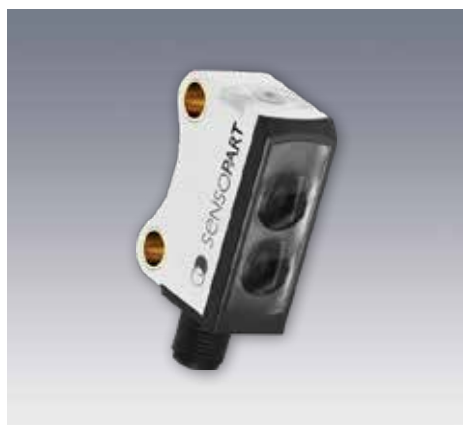


# FT 10-BF

BlueLight-Photoelectric diffuse sensor with background suppression, fixed focus



## PRODUCT HIGHLIGHTS

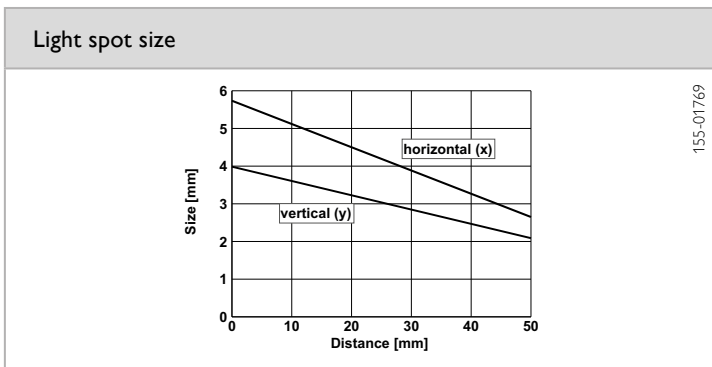
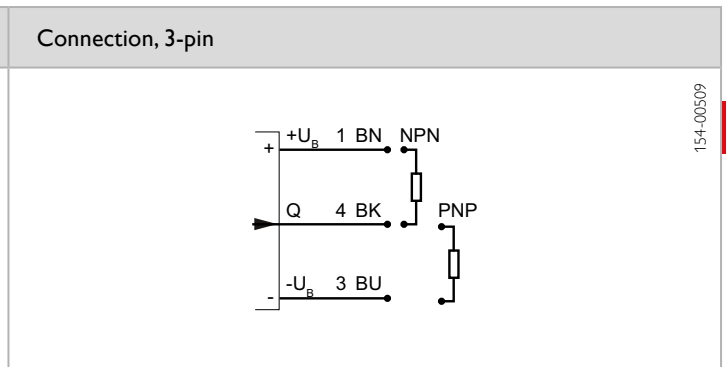
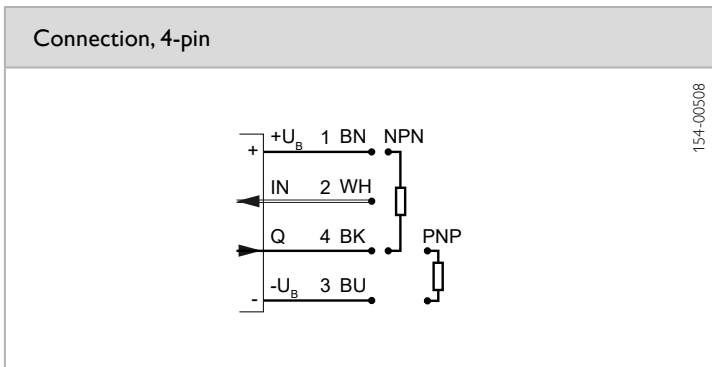
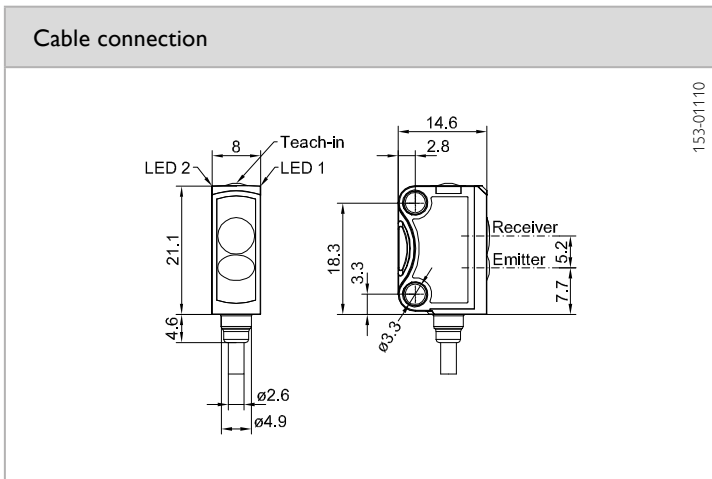
- Sub-miniature sensor with BlueLight technology and precise fixed background suppression
- Reliable switching behaviour with strongly light-absorbing and transparent objects, e.g. solar wafers in every process phase
- Reliable operation without reflector - even with critical surfaces
- Tamper-proof sensor design - no misalignment possible
- Simple mounting and adjustment through innovative dovetail clamp mounting

