

**MLV13-8-400/32/40b/115**

**Diffuse mode sensor**

# **MLV13-8-400/32/40b/115**

**with 2 m fixed cable**

CE



- ◆ **Visible red light**
- ◆ **Pre-fault indication**
- ◆ **Control input for light-/dark switching**
- ◆ **Protection degree IP67**

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## General specifications

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

## Indicators/operating means

|                    |                                                             |
|--------------------|-------------------------------------------------------------|
| Function display   | switching state: LED yellow<br>pre-fault indicator: LED red |
| Operating elements | sensitivity adjuster                                        |

## Electrical specifications

|                                      |                |
|--------------------------------------|----------------|
| Operating voltage                    | 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<br>Dark ON: 0 V |
|---------------|-------------------------------|

## Output

|                         |                                                                                    |
|-------------------------|------------------------------------------------------------------------------------|
| Switching type          | light/dark switching                                                               |
| Signal output           | 1 PNP output, short-circuit proof, protected from reverse polarity, 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                                                                        |

## Standard conformity

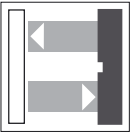
|           |              |
|-----------|--------------|
| Standards | EN 60947-5-2 |
|-----------|--------------|

## Ambient conditions

|                     |                               |
|---------------------|-------------------------------|
| Ambient temperature | -25 ... 70 °C (248 ... 343 K) |
| Storage temperature | -40 ... 70 °C (233 ... 343 K) |

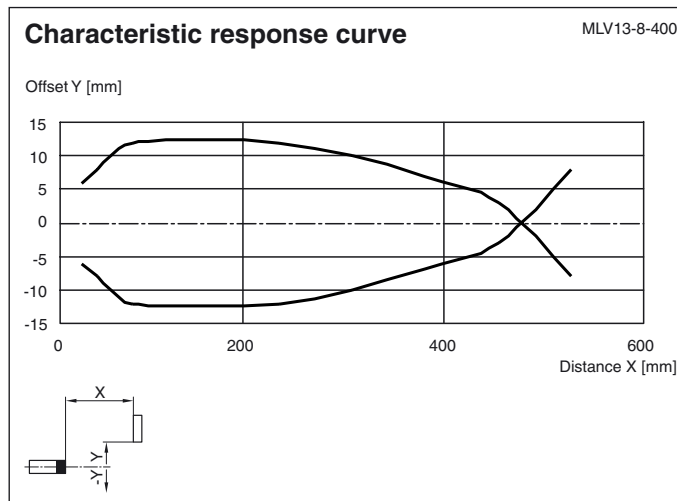
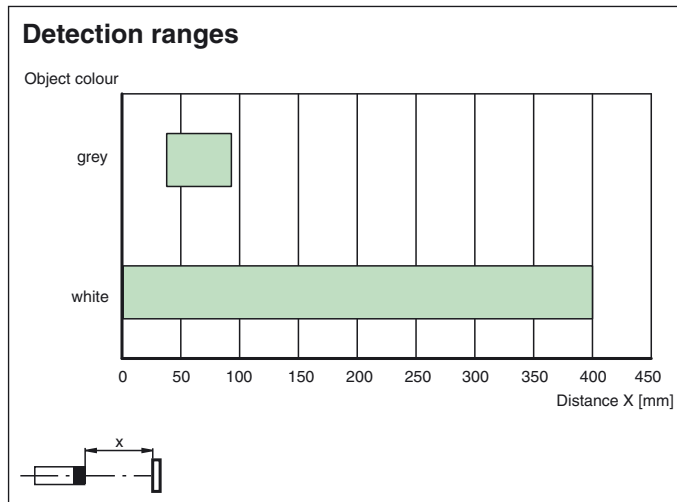
## Mechanical specifications

|                   |                                |
|-------------------|--------------------------------|
| Protection degree | IP67                           |
| Connection        | fixed cable 2 m                |
| Material          |                                |
| Housing           | ABS                            |
| Optical face      | scratch resistant plastic pane |
| Mass              | 40 g                           |

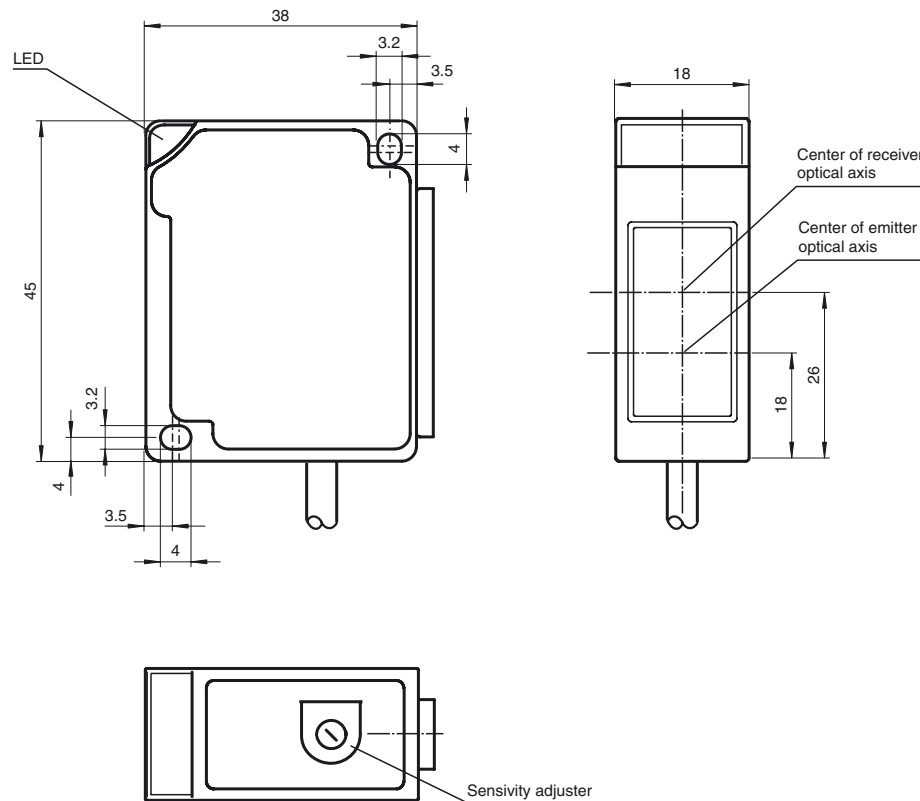


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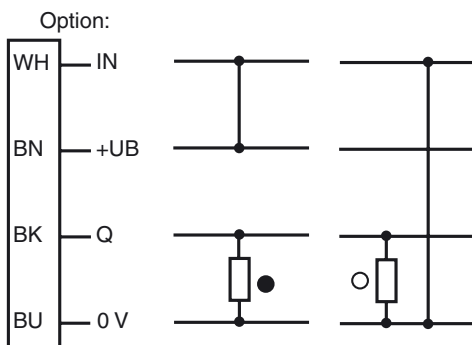
### Curves/Diagrams



## Dimensions



## Electrical connection



### 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.