



Retroreflective sensor RL91-6-IR/25/38a/115



- 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

Mid-range photoelectric sensors for detecting people, objects, and vehicles



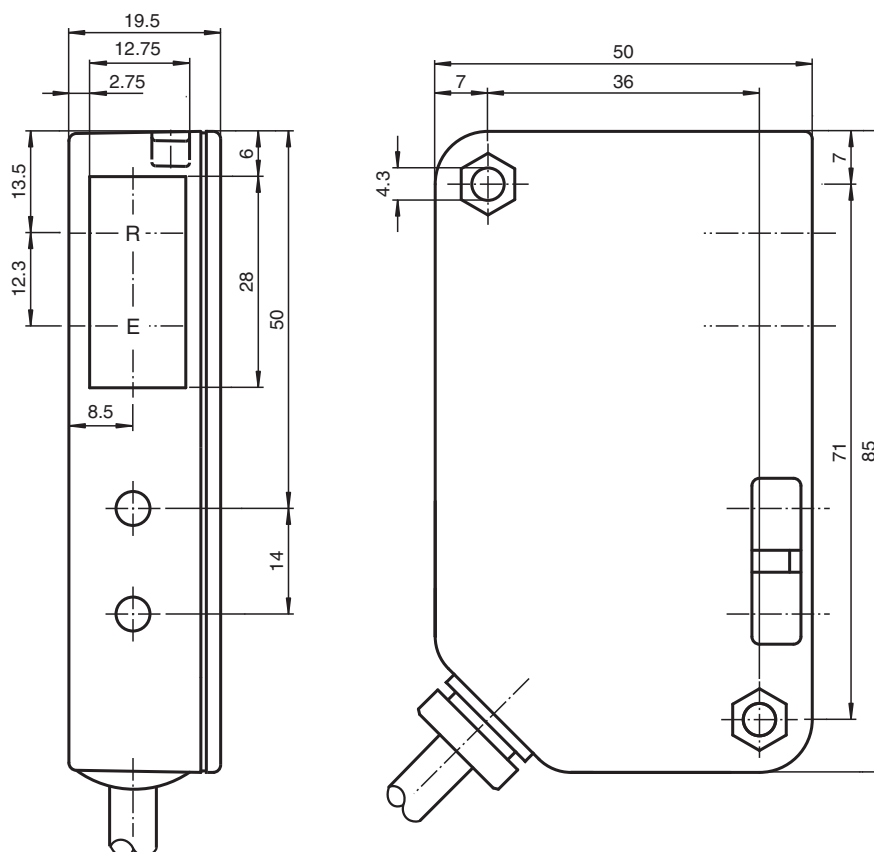
Function

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.

Application

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

Dimensions



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 |
| Opening angle | 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 operating reserve |
|--------------------|--|

Electrical specifications

| | | |
|------------------------|----------------|---------------------------------|
| Operating voltage | U _B | 12 ... 30 V DC / 18 ... 28 V AC |
| No-load supply current | I ₀ | < 100 mA |

Output

| | |
|-------------------|----------------------------------|
| Switching type | light-on |
| Signal output | Weak current relay, 1 alternator |
| Switching voltage | ≤ 55 V AC / 24 V DC |
| Switching current | 1 A / 24 V DC, 0.5 A / 110 V AC |

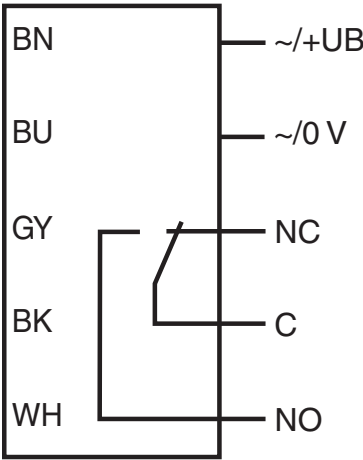
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Technical Data

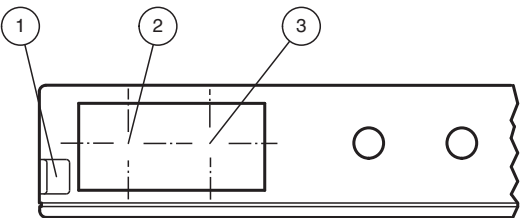
| | | |
|-----------------------------------|---|---|
| Switching power | | max. 24 W / 55 VA |
| Switching frequency | f | 25 Hz |
| Response time | | 20 ms |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Approvals and certificates | | |
| UL approval | | cULus For overcurrent protection, install a fuse with a rated current of max. 5 A and min. 55 V AC |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| 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 |
| Note | | Safety fuse ≤ 315 mA (slow-blow) according to IEC 60127-2 Sheet 1 Recommendation: after a short circuit, check that the device is functioning correctly. |

