

FT 55-RLAP2-PNSL-L4

Ordering information

Designation for ordering	FT 55-RLAP2-PNSL-L4
Part number	623-11035
Order text	Distance sensor with time-of-flight measurement, button, 0.06...5 m, laser, measured value output via IO-Link 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 U_B [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 [μ s]	$\leq 2,000$
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	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	1
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 [$^{\circ}$ C]	-40 ... 60
Explanation of operation at ambient air temperature	UL: max. +45 $^{\circ}$ C
Ambient temperature: storage [$^{\circ}$ 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, 4-pin, IO-Link
- Number of pins	4
- Thread	M12x1
Housing type	Cuboidal

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Technical drawings

Dimensional drawing	155-01104
Linearity (typ.)	155-03528
Repeatability (typ.)	50 Hz 155-02029 250 Hz 155-02030 At constant ambient conditions At constant ambient conditions, automatic setting to 50 Hz at constant distance
Light spot size	155-01741
Connections	Receiver The sensor must be used with shielded cables. 154-00566

Product link

<https://www.sensopart.com/en/products/details/623-11035>