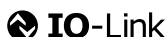


FT 10-RLA

Sub-miniature laser distance sensor



PRODUCT HIGHLIGHTS

- Measurement value output via IO-Link
- Minimum weight
- Also suited to smallest installation spaces thanks to minimal dimensions
- Adjustable averaging times
- Laser class 1 for optimum eye safety

Optical data		Functions	
Measurement range	10 ... 70 mm ¹	Indicator LED, green	Operating voltage indicator
Resolution	0.01 mm	Indicator LED, yellow	Switching output indicator
Linearity	± 0.2 ... 0.8 mm (see characteristics) ²	Measurement range adjustment	Via IO-Link
Repeatability	0.01 ... 0.2 mm (6 σ, see characteristics) ^{2,3}	Adjustment possibilities	Button lock via control input N.O./N.C. and Auto-Detect / NPN / PNP via Teach-in button or IO-Link Smart functions and averaging times via IO-Link
Type of light	Laser, red, 655 nm	Default settings	See selection table
Light spot size	1 x 3 mm		
Laser class (IEC 60825-1)	1		
Resistance to ambient light	≤ 5000 Lux		
Electrical data		Mechanical data	
Operating voltage, +U _B	10 ... 30V DC	Dimensions	21.1 x 14.6 x 8 mm
No-load current, I ₀	≤ 12 mA	Enclosure rating	IP 67 ⁵
Output current, I _{e Q}	≤ 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) ⁴	Ambient temperature: operation	-20 ... +50 °C ⁶
Output function Q	N.O./N.C.	Ambient temperature: storage	-20 ... +60 °C
Switching frequency, f (ti/tp 1:1) Q	≤ 1000 Hz	Weight (cable device)	22 g
Response time Q	500 μs	Weight (pigtail)	10 g
Warm-up time	10 min.	Resistance to vibrations and impacts	EN 60947-5-2
Response time measurement value	4 ms		
Averaging times	4 / 40 / 80 / 120 / 160 / 200 / 240 / 280 / 320 / 360 / 400 ms (Default setting 4 ms)		
Temperature-specific measurement deviation	0.01 mm/K (typ.)		
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.7 ms		
SIO mode	Compatible		
Data storage	Compatible		
Length process data	24 Bit		
Specification	1.1		

