



**Model Number**

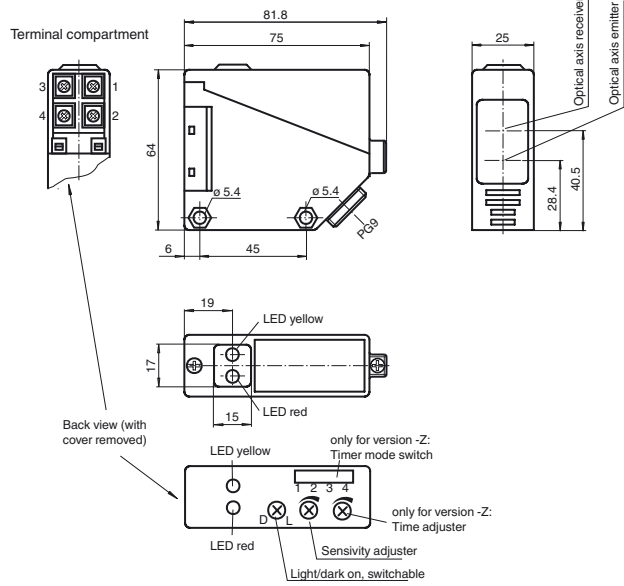
**RL39-8-800/32/40a/82a/116**

Diffuse mode sensor  
with terminal compartment

**Features**

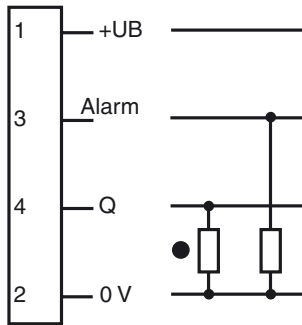
- Infrared light
- Light/dark ON, switchable
- Protection degree IP67

**Dimensions**



**Electrical connection**

Option: 32/40a/82a/116



- = Light on
- = Dark on

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**Technical data****General specifications**

|                     |                                |
|---------------------|--------------------------------|
| Detection range     | 0 ... 800 mm                   |
| Adjustment range    | 65 ... 800 mm                  |
| Reference target    | standard white 200 mm x 200 mm |
| Light source        | IREL                           |
| Light type          | modulated infrared light       |
| Approvals           | CE                             |
| Ambient light limit | 10000 Lux                      |

**Indicators/operating means**

|                  |  |
|------------------|--|
| Function display | LED yellow: switching state<br>LED red: pre-fault indication |
| Controls         | Detection range adjuster, light/dark switch                  |

**Electrical specifications**

|                                |       |                |
|--------------------------------|-------|----------------|
| Operating voltage              | $U_B$ | 10 ... 30 V DC |
| Ripple                         |       | 10 %           |
| No-load supply current         | $I_0$ | $\leq 35$ mA   |
| Time delay before availability | $t_v$ | $\leq 50$ ms   |

**Output**

|                                    |  |               |
|------------------------------------|--|---------------|
| Output of the pre-fault indication | 1 PNP, active when falling short of the stability control                              |               |
| Switching type                     | light/dark on  |               |
| Signal output                      | 1 PNP output, short-circuit protected, protected from reverse polarity, open collector |               |
| Switching voltage                  | max. 30 V DC   |               |
| Switching current                  | max. 200 mA  |               |
| Voltage drop                       | $U_d$  | $\leq 3$ V    |
| Switching frequency                | $f$  | $\leq 300$ Hz |
| Response time                      |  | $\leq 1.5$ ms |

**Standard conformity**

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

**Ambient conditions**

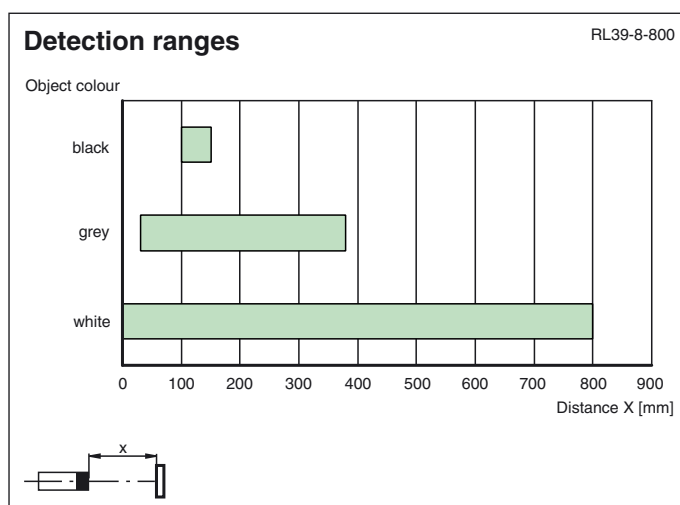
|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 55 °C (-13 ... 131 °F) |
| Storage temperature | -40 ... 55 °C (-40 ... 131 °F) |

**Mechanical specifications**

|                   |  |
|-------------------|--|
| Protection degree | IP67   |
| Connection        | terminal compartment PG9, $\leq 2.5$ mm <sup>2</sup> |
| Material          |  |
| Housing           | PBT  |
| Optical face      | PMMA   |
| Mass              | 100 g  |

**Approvals and certificates**

|              |  |
|--------------|--|
| CCC approval | Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval. |
|--------------|--|

**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.