

FT 55-RLAP2

Distance sensor with IO-Link measurement value output



PRODUCT HIGHLIGHTS

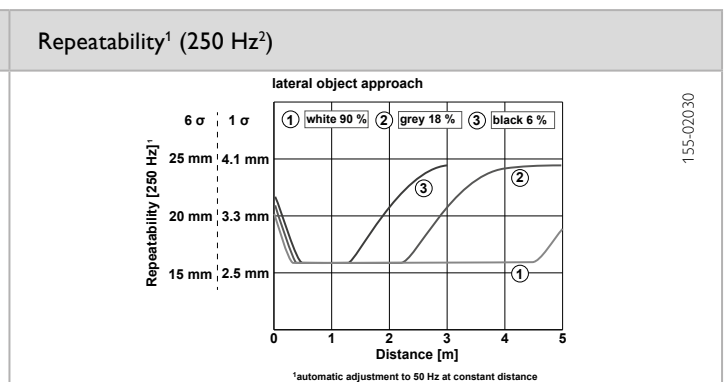
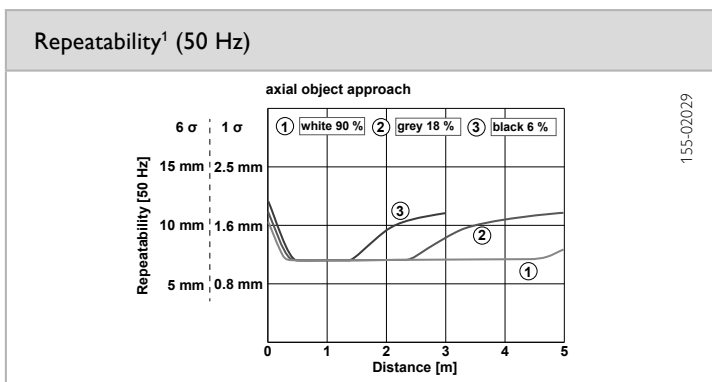
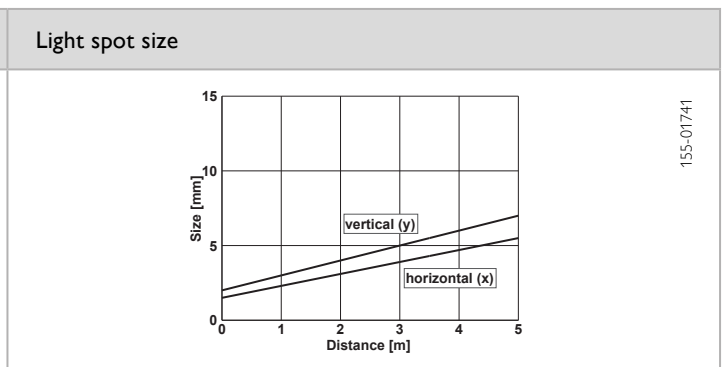
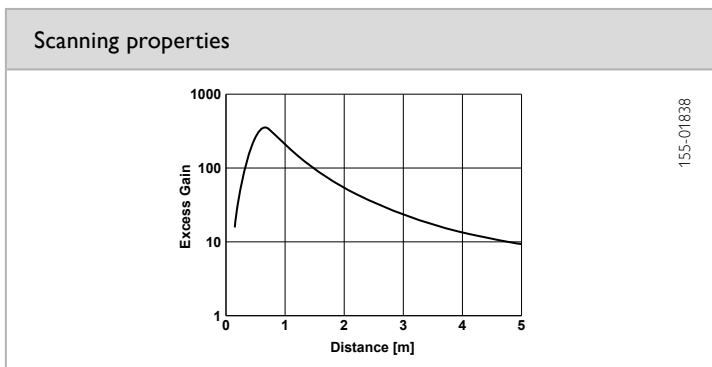
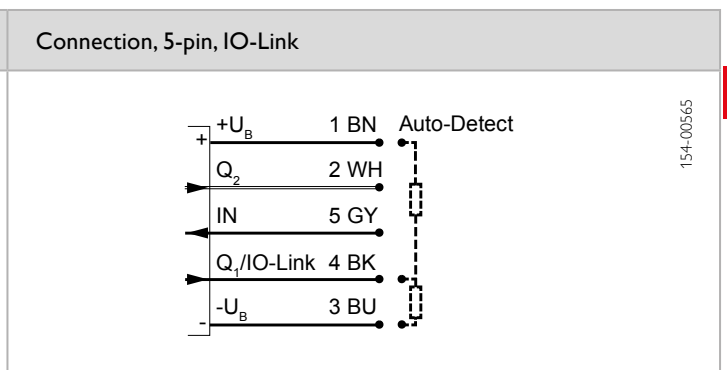
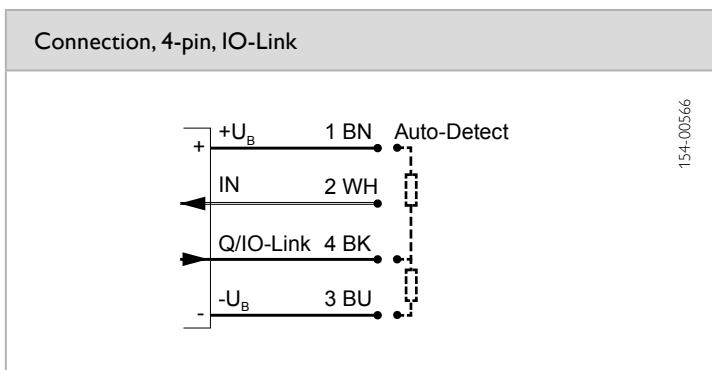
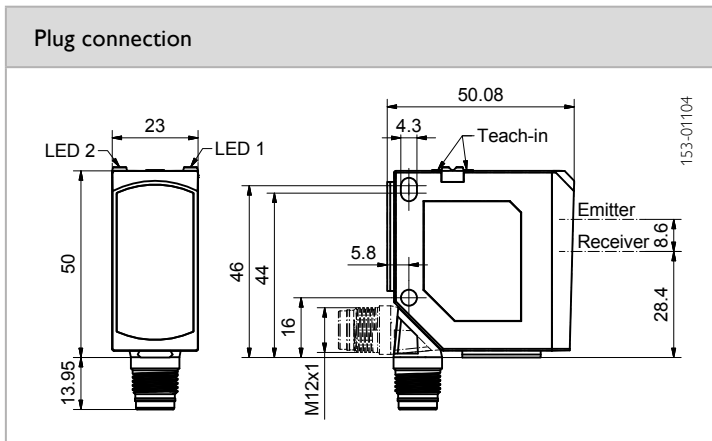
- Measurement value output via IO-Link
- For detection tasks with all object surfaces at high scanning distances
- Reliable object detection even with tilted objects and with bright, highly reflective or shiny backgrounds
- Compact housing for an easy integration
- Simple teach-in
- Clearly visible laser light spot (laser class 1) for an easy alignment and full eye safety