Connection Assignment

Option:



Assembly

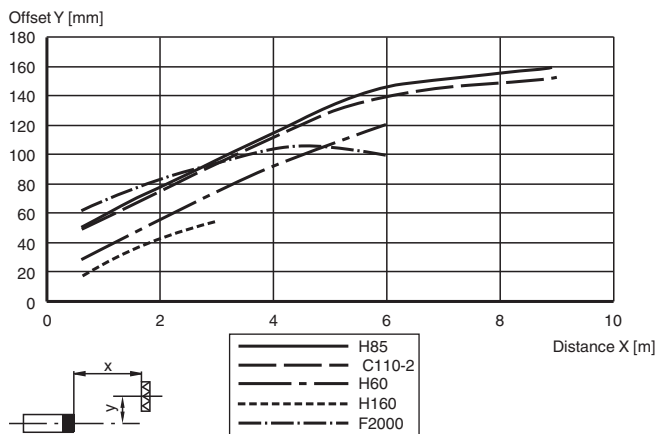


| | | |
|---|--------------------------|-----|
| 1 | Functional display | red |
| 2 | Optical axis Receiver | |
| 3 | Optical axis Transmitter | |

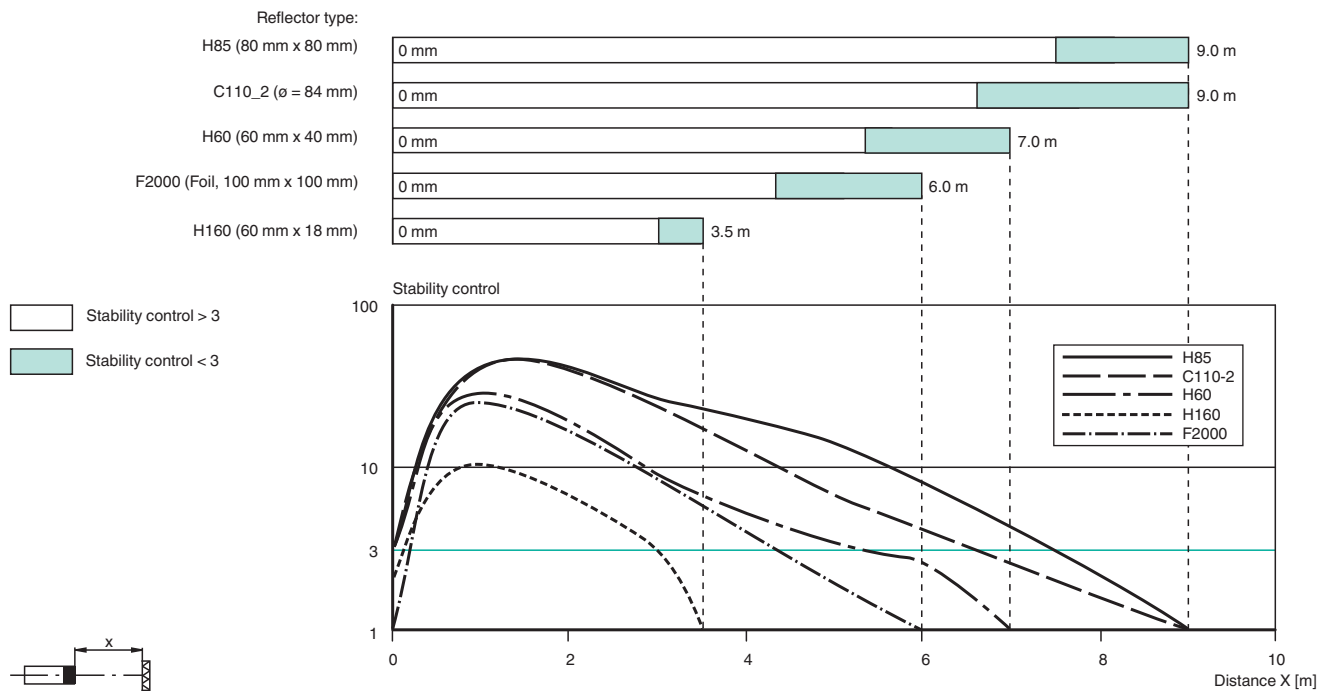
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Characteristic Curve

Characteristic response curve



Relative received light strength



Accessories

| | | |
|---|--------|------------------|
|  | OMH-91 | Mounting bracket |
|---|--------|------------------|

System Description

System Description

The retro-reflective sensor contains both an emitter and a receiver in a single housing. A reflector reflects the light from emitter back to the receiver. If an object interrupts the light beam, the switching function is initiated.

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

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