

FT 55-RLAP2-2PNSL-L5

Ordering information

Designation for ordering	FT 55-RLAP2-2PNSL-L5
Part number	622-21022
Order text	Distance sensor with time-of-flight measurement, button, 0.06...5 m, laser, measured value output via IO-Link, 2x Auto-detect, N.O./N.C., teach-in, connector M12 5-pin, IP67 & IP69K, IO-Link COM2, min. cycle time 2.7 ms, SIO mode is supported



Optical data	
Setting range [mm]	60 ... 5,000
Explanation of the setting range	Bezugsmaterial Weiß, 90 % Remission Arbeitsbereich: Weiß, 90%, 60...5000 mm Grau, 20%, 60...5000 mm Schwarz, 5%, 60...3000 mm
Resolution [mm]	5.000
Linearity [mm]	15.00
Explanation of linearity	Specification +/-, reference material 20...90%, the specified precision is achieved by teaching the distances
Repeatability [mm]	≤ 7.00
Explanation of repeatability	Specification 6σ, reference material 90% remission, at 50 Hz
Light source	Laser
Laser class	1 (IEC 60825-1)
Light color	Red
Wavelength [nm]	655
Switching frequency ≤ [Hz]	≤ 250
Switching hysteresis [mm]	20.0
IO-Link resolution [mm]	1.00

Functions	
Display, LED yellow	Switching output indicator Q
Display, LED green	Operating voltage indicator
Setting options	Auto-detect/PNP/NPN and N.O./N.C. via teach-in button and control input Wide range of setting options for service and process data via IO-Link
Default settings	3 m, Auto-detect, N.O.
Measuring range adjustment	via teach-in button, control input and IO-Link

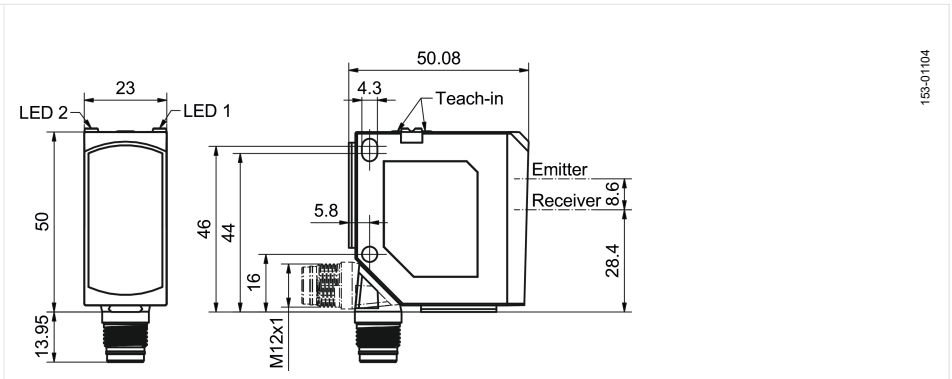
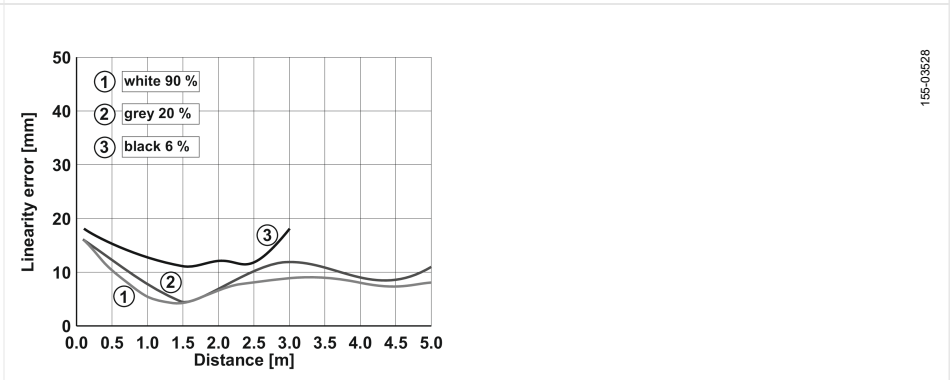
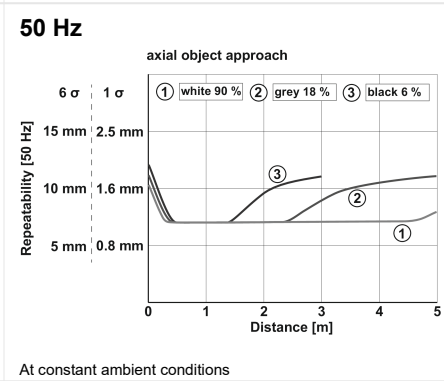
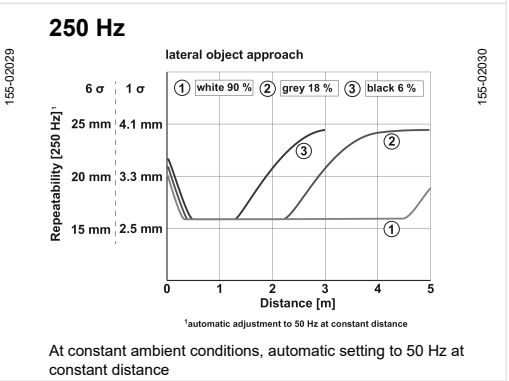
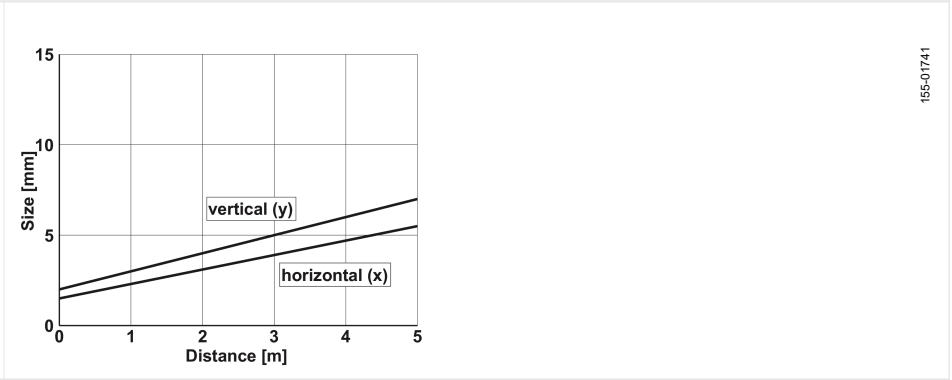
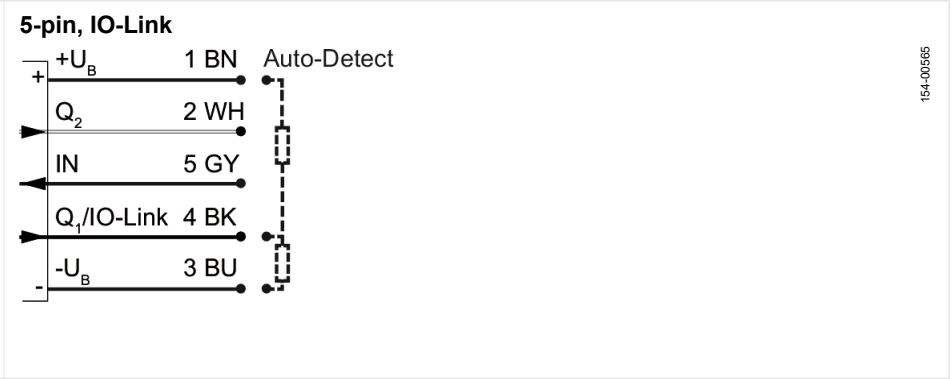
IO-Link	
Data storage	Yes
Communication mode	COM 2
Length of the process data [Bit]	24
Min. cycle time [ms]	2.7
SIO mode	is supported
IO-Link specification	1.1

