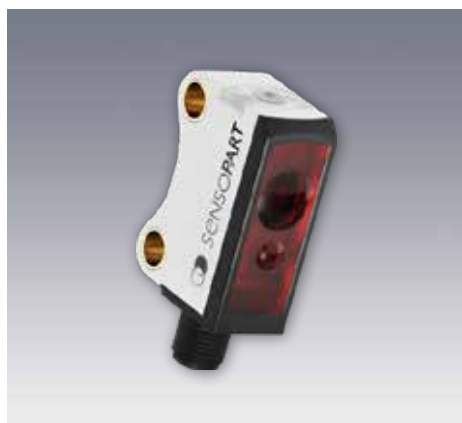


FT 10-B-RLF

Diffuse laser sensor with background suppression, fixed focus



PRODUCT HIGHLIGHTS

- Sub-miniature sensor with laser light and precise fixed background suppression
- Reliable switching behaviour even with varying object surfaces and colors
- Particularly suitable for detecting the smallest of parts and for installation in extremely confined spaces
- Tamper-proof sensor design – no misalignment possible
- Robust, glass-fibre-reinforced plastic housings

Optical data		Functions	
Scanning distance	6 ... 15 mm ¹ 6 ... 30 mm ¹	Indicator LED, green	Operating voltage indicator
Type of light	Laser, red, 655 nm	Indicator LED, yellow	Switching output indicator
Light spot size (total detection area)	1 x 3 mm	Adjustment possibilities	N.O. / N.C. via control input ³ and IO-Link
Laser Class (IEC 60825-1)	1		
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC ²	Dimensions	21.1 x 14.6 x 8 mm
No-load current, I ₀	≤ 12 mA	Enclosure rating	IP 67 ⁴
Output current, I _e	≤ 50 mA	Material, housing	PUR
Protective circuits	Reverse-polarity protection, U _B / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See selection table
Switching output, Q	PNP/NPN (see selection table)	Ambient temperature: operation	-20 ... +50 °C ⁵
Output function	N.O./N.C.	Ambient temperature: storage	-20 ... +80 °C
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (plug device)	Approx. 3 g
Response time	500 μs	Weight (cable device)	Approx. 22 g
Control input, I _N ³	+U _B = N.C. -U _B / Open = N.O.	Weight (pigtail)	Approx. 10 g
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Data storage	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

