

FT 55-RLH

Diffuse laser sensor with background suppression



PRODUCT HIGHLIGHTS

- Precisely adjustable background suppression – reliable operation even with highly reflective and glossy backgrounds
- Particularly suitable for the detection of the smallest of objects
- Very small, easily visible laser light spot
- Precise scanning distance adjustment by means of potentiometer
- Plug and cable connection rotatable

| Optical data | | Functions | |
|------------------------------------|--|---------------------------------|--|
| Scanning distance | 5 ... 800 mm ¹ | Indicator LED, green | Operating voltage indicator |
| Type of light | Laser, red, 655 nm | Indicator LED, yellow | Switching output indicator / contamination indicator |
| Light spot size | See diagram | Scanning distance adjustment | Via potentiometer |
| Laser Class (IEC 60825-1) | 1 | Adjustment possibilities | N.O./N.C. via control input |
| | | Default settings | Max. scanning distance (6 %) |
| Electrical data | | Mechanical data | |
| Operating voltage, +U _B | 12 ... 30V DC ² | Dimensions | 50 × 50,1 × 23 mm |
| No-load current, I ₀ | ≤ 30 mA | Enclosure rating | IP 69K & IP 67 ³ |
| Output current, I _e | ≤ 100 mA | Material, housing | PC-ABS |
| Protective circuits | Reverse-polarity protection, U _B / short-circuit protection (Q) | Material, front screen | PMMA |
| Protection Class | 2 | Type of connection | See selection table |
| Power On Delay | < 300 ms | Ambient temperature: operation | -20 ... +60 °C ⁴ |
| Switching output, Q | PNP/NPN (see selection table) | Ambient temperature: storage | -20 ... +80 °C |
| Output function | N.O./N.C. | Weight (plug device) | 35 g |
| Switching frequency, f (ti/tp 1:1) | ≤ 1000 Hz | Weight (cable device) | 125 g |
| Response time | 500 μs | Vibration and impact resistance | EN 60947-5-2 |
| Control input, IN | +U _B = N.C. -U _B / Open = N.O. | | |

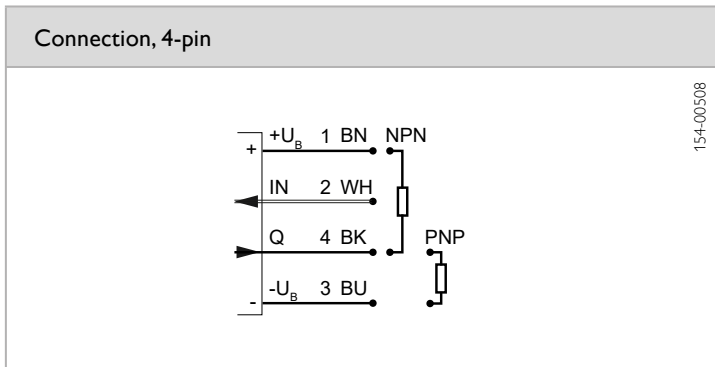
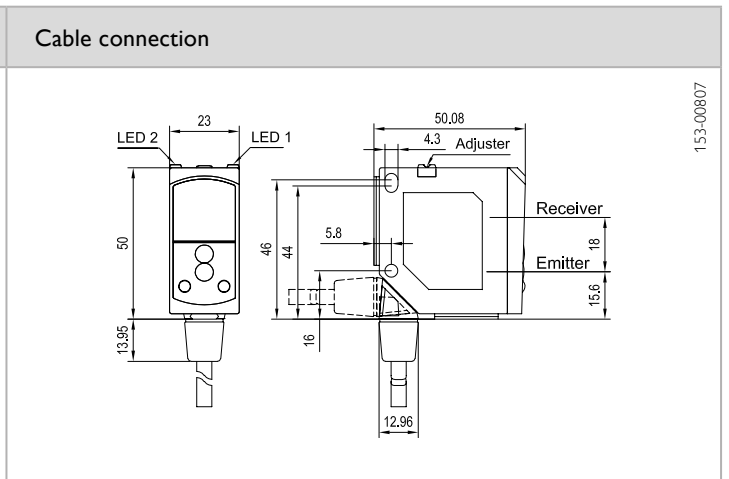
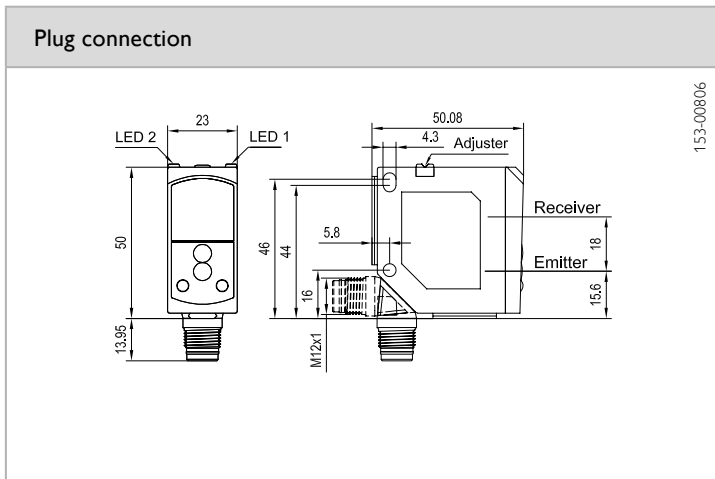
¹ Reference material: white, 90 % reflectivity ² Max. 10 % ripple, within U_B, ~ 50 Hz / 100 Hz ³ With connected IP 67 / IP 69K plug ⁴ UL: max. +45 °C

