



Model Number

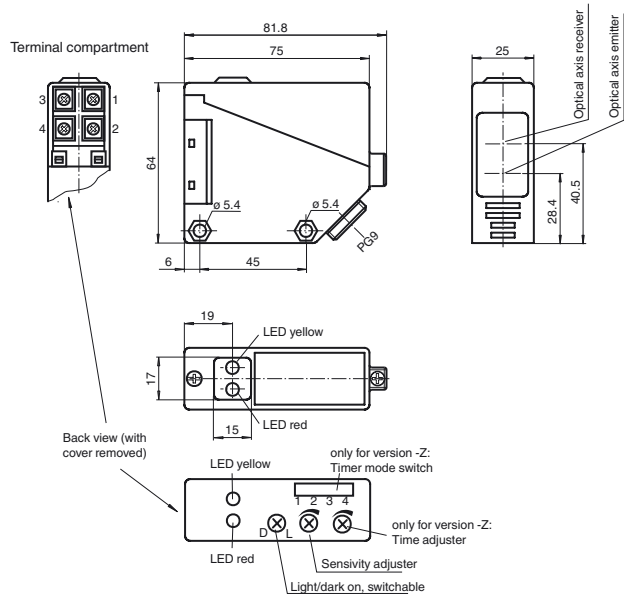
RL39-55/32/35/40a/82a/116

Retroreflective sensor
with terminal compartment

Features

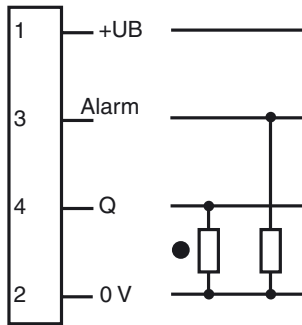
- Visible red light
- Light/dark ON, switchable
- Protection degree IP67

Dimensions



Electrical connection

Option: 32/40a/82a/116



- = Light on
- = Dark on

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Subject to modifications without notice

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Technical data**General specifications**

| | |
|---------------------------|-----------------------------|
| Effective detection range | 0 ... 20 m |
| Reflector distance | 3 ... 20 m |
| Threshold detection range | 25 m |
| Reference target | H85 reflector |
| Light source | LED |
| Light type | modulated visible red light |
| Approvals | CE |
| Ambient light limit | 10000 Lux |

Indicators/operating means

| | |
|------------------|--|
| Function display | LED yellow: switching state LED red: pre-fault indication |
| Controls | sensitivity adjustment |
| Controls | Light/Dark switch |

Electrical specifications

| | | |
|--------------------------------|-------|----------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Ripple | | 10 % |
| No-load supply current | I_0 | ≤ 55 mA |
| Time delay before availability | t_v | ≤ 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 | ≤ 3 V |
| Switching frequency | f | ≤ 300 Hz |
| Response time | | ≤ 1.5 ms |

Standard conformity

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

Ambient conditions

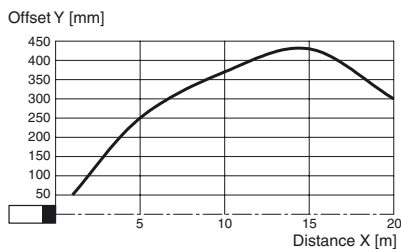
| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 55 °C (-13 ... 131 °F) |
| Storage temperature | -40 ... 55 °C (-40 ... 131 °F) |

Mechanical specifications

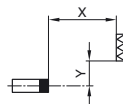
| | |
|-------------------|--|
| Protection degree | IP67 |
| Connection | terminal compartment PG9, ≤ 2.5 mm ² |
| Material | |
| Housing | PBT |
| Optical face | PMMA |
| Mass | 100 g |

Approvals and certificates

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

Curves/Diagrams**Characteristic response curve**

Permissible distance (offset) between optical axis and retro-reflector.

**Additional Information****Conventional use:**

The reflex light beam switch contains the emitter and receiver in a single housing. The light from transmitter is beamed back from a reflector to the receiver. If an object interrupts the light beam the switching function is initiated.

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 to prevent misalignment of the sensor.

Instructions for adjustment:

Connect the sensor to operating voltage, the LED green lights up constantly. Mount suitable reflector opposite light beam switch and align roughly. The exact adjustment takes by swivelling the sensor horizontally and vertically. With optimum light reception the yellow LED lights up constantly. In case of bad alignment, the red LED lights up.

Object detection check:

Move the object into the light beam. If the object is recorded, the yellow LED goes off. If it isn't going off, reduce the sensitivity with the potentiometer until it goes off. It should light up constantly again when the object is removed. The red LED lights up 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.