

FT 55-BH(2)

BlueLight-Photoelectric diffuse sensor with background suppression



PRODUCT HIGHLIGHTS

- Long scanning distance of 1.2 m
- BlueLight technology with precisely adjustable background suppression – reliable operation even with highly reflective and glossy backgrounds
- Precise scanning distance adjustment by means of potentiometer
- Reliable detection of highly transparent or strongly light-absorbing objects
- Reliable detection even with angles of up to 90°

Optical data		Functions	
Scanning distance	3 ... 1200 mm ¹	Indicator LED, green	Operating voltage indicator
Type of light	LED, blue, 450 nm	Indicator LED, yellow	Switching output indicator / contamination indicator
Light spot size	See diagram	Scanning distance adjustment	Via potentiometer
Ambient light	EN 60947-5-2	Adjustment possibilities	N.O./N.C. via control input
		Default settings	S _n = 500 mm (6 %)
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30 V DC ²	Dimensions	50 x 50.1 x 23 mm
No-load current, I ₀	≤ 30 mA	Enclosure rating	IP 69K & IP 67 ³
Output current, I _e	≤ 100 mA	Material, housing	PC-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 ⁴
Switching output, Q	PNP/NPN (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	35 g
Switching frequency, f (ti/tp 1:1)	≤ 600 Hz	Weight (cable device)	125 g
Response time	830 µs	Vibration and impact resistance	EN 60947-5-2
Control input, IN	+U _B = N.C. -U _B / Open = N.O.		

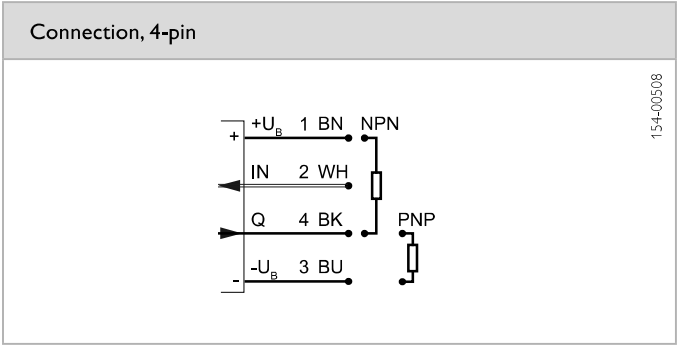
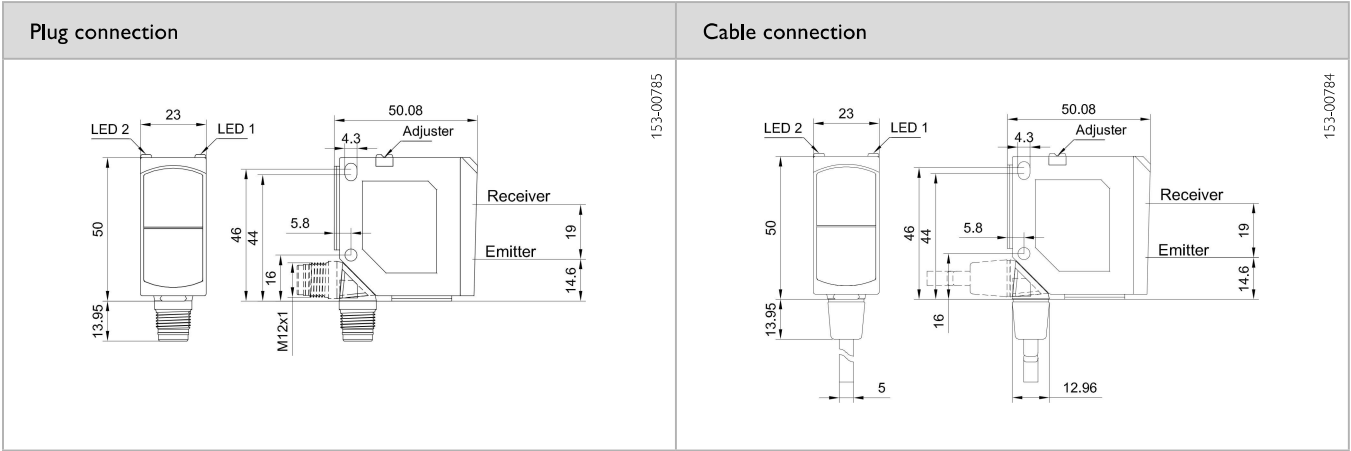
¹ Reference material: white, 90 % reflectivity

² Max. 10 % ripple, within U_B ~ 50 Hz / 100 Hz

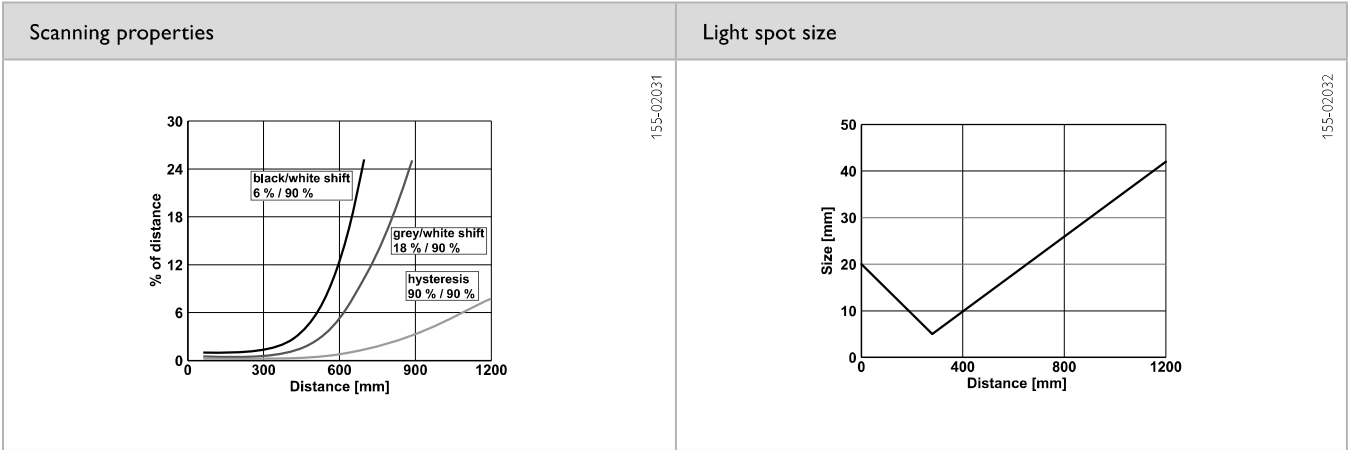
³ With connected IP 67 / IP 69K plug

⁴ UL: max. +45 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
3 ... 1200 mm	PNP	Plug, M12x1, 4-pin	FT 55-BH-PS-L4	623-11036
3 ... 1200 mm	NPN	Plug, M12x1, 4-pin	FT 55-BH-NS-L4	623-11037
3 ... 1200 mm	PNP	Plug, M12x1, 4-pin	FT 55-BH2-PS-L4	623-11041
3 ... 1200 mm	NPN	Plug, M12x1, 4-pin	FT 55-BH2-NS-L4	623-11042



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Reference material	Detection range
White (90 %)	3 ... 1200 mm
Grey (18 %)	5 ... 750 mm
Black (6 %)	10 ... 600 mm

Accessories	
Connection cables	www.sensopart.com/en/accessories
Brackets	