



Model Number

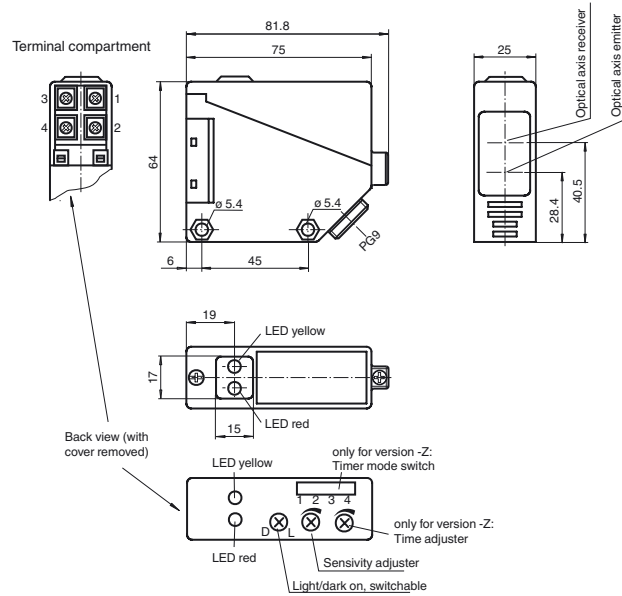
RL39-8-2000/30/40a/116/126a

Diffuse mode sensor
with terminal compartment

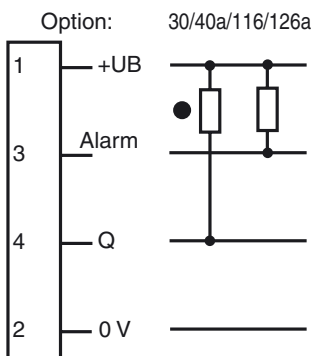
Features

- Infrared light
- Light/dark ON, switchable
- Degree of protection IP67

Dimensions



Electrical connection



○ = Light on
● = Dark on

Technical data

General specifications

| | |
|---------------------|--------------------------------|
| Detection range | 0 ... 2000 mm |
| Adjustment range | 200 ... 2000 mm |
| Reference target | standard white 200 mm x 200 mm |
| Light source | IRED |
| Light type | modulated infrared light |
| Ambient light limit | IEC / EN 60947-5-2 , 10000 Lux |

Functional safety related parameters

| | |
|--------------------------------|-------|
| MTTF _d | 800 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Indicators/operating means

| | |
|--------------------|--|
| Function indicator | LED yellow: switching state LED red: pre-fault indication |
| Control elements | Sensing range adjuster, light-on/dark-on changeover switch |

Electrical specifications

| | | |
|--------------------------------|----------------|----------------|
| Operating voltage | U _B | 10 ... 30 V DC |
| Ripple | | 10 % |
| No-load supply current | I ₀ | ≤ 20 mA |
| Time delay before availability | t _v | ≤ 300 ms |

Output

| | |
|-----------------------------|---|
| Pre-fault indication output | 1 NPN, active when falling short of the stability control |
| Switching type | light/dark on |
| Signal output | 1 NPN output, short-circuit protected, reverse polarity protected, open collector |
| Switching voltage | max. 30 V DC |
| Switching current | max. 200 mA , resistive load |
| Voltage drop | U _d ≤ 3 V |
| Switching frequency | f ≤ 300 Hz |
| Response time | ≤ 1.5 ms |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 55 °C (-13 ... 131 °F) |
| Storage temperature | -40 ... 70 °C (-40 ... 158 °F) |

Mechanical specifications

| | |
|----------------------|---|
| Housing width | 25 mm |
| Housing height | 64 mm |
| Housing depth | 75 mm |
| Degree of protection | IP67 |
| Connection | terminal compartment PG9, ≤ 2.5 mm ² |
| Material | |
| Housing | PBT |
| Optical face | PMMA |
| Mass | approx. 100 g |

General information

| | |
|-------------------|--------------|
| Scope of delivery | Mounting aid |
|-------------------|--------------|

Compliance with standards and directives

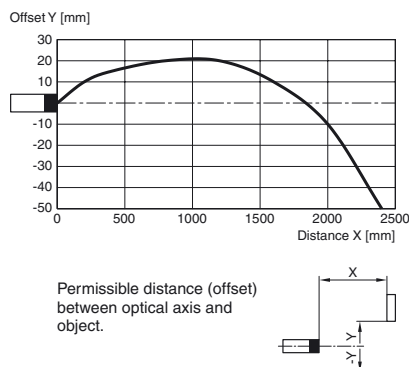
| | |
|---------------------------|--|
| Directive conformity | EMC Directive 2004/108/EC |
| EMC Directive 2004/108/EC | EN 60947-5-2:2007+A1:2012 IEC 60947-5-2:2007+A1:2012 |
| Standard conformity | |
| Product standard | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| CCC approval | CCC approval / marking not required for products rated ≤36 V |
| Approvals | CE |

Curves/Diagrams

Characteristic response curve



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.

Iustration:

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