



Background suppression sensor

RL23-8-H-1000-IR/116/125

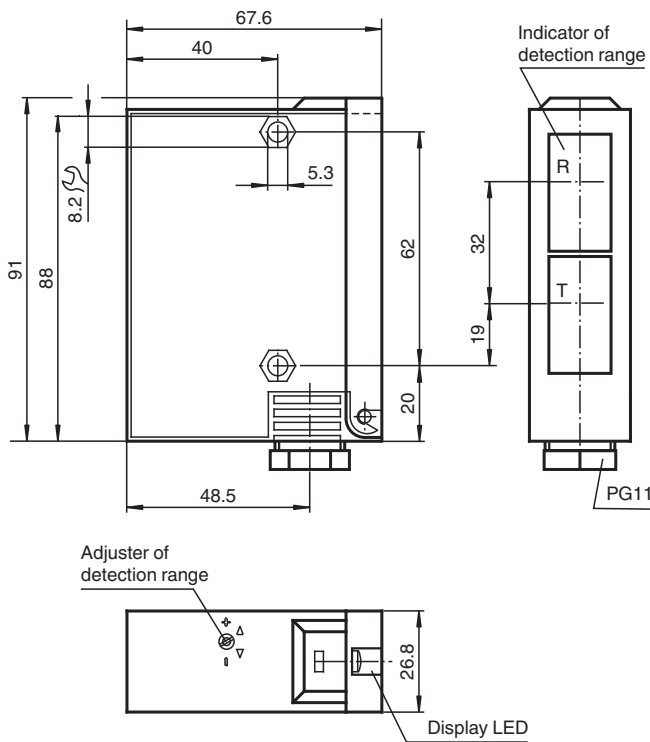


- Adjustable background suppression
- Infrared light
- Sturdy plastic housing
- Optical surface made of scratch-resistant glass

Background suppression sensor

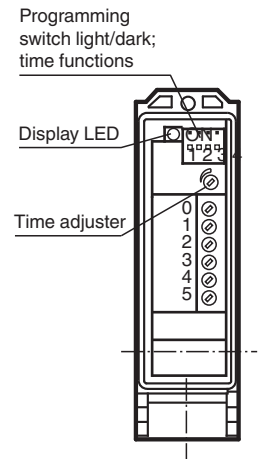
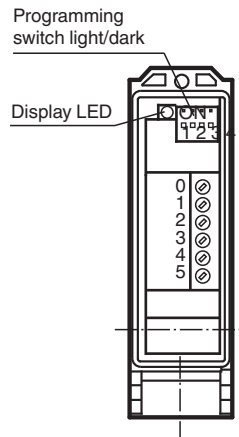


Dimensions



Terminal compartment
RL23-8-H-1000
RLK23-8-H-1000

Terminal compartment
RL23-8-H-2000
RLK23-8-H-2000



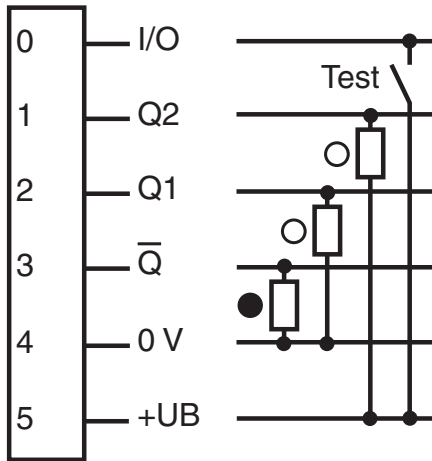
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Technical Data

