

Model Number

RLK91-6-IR/25/31/115

Retroreflective sensor
with 5 m fixed cable

Features

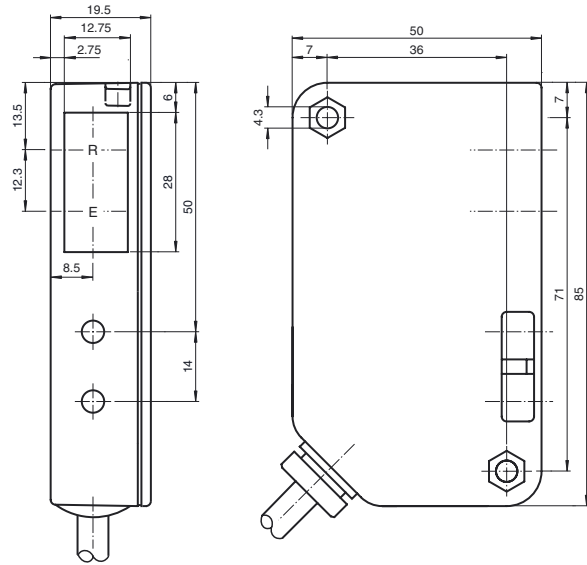
- Retroreflective sensor for single-beam closing edge protection
- Narrow housing suitable for small gaps
- Sturdy plastic housing
- Various possibilities for mounting
- Version with infrared light
- Version with AC/DC power supply

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.

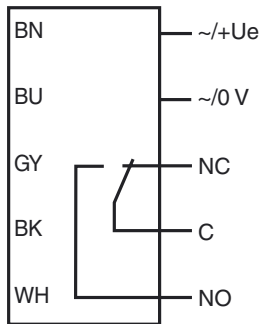
The single-beam photoelectric sensors of the 91 series are suitable for closing-edge monitoring for elevators, barriers and doors, as well as for object detection and object tracking in material handling systems.

Dimensions

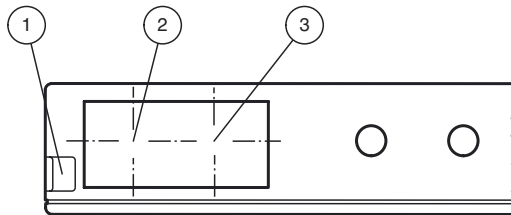


Electrical connection

Option:



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".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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

| | | |
|-------------------------|----------------|--|
| Rated operating voltage | U _e | 96 ... 240 V AC |
| Power consumption | P ₀ | 12 VA |
| Contact ratings | | according to UL 508 1/8 HP, 1.9 FLA, 240 V AC, Pilot Duty Code D150 6,000 1.5 FLA, 120 V AC, Pilot Duty 30,000 0.8 FLA, 240 V AC, Pilot Duty 30,000 |

Output

| | | |
|---------------------|----------------------------------|-------|
| Switching type | light on | |
| Signal output | Weak current relay, 1 alternator | |
| Switching voltage | max. 240 V AC | |
| Switching current | 2.5 A / 240 V AC | |
| Switching power | max. 120 W / 600 VA | |
| Switching frequency | f | 25 Hz |
| Response time | 20 ms | |

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 |

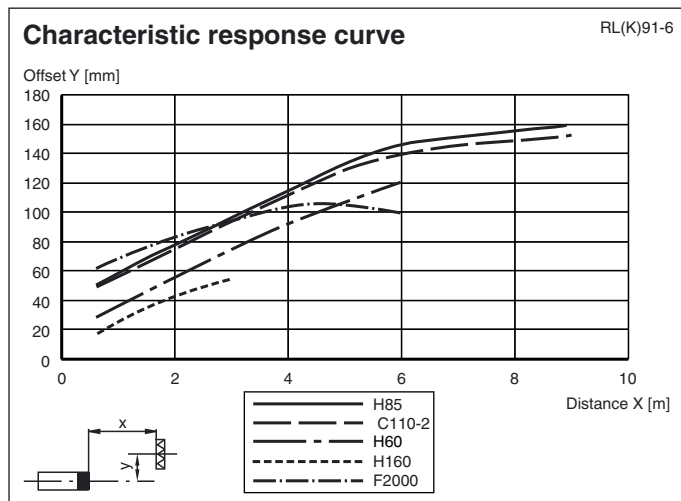
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Product standard | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|---|
| UL approval | cULus |
| CCC approval | Certified by China Compulsory Certification (CCC) |

Curves/Diagrams



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

REF-H50

Reflector, rectangular 51 mm x 51 mm, mounting holes, fixing strap

REF-H60-2

Reflector with mounting holes

REF-H85-2

Reflector, rectangular 84.5 mm x 84.5 mm, mounting holes

REF-H160

Reflector, rectangular 60 mm x 18 mm, mounting holes

REF-H180

Reflector, rectangular 180 mm x 40 mm, mounting holes

REF-C110-2

Reflector, round ø 84 mm, central mounting hole

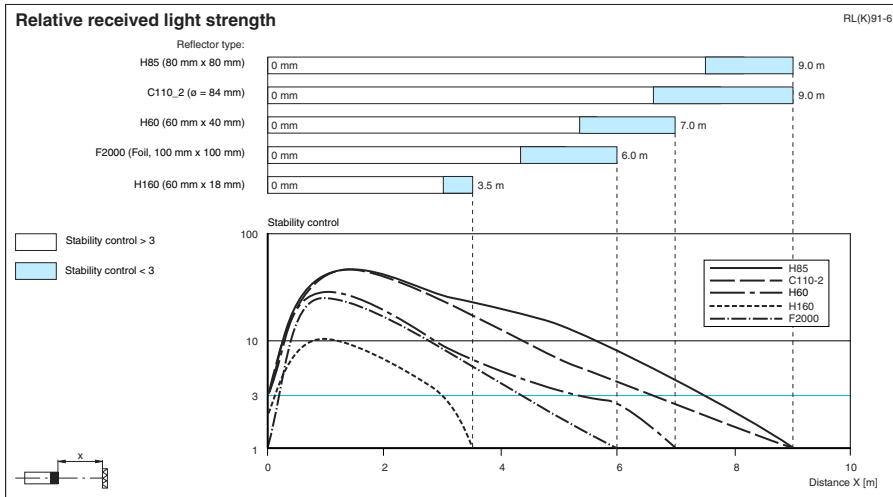
OFR-100/100

Reflective tape 100 mm x 100 mm

Reflector Weather Cap

Weather hood for series reflector

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.