

FT 25-BF2

BlueLight-Photoelectric proximity sensor with background suppression, fixed focus



PRODUCT HIGHLIGHTS

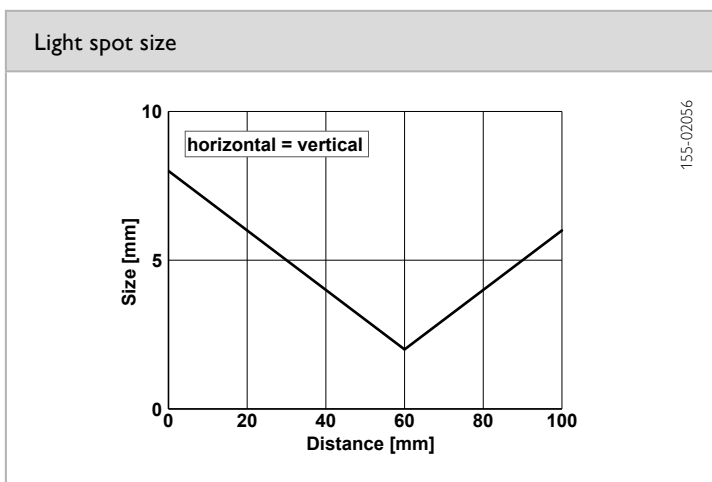
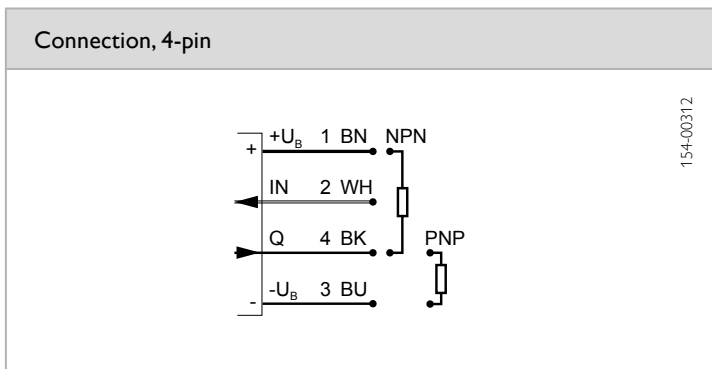
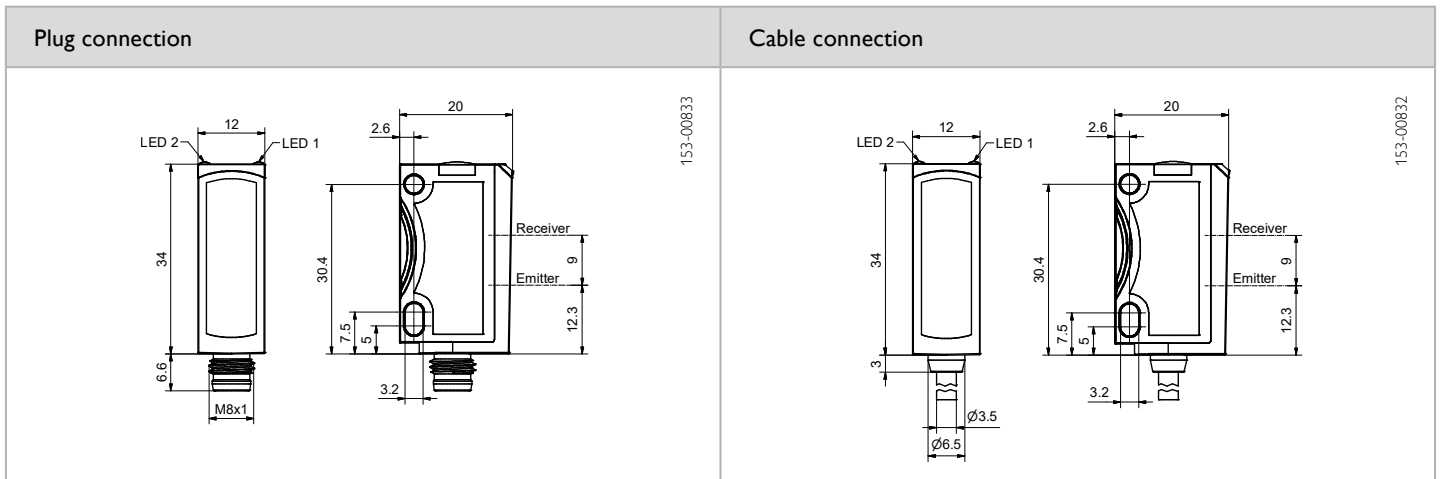
- Miniature sensor with BlueLight technology and precise fixed background suppression
- Reliable switching behaviour with strongly light-absorbing and highly transparent objects
- Reliable operation without reflector - even with critical surfaces
- Tamper-proof sensor design - no misalignment possible
- Simple mounting and adjustment through innovative dovetail clamp mounting

| Optical data | | Functions | |
|------------------------------------|--|---------------------------------|-----------------------------|
| Scanning distance | 0 ... 80 mm ¹ | Indicator LED, green | Operating voltage indicator |
| Background suppression from | 100 mm | Indicator LED, yellow | Switching output indicator |
| Type of light | LED, blue, 450 nm | Adjustment possibilities | N.O./N.C. via control input |
| Light spot size | See diagram | | |
| Hysteresis | ~ 1% ² | | |
| Electrical data | | Mechanical data | |
| Operating voltage, +U _B | 10 ... 30V DC ³ | Dimensions | 34 x 20 x 12 mm |
| No-load current, I ₀ | ≤ 30 mA | Enclosure rating | IP 69K & IP 67 ⁴ |
| Output current, I _e | ≤ 100 mA | Material, housing | 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 | < 300ms | Ambient temperature: operation | -20 ... +60 °C ⁵ |
| Switching output, Q | PNP/NPN (see Selection Table) | Ambient temperature: storage | -20 ... +80 °C |
| Output function | N.O./N.C. | Weight (plug device) | 10 g |
| Switching frequency, f (ti/tp 1:1) | ≤ 1000 Hz | Weight (cable device) | 40 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 Based on scanning distance ³ Max. 10 % ripple, within U_B, ~ 50 Hz / 100 Hz ⁴ With connected IP 67 / IP 69K plug

⁵ UL: -20 ... +50 °C

| Scanning distance | Switching output | Type of connection | Part number | Article number |
|-------------------|------------------|--------------------|-----------------|----------------|
| 0 ... 80 mm | PNP | Plug, M18x1, 4-pin | FT 25-BF2-PS-M4 | 608-11038 |
| 0 ... 80 mm | NPN | Plug, M18x1, 4-pin | FT 25-BF2-NS-M4 | 608-11039 |
| 0 ... 80 mm | PNP | Cable, 2 m, 4-wire | FT 25-BF2-PS-K4 | 608-11040 |
| 0 ... 80 mm | NPN | Cable, 2 m, 4-wire | FT 25-BF2-NS-K4 | 608-11041 |



| Reference material | Detection range |
|--------------------|-----------------|
| White (90 %) | 0 ... 80 mm |
| Grey (18 %) | 0 ... 80 mm |
| Black (6 %) | 1 ... 80 mm |

| Accessories | |
|-------------------|----------------|
| Connection cables | From Page A-40 |
| Brackets | From Page A-4 |