Electrical data	
Operating voltage UB [V DC]	18 ... 30
No-load current [mA]	≤ 60
Output current [mA]	≤ 100
Readiness delay [ms]	≤ 500
Reverse polarity protection	Yes
Short circuit protection	Yes
Response time Q [μs]	≤ 2,000
Explanation of response time	Response time measured value output: Min. cycle time IO-Link
Control input	+UB = Teach-in -UB = Button locked Open = normal operation
Measured value output	IO Link
Protection class	2
Output function	N.O./N.C.
Switching output Q	2 x Auto-detect/PNP/NPN
Explanation of switching output Q	Auto-detect: automatic selection of PNP or NPN by sensor, PNP or NPN can be configured permanently
Number of outputs	2
Warm-up time [Min.]	20
Temperature profile [mm/K]	1.00

Mechanical data	
Height [mm]	50.0
Length [mm]	50.1
Width [mm]	23.0
Weight [g]	~ 42
Front panel material	PMMA
Housing material	ABS
Ambient temperature: operation [°C]	-40 ... 60
Explanation of operation at ambient air temperature	UL: max. +45 °C
Ambient temperature: storage [°C]	-40 ... 80
Protection class	IP 67, IP 69K
Explanation of protection class	With IP 67/ IP 69K plug connected
Vibration and shock resistance	EN IEC 60947-5-2
Connection name	Plug, M12x1, 5-pin, IO-Link
- Number of pins	5
- Thread	M12x1
Housing type	Cuboidal



Technical drawings

Dimensional drawing													
Linearity (typ.)													
Repeatability (typ.)	50 Hz axial object approach  250 Hz lateral object approach  At constant ambient conditions At constant ambient conditions, automatic setting to 50 Hz at constant distance												
Light spot size													
Connections	5-pin, IO-Link <table border="1"><thead><tr><th>Signal</th><th>Pin</th></tr></thead><tbody><tr><td>+U_B</td><td>1 BN</td></tr><tr><td>Q₂</td><td>2 WH</td></tr><tr><td>IN</td><td>5 GY</td></tr><tr><td>Q₁/IO-Link</td><td>4 BK</td></tr><tr><td>-U_B</td><td>3 BU</td></tr></tbody></table> Auto-Detect 	Signal	Pin	+U _B	1 BN	Q ₂	2 WH	IN	5 GY	Q ₁ /IO-Link	4 BK	-U _B	3 BU
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Product link

<https://www.sensopart.com/en/products/details/622-21022>