| General specifications | | |
|--------------------------------------|----------------|---|
| Detection range | | 50 ... 1000 mm |
| Detection range min. | | 50 ... 150 mm |
| Detection range max. | | 50 ... 1000 mm |
| Light source | | IREL |
| Light type | | modulated infrared light |
| Black-white difference (6 %/90 %) | | < 10 % |
| Diameter of the light spot | | 25 mm at 1000 mm sensor range |
| Opening angle | | 1.5 ° |
| Ambient light limit | | 12000 Lux |
| Functional safety related parameters | | |
| MTTF _d | | 540 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 60 % |
| Indicators/operating means | | |
| Function indicator | | LED yellow, lights up with receiver lit |
| Control elements | | Programming switch for light/dark switching |
| Control elements | | Sensing range adjuster |
| Electrical specifications | | |
| Operating voltage | U _B | 10 ... 30 V DC |
| Ripple | | 10 % |
| No-load supply current | I ₀ | 100 mA |
| Input | | |
| Test input | | emitter deactivation at +U _B |
| Output | | |
| Switching type | | light/dark on |
| Signal output | | 2 PNP, complementary, 1 NPN short-circuit protected, reverse polarity protected |
| Switching voltage | | 30 V DC |
| Switching current | | max. 200 mA |
| Switching frequency | f | 70 Hz |
| Response time | | 5 ms |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Approvals and certificates | | |
| UL approval | | cULus |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -20 ... 75 °C (-4 ... 167 °F) |
| Mechanical specifications | | |
| Housing width | | 26.8 mm |
| Housing height | | 91 mm |
| Housing depth | | 67.6 mm |
| Degree of protection | | IP65 |
| Connection | | terminal compartment |
| Material | | |
| Housing | | Terluran® GV15 |
| Optical face | | glass |
| Mass | | 180 g |

Connection Assignment

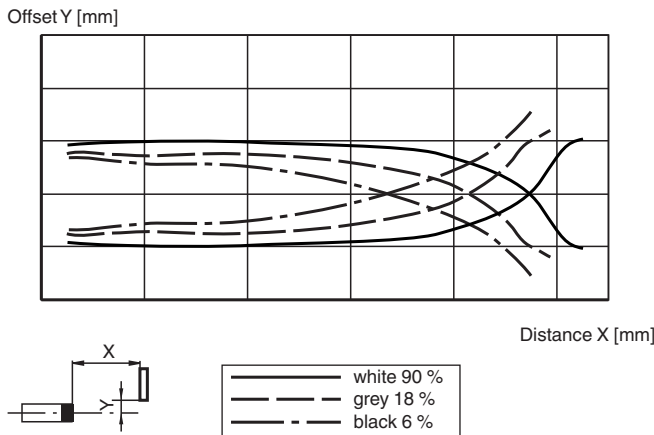
Option: /125



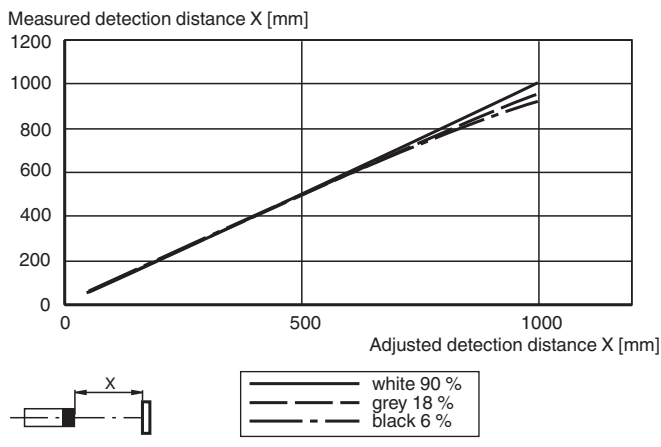
- = Light on
- = Dark on

Characteristic Curve

Characteristic response curve







Difference in detection distance



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Accessories

| | | |
|---|---------------------|---|
|  | OMH-05 | Mounting aid for round steel \varnothing 12 mm or sheet 1.5 mm ... 3 mm |
|  | OMH-21 | Mounting bracket: mounting aid for sensors in the RL* series |
|  | OMH-22 | Mounting aid for RL* series |
|  | OMH-RLK29-HW | Mounting bracket for rear wall mounting |

Light-on/dark-on changeover switch

| | |
|---|----------|
|  | Dark on |
|  | Light on |