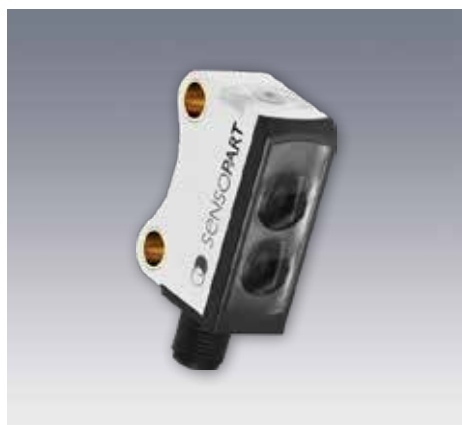


# FT 10-BH

BlueLight-Photoelectric diffuse sensor with background suppression



## PRODUCT HIGHLIGHTS

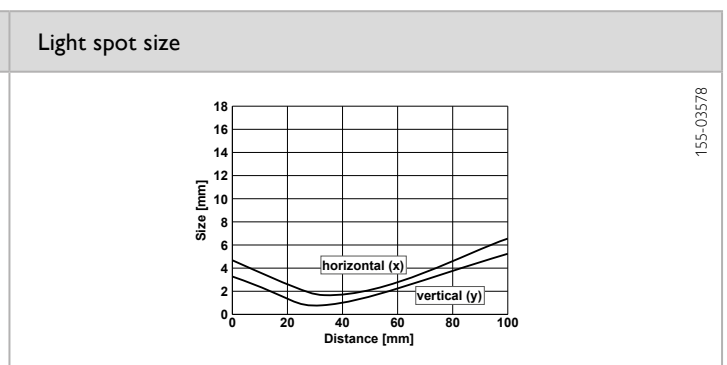
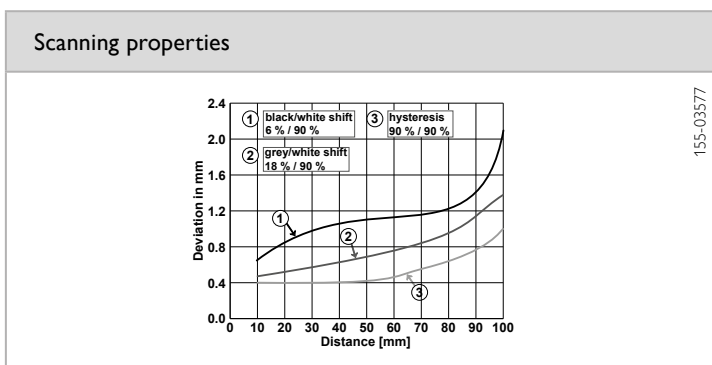
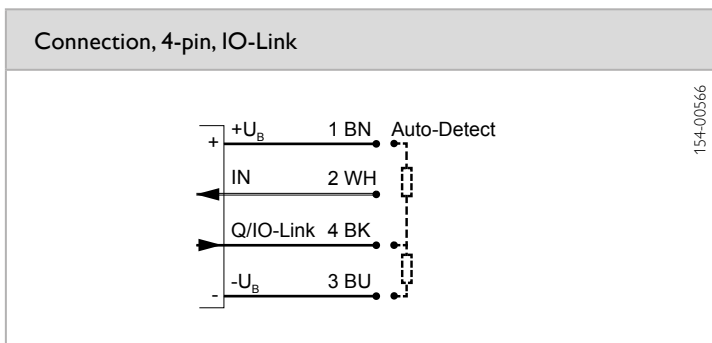
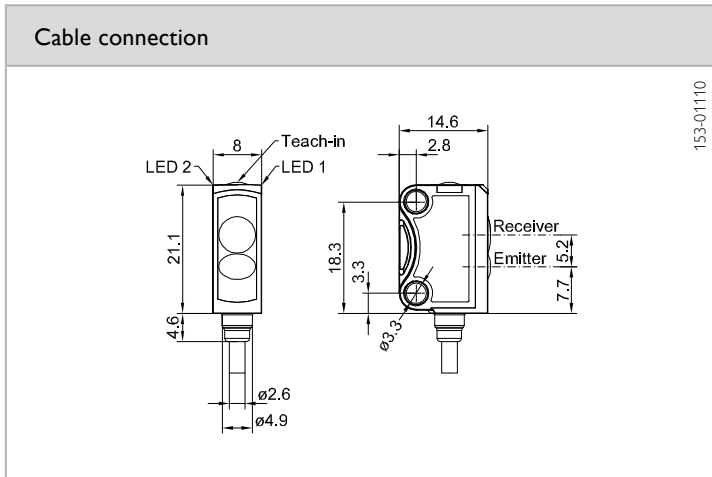
- Sub-miniature sensor with BlueLight technology and precise, adjustable background suppression
- Precise and reliable switching behaviour with strongly light-absorbing objects
- Reliable operation without reflector - even with critical surfaces
- Simple alignment through easily visible light spot
- Sensor settings via teach-in, control input and IO-Link

Optical data		Functions	
Scanning distance	3 ... 100 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Adjustment range	10 ... 100 mm <sup>1</sup>	Indicator LED, yellow	Switching output indicator
Used light	LED, blue, 470 nm	Scanning distance adjustment	Via Teach-in button, control input and IO-Link
Light spot size	See diagram	Teach-in modes	Mode 1: during running process Mode 2: during standing process
Hysteresis	≤ 1.2 mm <sup>1,2</sup>	Adjustment possibilities	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input and IO-Link Button lock via control input and IO-Link Wide variety of adjustment possibilities via IO-Link
Grey/white shift (18 % / 90 %)	≤ 1.4 mm <sup>2</sup>	Default settings	Max. range and N.O.
Black/white shift (6 % / 90 %)	≤ 2.4 mm <sup>2</sup>		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	13 ... 30V DC <sup>3</sup>	Dimensions	21,1 × 14,6 × 8 mm
No-load current, I <sub>0</sub>	≤ 20 mA	Enclosure rating	IP 67 <sup>6</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 ... +60 °C <sup>7</sup>
Switching output, Q	1x Auto-Detect (PNP/NPN) <sup>4</sup>	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)	≤ 700 Hz	Weight (pigtail)	Approx. 10 g
Response time	700 μs		
Control input, IN	+U <sub>B</sub> = teach-in / keylock / disabled <sup>5</sup> -U <sub>B</sub> / open = normal operation		
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Length process data	16 Bit		
Specification	1.1		

<sup>1</sup> Reference material white, 90 % reflectivity    <sup>2</sup> At maximum scanning distance    <sup>3</sup> Max. 10 % ripple within U<sub>B</sub>, ~ 50 Hz / 100 Hz    <sup>4</sup> Auto-Detect, automatic PNP/NPN selection by the sensor, PNP or NPN fixed    <sup>5</sup> Adjustable via IO-Link, default: Teach-in    <sup>6</sup> With connected IP 67 plug    <sup>7</sup> UL: -20 ... +30 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
3 ... 100 mm <sup>1</sup>	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FT 10-BH-PNSL-K4	600-11063
3 ... 100 mm <sup>1</sup>	Auto-Detect	Pigtail, 200 mm with M8 plug, 4-pin, IO-Link	FT 10-BH-PNSL-KM4	600-11062

Including dovetail clamp mounting MBD F 10 for all types



Reference material	Detection range	Accessories
White (90 %)	3 ... 100 mm	Connection cables
Grey (18 %)	4 ... 100 mm	Brackets
Black (6 %)	5 ... 100 mm	SensolO (901-01001)
		<a href="http://www.sensopart.com/en/accessories">www.sensopart.com/en/accessories</a>