



Model Number

RL91-6-IR/25/49/115

Retroreflective sensor
with 5 m fixed cable

Features

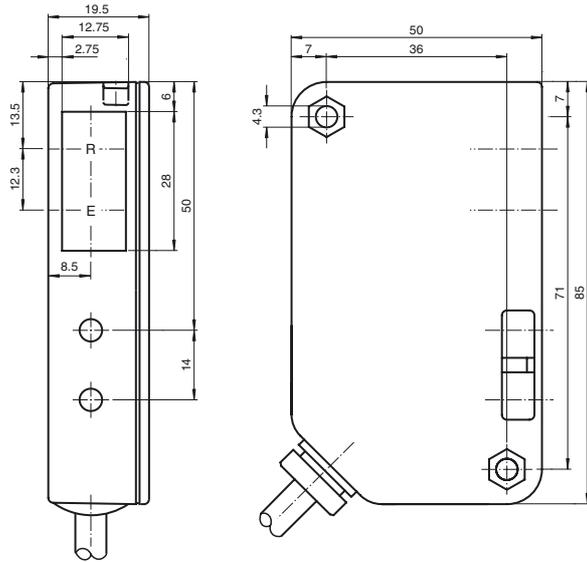
- Retroreflective sensor for single-beam closing edge protection
- Narrow housing suitable for small gaps
- Sturdy plastic housing
- Various possibilities for mounting
- Version with infrared light
- Version for supply voltage of up to 30 V DC
- Light on version

Product information

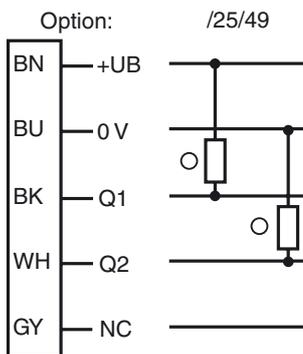
Concentration on the essentials is the hallmark of the 91 series. As ac/dc supply devices, these economical, reliable and easy-to-use photoelectric sensors can be used almost universally. Their narrow design means that they can be used in any environment.

The single-beam photoelectric sensors of the 91 series are suitable for closing-edge monitoring for elevators, barriers and doors, as well as for object detection and object tracking in material handling systems.

Dimensions

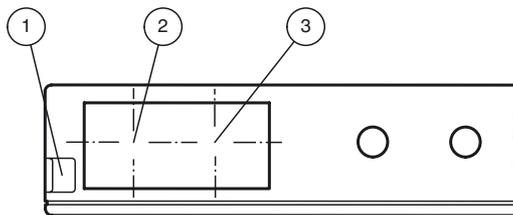


Electrical connection



○ = Light on
● = Dark on

Indicators/operating means



| | | |
|---|--------------------------|-----|
| 1 | Functional display | red |
| 2 | Optical axis Receiver | |
| 3 | Optical axis Transmitter | |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Technical data

General specifications

| | |
|----------------------------|---|
| Effective detection range | 0 ... 6 m |
| Reflector distance | 0 ... 6 m |
| Threshold detection range | 9 m |
| Reference target | H85-2 reflector |
| Light source | LED |
| Light type | modulated infrared light |
| Diameter of the light spot | approx. 230 mm at a distance of 6000 mm |
| Angle of divergence | approx. 2.5 ° |
| Ambient light limit | 90000 Lux |

Functional safety related parameters

| | |
|-------------------|----------|
| MTTF _d | 1083.4 a |
|-------------------|----------|

Indicators/operating means

| | |
|--------------------|--|
| Function indicator | LED red, flashes when falling short of the stability control |
|--------------------|--|

Electrical specifications

| | | |
|------------------------|----------------|----------------|
| Operating voltage | U _B | 12 ... 30 V DC |
| No-load supply current | I ₀ | < 100 mA |

Output

| | | |
|---------------------|--|-------|
| Switching type | light on | |
| Signal output | 1 NPN, 1 PNP synchronized-switching, short-circuit protected, reverse polarity protected | |
| Switching voltage | max. 30 V DC | |
| Switching current | 200 mA | |
| Switching frequency | f | 25 Hz |
| Response time | 20 ms | |

Conformity

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

Ambient conditions

| | |
|---------------------|-------------------------------|
| Ambient temperature | -20 ... 55 °C (-4 ... 131 °F) |
| Storage temperature | -20 ... 75 °C (-4 ... 167 °F) |

Mechanical specifications

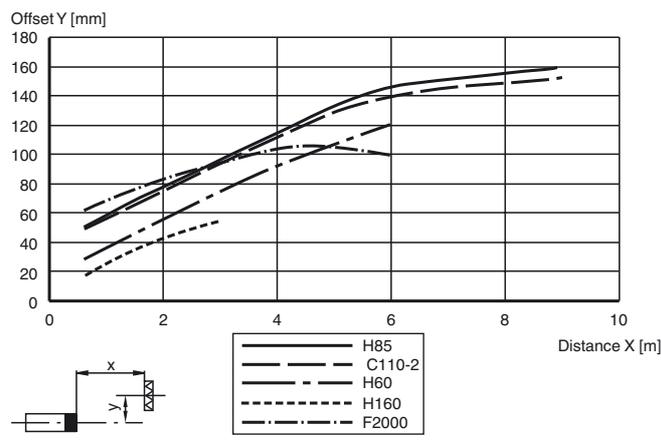
| | |
|----------------------|-----------------|
| Degree of protection | IP65 |
| Connection | 5 m fixed cable |
| Material | |
| Housing | Luran® |
| Optical face | Luran® |
| Mass | 100 g |

Approvals and certificates

| | |
|--------------|---|
| UL approval | cULus For overcurrent protection, install a fuse with a rated current of max. 5 A and min. 30 V DC |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

Curves/Diagrams

Characteristic response curve



Typical applications

- Closing-edge monitoring for elevators, barriers and industrial doors
- Detecting and tracking objects in material handling

Detection area

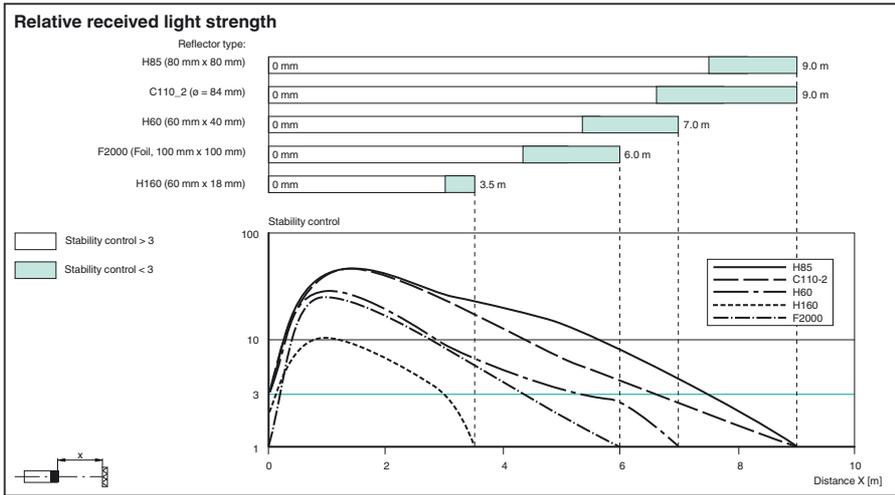


Accessories

OMH-91

Mounting bracket

Other suitable accessories can be found at www.pepperl-fuchs.com



Operating principle

The retroreflective sensor contains the transmitter 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.