¹ Reference material 5...90 % reflectivity be fixed ⁵With connected IP 67 plug

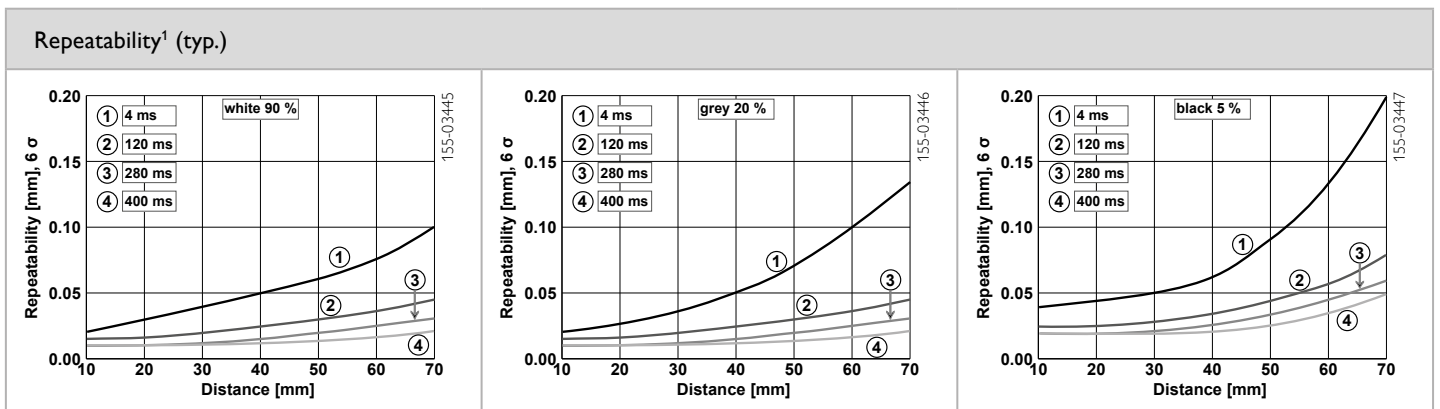
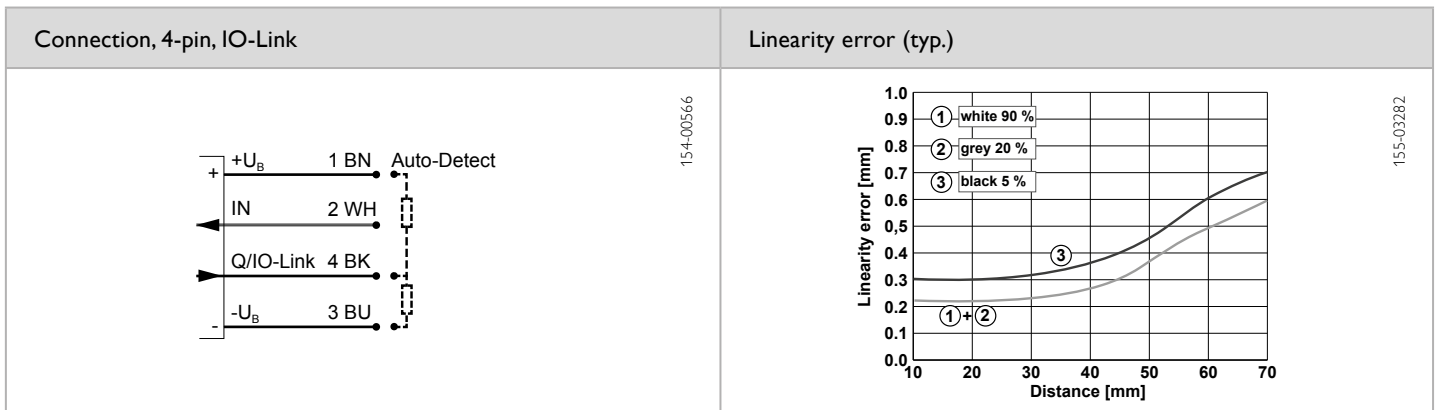
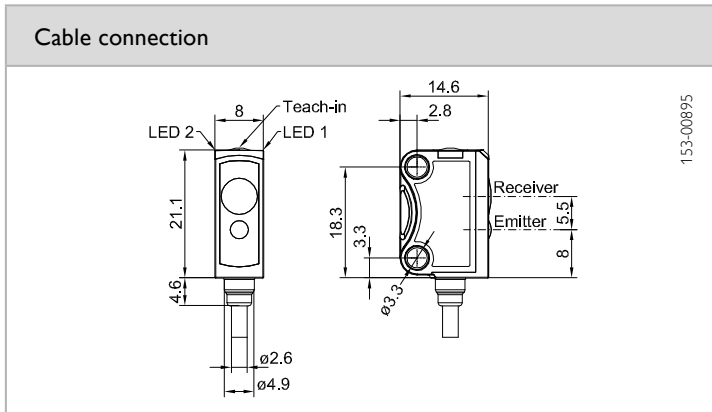
² Reference material 90 % reflectivity

³ Stationary object,

⁴ Auto-Detect: Automatic selection of PNP or NPN by the sensor; PNP or NPN can

⁶ UL: max. +30 °C

Measurement range	Measurement value output	Switching output	Type of connection	Part number	Article number
10 ... 70 mm	IO-Link	Auto-Detect	Pigtail, 200 mm with plug, M8 4-pin, IO-Link	FT 10-RLA-60-PNSL-KM4	600-11175
10 ... 70 mm	IO-Link	Auto-Detect	Cable, 2 m, 4-wire, IO-Link	FT 10-RLA-60-PNSL-K4	600-11176



¹ At constant ambient conditions, minimum distance between sensors 3 mm

Accessories

Connection cables	From Page A-46
Brackets	From Page A-4
SensolO (901-01000)	From Page A-56