| Scanning distance | Switching output | Type of connection | Part number | Article number |
|-------------------|------------------|--------------------|-----------------|----------------|
| 5 ... 800 mm | PNP | Plug, M12x1, 4-pin | FT 55-RLH-PS-L4 | 623-11018 |
| 5 ... 800 mm | NPN | Plug, M12x1, 4-pin | FT 55-RLH-NS-L4 | 623-11019 |
| 5 ... 800 mm | PNP | Cable, 3 m, 4-wire | FT 55-RLH-PS-K4 | 623-11021 |
| 5 ... 800 mm | NPN | Cable, 3 m, 4-wire | FT 55-RLH-NS-K4 | 623-11022 |

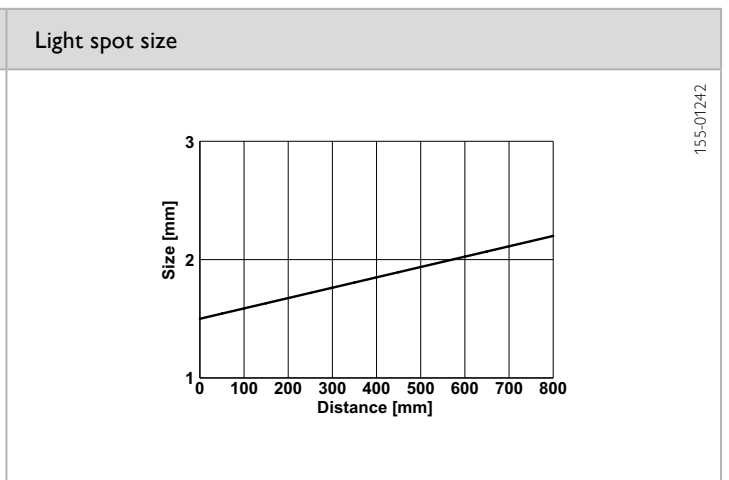
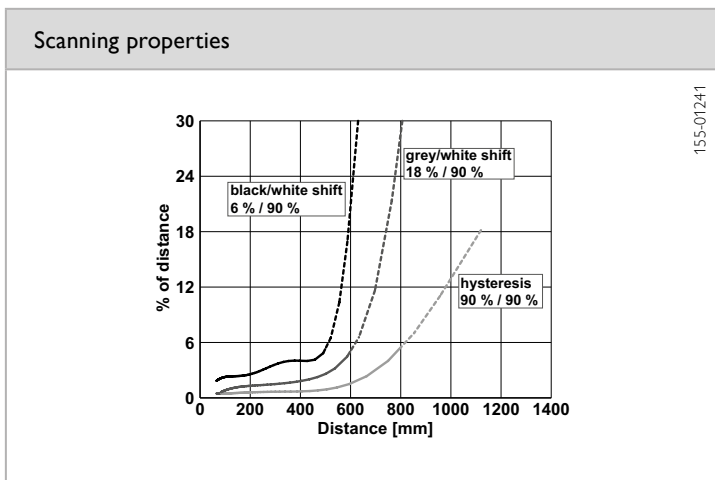
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| Reference material | Detection range |
|--------------------|-----------------|
| White (90 %) | 5 ... 800 mm |
| Grey (18 %) | 10 ... 600 mm |
| Black (6 %) | 30 ... 500 mm |

Accessories

| | |
|-------------------|--|
| Connection cables | www.sensopart.com/en/accessories |
| Brackets | |