

FT 55-RLAP-5-PNSUL-L5

Ordering information

Designation for ordering FT 55-RLAP-5-PNSUL-L5

Part number 622-21024

Order text Distance sensor with time-of-flight measurement, button, 0.1...5 m, laser, analogue 0...10 V, Auto-detect, N.O./N.C., teach-in, connector M12 5-pole, IP67 & IP69K, IO-Link COM2, min. cycle time 2.7 ms, SIO mode is supported

Components supplied Operating manual, Sensor



Optical data	
Setting range [mm]	100 ... 5,000
Explanation of the setting range	Bezugsmaterial Weiß, 90 % Remission Arbeitsbereich: Weiß, 90%, 100...5000 mm Grau, 20%, 100...5000 mm Schwarz, 5%, 100...3000 mm
Resolution [mm]	5.000
Linearity [mm]	15.00
Explanation of linearity	Specification +/-, reference material 20...90% remission, 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

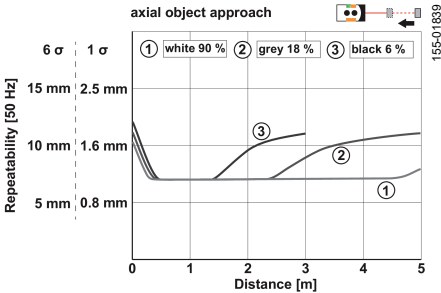
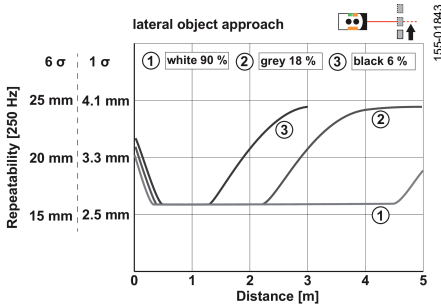
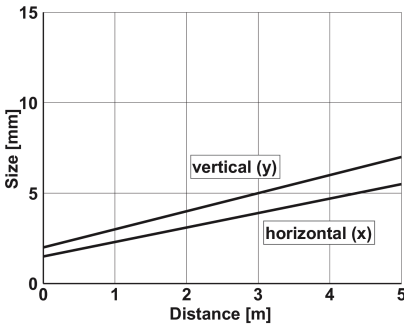
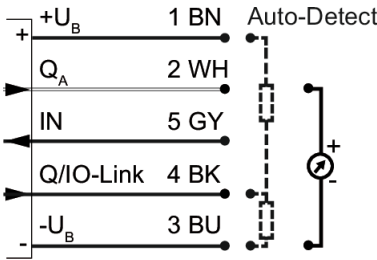
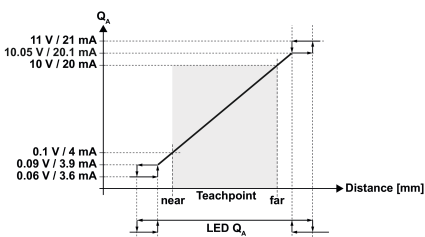
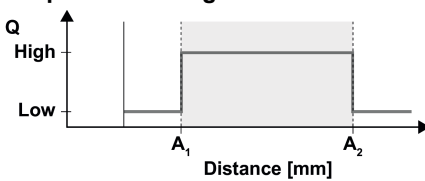
Functions	
Display, LED yellow	LED 1 yellow: Switching output indicator; LED 2 yellow: Analogue output status indicator
Display, LED green	Operating voltage indicator
Setting options	Adjustable analogue measurement range QA Analogue characteristic curve invertible Adjustable switching output Q (switching window) N.O./N.C. and auto-detect/NPN/PNP via teach-in button and control input Wide range of setting options for service and process data via IO-Link
Default settings	Analogue output QA: 0.1...10 V, 0.3...3 m Switching output Q: 0.3...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
Response time QA [μs]	≤ 2000.0
Explanation of response time	QA: 2/20 ms x factor averaging rate
Analog output QA	4 ... 20 mA / 0,1 ... 10 V
Control input	+UB = Teach-in -UB = Button locked Open = normal operation
Protection class	2
Load [Ω]	4000
Explanation of load	≤ 500 Ohm (4...20 mA) / ≥ 4 kOhm (0.1...10 V)
Output function	N.O./N.C.
Switching output Q	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
Averaging times	1/10/20/30/40/50/60/70/80/90/100

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 
Light spot size	 155-01741
Connections	5-pin, Auto-detect  154-00667
Characteristic curves	 Output and analog characteristic curve  155-03336 155-01681

Product link

<https://www.sensopart.com/en/products/details/622-21024>