

FT 25-BH

BlueLight-Photoelectric diffuse sensor with background suppression



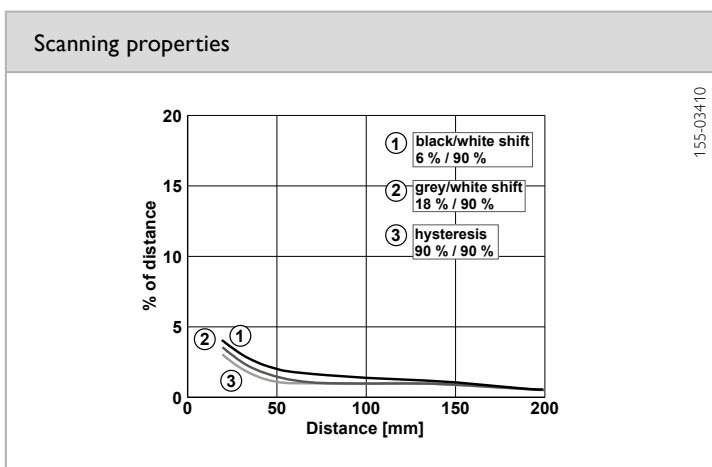
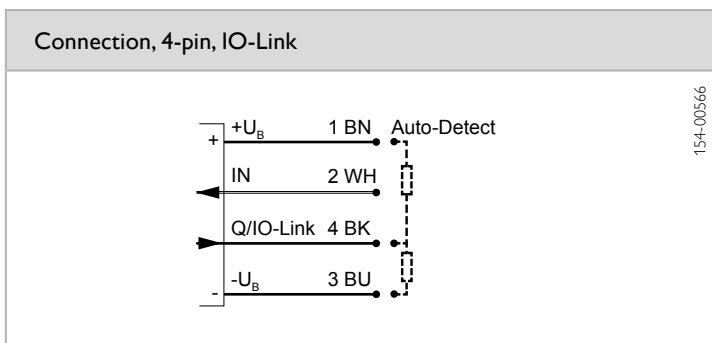
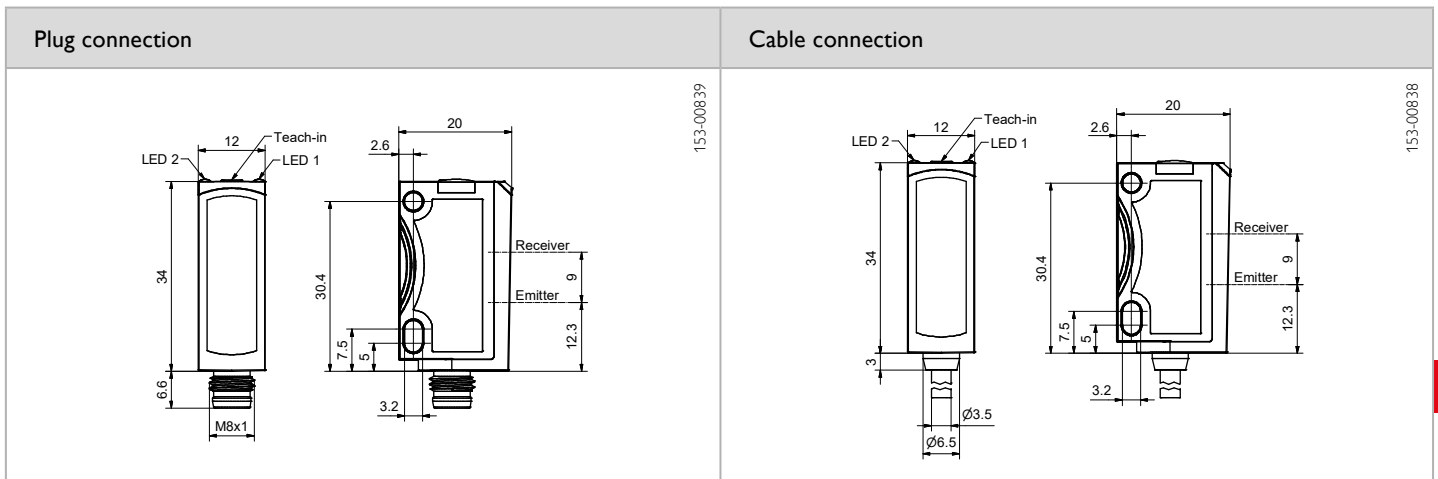
PRODUCT HIGHLIGHTS