Optical data		Functions	
Scanning distance	0 ... 5 m (see selection table) ¹	Indicator LED 2 green	Operating voltage indicator
Hysteresis	20 mm	Indicator LED 1 yellow	Switching output indicator Q
Black/white shift (6% / 90%)	≤ ± 40 mm	Scanning distance adjustment	Via Teach-in Button and IO-Link
Grey value shift (18% / 90%)	≤ ± 40 mm	Adjustment possibilities	N.O. / N.C. via Teach-in Button and IO-Link, wide variety of adjustment possibilities for service and process data via IO-Link
Type of light	Laser, red 655 nm	Default settings	3 m, N.O.
Laser class (IEC 60825-1)	1		
Resolution	< 5 mm		
Linearity	± 30 mm		
Repeatability	1.2 mm		
Electrical data		Mechanical data	
Operating voltage +U _B	18 ... 30V DC	Dimensions	50 x 50.1 x 23 mm
No-load current I ₀	≤ 60 mA	Enclosure rating	IP 67 & IP 69K ³
Output current I _{e Q}	≤ 100 mA	Material, housing	ABS
Protection 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	< 5 s	Ambient temperature: operation	-40 ... +60 °C ⁴
Switching output Q	1 x Auto-Detect (PNP/NPN) ²	Ambient temperature: storage	-40 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	42 g
Switching frequency f (ti/tp 1:1) Q	≤ 250 Hz	Resistance to vibration and impacts	EN 60947-5-2
Response time Q	1 ms	IO-Link	
Temperature drift	< 2 mm / K	Communication mode	COM 2
Warm-up time	20 min.	Min. cycle time	2.7 ms
Control input IN	+U _B = Teach-in -U _B = button locked Open = normal operation	SIO mode	compatible
		Process bit length	24 Bit
		Specification	1.1

¹ Reference material 90 % reflectivity ² Auto-Detect: Automatic selection of PNP or NPN by the sensor, PNP or NPN can be fixed ³ With connected IP 67 / IP 69K plug

⁴ UL: max. +45 °C

Scanning distance	Switching output	Type of connection	Part Number	Article number
0.06 ... 5 m	1 x Auto-Detect	Plug, M12x1, 4-pin, IO-Link	FT 55-RLAP2-PNSL-L4	623-11035
0.06 ... 5 m	2 x Auto-Detect	Plug, M12x1, 5-pin, IO-Link	FT 55-RLAP2-2PNSL-L5	622-21022



¹ At constant ambient conditions ² Automatic adjustment to 50 Hz at constant distance

Reference material	Scanning distance	Accessories	
White (90 %)	0.06 ... 5 m	Connection cables Brackets	From Page A-38
Grey (18 %)	0.06 ... 5 m		From Page A-4
Black (6 %)	0.06 ... 3 m		