Optical data		Functions	
Scanning distance	2 ... 30 mm <sup>1</sup> / 2 ... 50 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Optimum scanning distance	15 ... 20 mm	Indicator LED, yellow	Switching output indicator
Used light	LED, blue, 450 nm	Adjustment possibilities	N.O. / N.C. via control input <sup>3</sup>
LED risk group (DIN 62471)	2		
Light spot size	See diagram		
Ambient light	EN IEC 60947-5-2		
Electrical data		Mechanical data	
Operating voltage +U <sub>B</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	21,1 x 14,6 x 8 mm
No-load supply current I <sub>0</sub>	≤ 20 mA	Enclosure rating	IP 67 <sup>4</sup>
Output current I <sub>e</sub>	≤ 50 mA	Material, housing	PUR
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	< 300 ms	Ambient temperature: operation	-20 ... +50 °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 (cable device)	Approx. 22 g
Switching frequency, f (ti/tp 1:1)	1000 Hz	Weight (pigtail)	Approx. 10 g
Response time	500 μs		
Control input, IN <sup>3</sup>	+U <sub>B</sub> = N.C. -U <sub>B</sub> / Open = N.O.		

<sup>1</sup> Reference material white, 90 % reflectivity    <sup>2</sup> Max. residual ripple 10 %, within U<sub>B</sub>, approx. 50 Hz/100 Hz    <sup>3</sup> Only 4-pin design    <sup>4</sup>With connected IP 67 plug    <sup>5</sup> UL: -20 ... +30 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
2 ... 30 mm <sup>1</sup>	PNP	Cable, 2 m, 4-wire	FT 10-BF2-PS-K4	600-11026
2 ... 30 mm <sup>1</sup>	NPN	Cable, 2 m, 4-wire	FT 10-BF2-NS-K4	600-11029
2 ... 30 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF2-PS-KM4	600-11027
2 ... 30 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF2-NS-KM4	600-11030
2 ... 30 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF2-PS-KM3	600-11028
2 ... 30 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF2-NS-KM3	600-11031
2 ... 50 mm <sup>1</sup>	PNP	Cable, 2 m, 4-wire	FT 10-BF3-PS-K4	600-11036
2 ... 50 mm <sup>1</sup>	NPN	Cable, 2 m, 4-wire	FT 10-BF3-NS-K4	600-11039
2 ... 50 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF3-PS-KM4	600-11037
2 ... 50 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF3-NS-KM4	600-11040
2 ... 50 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF3-PS-KM3	600-11038
2 ... 50 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF3-NS-KM3	600-11041

Including dovetail clamp mounting MBD F 10 for all types



### Accessories

Connection cables	<a href="http://www.sensopart.com/en/accessories">www.sensopart.com/en/accessories</a>
Brackets	