

FT 10-RLA-60-PNSL-K4

Ordering information

Designation for ordering	FT 10-RLA-60-PNSL-K4
Part number	600-11176
Order text	Triangulation distance sensor, 10...70 mm, laser, measured value output via IO-Link, Auto-detect, N.O./N.C., button lock via teach input, 2 m cable, IP 67, IO-Link
Components supplied	Operating manual, Sensor, Jaw clamps, Laser warning signs



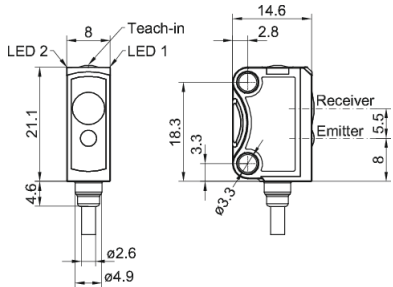
Optical data	
Setting range [mm]	10 ... 70
Erläuterung Einstellbereich	Reference material 5...90% remission
Resolution [mm]	0.010
Linearity [mm]	0.20
Explanation of linearity	± 0.2...0.8 mm (see characteristic curve), reference material 90% remission
Repeatability [mm]	≤ 0.01
Explanation of repeatability	0.01...0.2 mm (6 σ, see characteristic curve) reference material 90% remission; stationary object
Light source	Laser
Laser class	1 (IEC 60825-1)
Light color	Red
Wavelength [nm]	655
Light spot size [mm]	1 x 3
Switching frequency ≤ [Hz]	≤ 1,000
Explanation of switching frequency	ti/tp 1:1
Sensitivity to ambient light [Lux]	≤ 5000

Functions	
Display, LED yellow	Switching output indicator
Display, LED green	Operating voltage indicator
Setting options	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 rates via IO-Link
Default settings	Measurement range: 10...70 mm, averaging rate: 4 ms Detection range N.O.: 70 mm

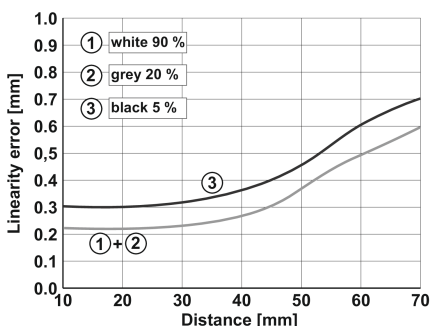
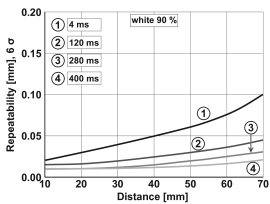
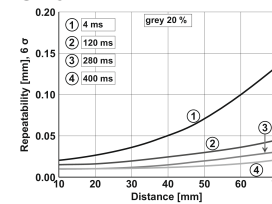
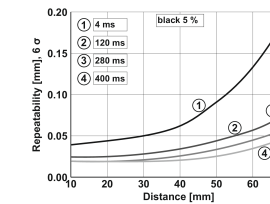
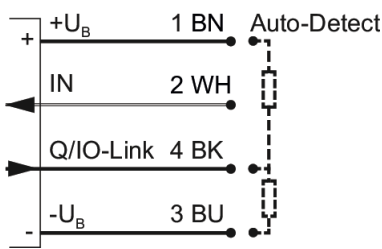
IO-Link	
Data storage	Yes
Communication mode	COM 2
Length of the process data [Bit]	24
Min. cycle time [ms]	2.7
SIO mode	is supported
IO link specification	1.1

Electrical data	
Operating voltage U_B [V DC]	10 ... 30
No-load current [mA]	≤ 12
Output current [mA]	≤ 50
Reverse polarity protection	Yes
Short circuit protection	Yes
Response time Q [μ s]	≤ 500
Response time measured value [ms]	4.00
Measured value output	IO Link
Protection class	2
Output function	N.O./N.C.
Switching output Q	1x 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.]	10
Temperature profile [mm/K]	0.01
Averaging times	4 / 40 / 80 / 120 / 160 / 200 / 240 / 280 / 320 / 360 / 400 ms (factory setting 4 ms)
Explanation of thermal response	typical

Mechanical data	
Height [mm]	21.1
Length [mm]	14.6
Width [mm]	8.0
Weight [g]	~ 22
Front panel material	PMMA
Housing material	PUR
Ambient temperature: operation [$^{\circ}$ C]	-20 ... 50
Explanation of operation at ambient air temperature	UL: max. +30 $^{\circ}$ C
Ambient temperature: storage [$^{\circ}$ C]	-20 ... 60
Protection class	IP 67
Explanation of protection class	with IP 67 plug connected
Vibration and shock resistance	EN 60947-5-2
Connection name	Cable, 2 m, 4-wire, IO-Link
Housing type	Cuboidal

Technical drawings	
Dimensional drawing	

153-00895

Linearity (typ.)	 155-03282
Repeatability (typ.) Under constant ambient conditions, minimum distance between sensors 3 mm	white 90%  155-03445 gray 20%  155-03446 black 5%  155-03447
Connections	 154-00566

Product link

<https://www.sensopart.com/en/products/details/600-11176>