Mass	40 g

### Approvals and certificates

CCC approval	CCC approval / marking not required for products rated $\leq 36$ V
Approvals	CE

## Curves/Diagrams





## Additional Information

### Conventional use:

The reflex light scanner contains the emitter and receiver in a single housing. The light from transmitter is beamed back from the recorded object is evaluated by the receiver. The detection range depend on the object colour. With dark or very small objects the detection range reduces.

### Mounting instructions:

The sensor can be fastened over the through-holes directly or with the included mounting bracket. The base surface must be flat to avoid distorting the housing during mounting. It is advisable to secure the bolts and screws with washers so that the sensor does not become misaligned.

### Instructions for adjustment:

Adjust the sensor on the background. If the yellow LED illuminates, the detection range needs to be reduced with the detection range adjuster, until the yellow LED goes off.

### Object detection check:

Position the object into the light beam. Position light spot on object. If the object is detected, the yellow LED illuminated. If it does not light up, further to adjust the detection range with the potentiometer, until the yellow LED lights up. The red LED flashes if reception deteriorates (e.g. soiled lenses or by maladjustment) and when falling short of the stability control.

### Illustration:

We recommend that you clean the optical interfaces and check the plug-in connections and screw connections at regular intervals.