- Miniature sensor with BlueLight technology and precisely adjustable background suppression
- Reliable switching with strongly light absorbing and shiny objects
- Reliable operation even with highly reflective backgrounds thanks to SensoPart ASIC technology
- Simple alignment thanks to easily visible light spot
- Sensor setting via teach-in, control input and IO-Link
- Robust glass-fibre-reinforced plastic housings

| Optical data | | Functions | |
|------------------------------------|--|--|---|
| Scanning distance | 1 ... 200 mm ¹ | Indicator LED, green | Operating voltage indicator |
| Adjustment range | 10 ... 200 mm ¹ | Indicator LED, yellow | Switching output indicator |
| Type of light | LED, blue, 450 nm | Scanning distance adjustment | Via Teach-in button, control input ³ and IO-Link |
| Light spot size | 7 mm x 7 mm | Teach-in modes | Mode 1: during running process Mode 2: during standing process |
| | | Adjustment possibilities | N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input ³ and IO-Link Button lock via control input ³ and IO-Link Wide variety of adjustment possibilities via IO-Link |
| | | Default settings | Max. scanning distance and N.O. |
| Electrical data | | Mechanical data | |
| Operating voltage, +U _B | 10 ... 30V DC ² | Dimensions | 34 x 20 x 12 mm |
| No-load current, I ₀ | ≤ 30 mA | Enclosure rating | IP 69 & IP 67 ⁵ |
| 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 | < 300 ms | Ambient temperature: operation | -20 ... +60 °C ⁶ |
| Switching output, Q | 1x Auto-Detect (PNP/NPN) ⁴ | Ambient temperature: storage | -20 ... +80 °C |
| Output function | N.O./N.C. | Weight (plug device) | 10 g |
| Switching frequency, f (ti/tp 1:1) | ≤ 600 Hz | Weight (metal plug device ⁷) | 10 g |
| Response time | 500 μs | Weight (cable device) | 40 g |
| Control input, IN ³ | +U _B = teach-in -U _B = button locked Open = normal operation | Weight (pigtail) | 20 g |
| | | Vibration and impact resistance | EN IEC 60947-5-2 |
| IO-Link | | | |
| Communication mode | COM 2 | | |
| Min. cycletime | 2.3 ms | | |
| SIO mode | Compatible | | |
| Length process data | 16 Bit | | |
| Specification | 1.1 | | |

¹ Reference material: white, 90 % reflectivity ² Max. 10 % ripple, within U_B, ~ 50 Hz / 100 Hz ³ Only 4-pin design ⁴ Auto-Detect, automatic PNP/NPN selection by the sensor; PNP or NPN fixed ⁵ With connected IP 67/IP 69 plug ⁶ UL: -20 ... +50 °C ⁷ No Ecolab

| Scanning distance | Switching output | Type of connection | Part number | Article number |
|-------------------|------------------|---|-------------------|----------------|
| 0 ... 200 mm | Auto-Detect | Metal plug, M8x1, 4-pin, IO-Link | FT 25-BH-PNSL-M4M | 608-11063 |
| 0 ... 200 mm | Auto-Detect | Plug, M8x1, 4-pin, IO-Link | FT 25-BH-PNSL-M4 | 608-11064 |
| 0 ... 200 mm | Auto-Detect | Pigtail, 150 mm with plug, M8, 4-pin, IO-Link | FT 25-BH-PNSL-KM4 | 608-11065 |
| 0 ... 200 mm | Auto-Detect | Pigtail, 150 mm with plug, M12 4-pin, IO-Link | FT 25-BH-PNSL-KL4 | 608-11070 |



| Reference material | Detection range | Accessories |
|--------------------|-----------------|--|
| White (90 %) | 1 ... 200 mm | Connection cables |
| Grey (20 %) | 3 ... 200 mm | Brackets |
| Black (5 %) | 5 ... 200 mm | SensolO (901-01001) |
| | | www.sensopart.com/en/accessories |