

# FT 25-BF2

BlueLight-Photoelectric proximity sensor with background suppression, fixed focus



## PRODUCT HIGHLIGHTS

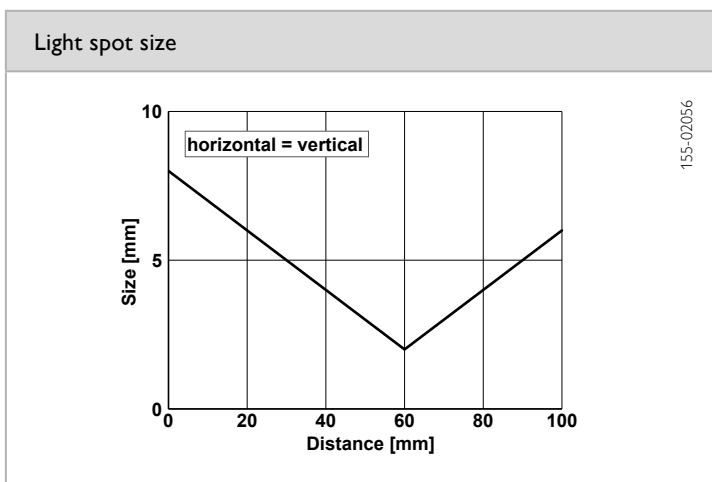
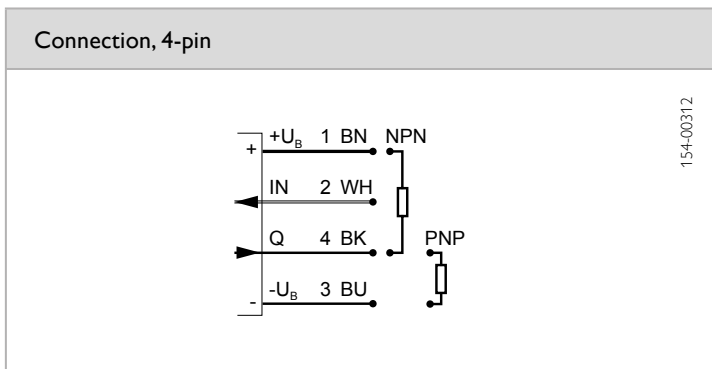
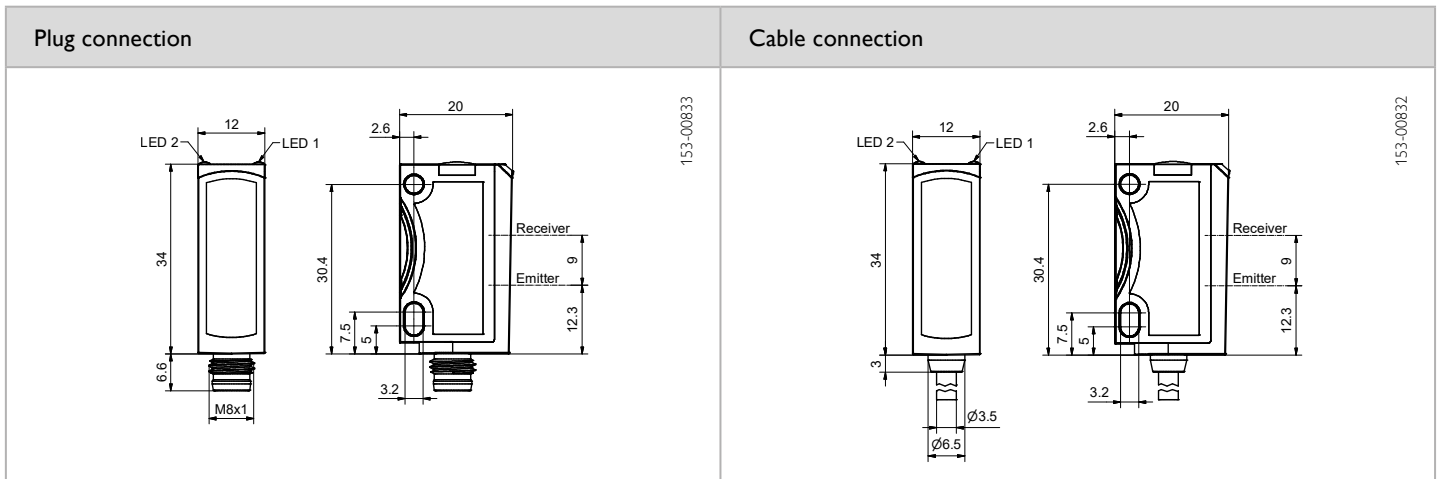
- Sub-miniature sensor with BlueLight technology and precise fixed background suppression
- Reliable switching behaviour with strongly light-absorbing and highly transparent objects
- Reliable operation without reflector - even with critical surfaces
- Tamper-proof sensor design - no misalignment possible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

Optical data		Functions	
Scanning distance	0 ... 80 mm <sup>1</sup>	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% <sup>2</sup>		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>3</sup>	Dimensions	34 x 20 x 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>4</sup>
Output current, I <sub>e</sub>	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / 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 <sup>5</sup>
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 <sub>B</sub> = N.C. -U <sub>B</sub> / Open = N.O.		

<sup>1</sup> Reference material: white, 90 % reflectivity    <sup>2</sup> Based on scanning distance    <sup>3</sup> Max. 10 % ripple, within U<sub>B</sub>, ~ 50 Hz / 100 Hz    <sup>4</sup>With connected IP 67 / IP 69K plug

<sup>5</sup> 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-38
Brackets	From Page A-4