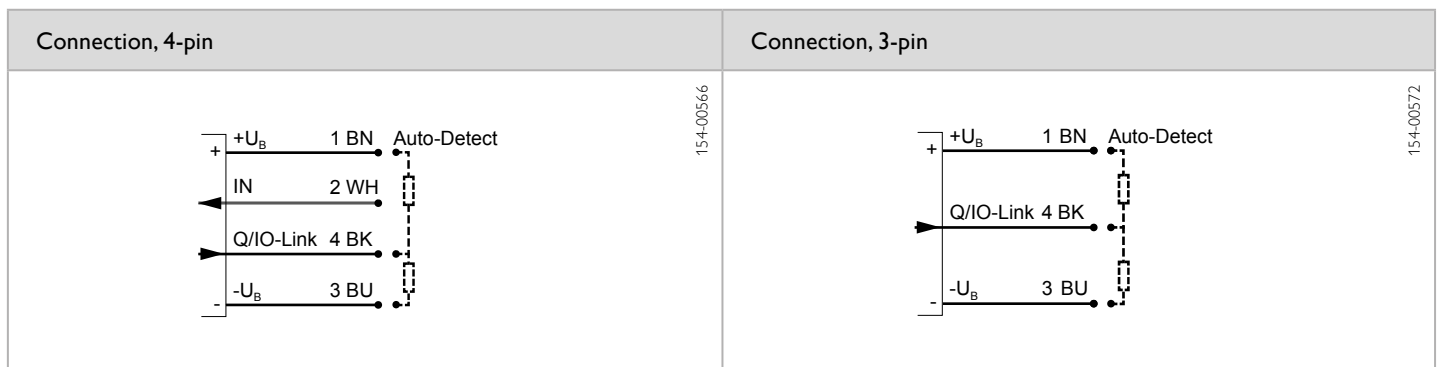
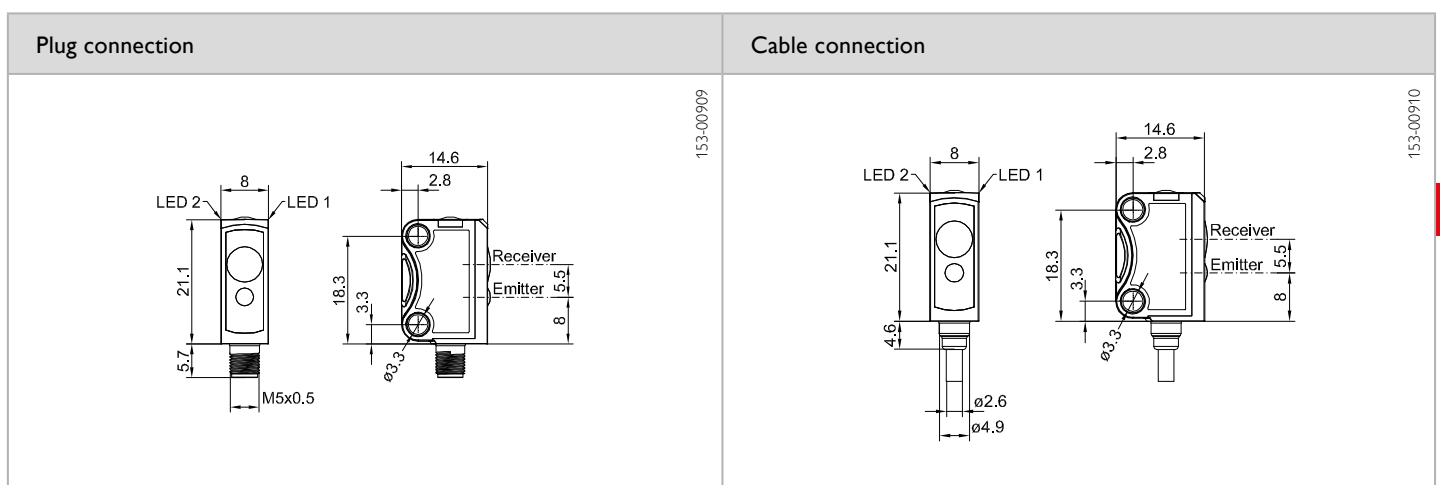
³ Only 4-pin design

⁴ With connected IP 67 plug

⁵ UL: -20 ... +30 °C

Operating range	Switching output	Type of connection	Part number	Article number
6 ... 15 mm	Auto-Detect	Plug, M5x0.5, 4-pin, IO-Link	FT 10-B-RLF1-PNSL-E4	600-11167
6 ... 15 mm	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FT 10-B-RLF1-PNSL-K4	600-11168
6 ... 15 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 4-pin, IO-Link	FT 10-B-RLF1-PNSL-KM4	600-11169
6 ... 15 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 3-ping, IO-Link	FT 10-B-RLF1-PNSL-KM3	600-11170
6 ... 30 mm	Auto-Detect	Plug, M5x0.5, 4-pin, IO-Link	FT 10-B-RLF2-PNSL-E4	600-11171
6 ... 30 mm	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FT 10-B-RLF2-PNSL-K4	600-11172
6 ... 30 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 4-pin, IO-Link	FT 10-B-RLF2-PNSL-KM4	600-11173
6 ... 30 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 3-ping, IO-Link	FT 10-B-RLF2-PNSL-KM3	600-11174

Including dovetail clamp mounting MBD F 10 for all types



Reference material	Detection range	Accessories
White (90 %)	6 ... 15 mm / 30 mm	Connection cables
Grey (18 %)	7 ... 15 mm / 30 mm	Brackets
Black (6 %)	7 ... 15 mm / 30 mm	SensolO (901-01001)
		www.sensopart.com/en/accessories