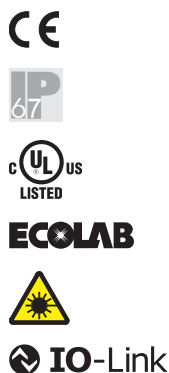


FT 10-RLH

Diffuse laser sensor with background suppression



PRODUCT HIGHLIGHTS

- Sub-miniature sensor with laser light and adjustable background suppression
- Precise and reliable switching behaviour, even with varying object surfaces and colors
- Reliable operation even with highly reflective machine parts in the background, thanks to SensoPart ASIC technology
- Particularly suitable for detecting the smallest of parts and for installation in extremely confined spaces
- Setting of smart functions via IO-Link

Optical data		Functions	
Scanning distance	6 ... 70 mm ¹	Indicator LED, green	Operating voltage indicator
Adjustment range	10 ... 70 mm ¹	Indicator LED, yellow	Switching output indicator
Type of light	Laser, red, 655 nm	Scanning distance adjustment	Via Teach-in button, control input ⁶ and IO-Link
Light spot size (total detection area)	1 x 3 mm	Adjustment possibilities	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input ⁶ and IO-Link Button lock via control input ⁶ and IO-Link Wide variety of adjustment possibilities via IO-Link
Laser Class (IEC 60825-1)	1	Default settings	Max. scanning distance and N.O.
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	≤ 20 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	1x Auto-Detect (PNP/NPN) ³	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)	≤ 800 Hz	Weight (plug device)	Approx. 3 g
Response time	500 μs	Weight (cable device)	Approx. 22 g
Control input, IN (only 4-pin design)	+U _B = teach-in -U _B = button locked Open = normal operation	Weight (pigtail)	Approx. 10 g
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	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 Auto-Detect, automatic PNP/NPN selection by the sensor; PNP or NPN fixed

⁴ With connected IP 67 plug ⁵ UL: -20 ... +30 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
6 ... 70 mm	Auto-Detect	Plug, M5x0.5, 4-pin, IO-Link	FT 10-RLH-PNSL-E4	600-11163
6 ... 70 mm	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FT 10-RLH-PNSL-K4	600-11164
6 ... 70 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 4-pin, IO-Link	FT 10-RLH-PNSL-KM4	600-11165
6 ... 70 mm	Auto-Detect	Pigtail, 200 mm with M8 plug, 3-pin, IO-Link	FT 10-RLH-PNSL-KM3	600-11166

Including dovetail clamp mounting MBD F 10 for all types

Plug connection	Cable connection
<p>153-00894</p>	<p>153-00895</p>

Connection, 4-pin, IO-Link	Connection, 3-pin, IO-Link
<p>154-00566</p>	<p>154-00572</p>

Scanning properties	Light spot size
<p>155-02719</p>	<p>155-01770</p>

Reference material	Detection range	Accessories	
White (90 %)	6 ... 70 mm	Connection cables	From Page A-38
Grey (18 %)	7 ... 70 mm	Brackets	From Page A-4
Black (6 %)	7 ... 70 mm	SensolO (901-01000)	From Page A-56