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

The information contained in this data sheet has been prepared with the utmost care. We reserve the right to make technical changes.

Electrical data

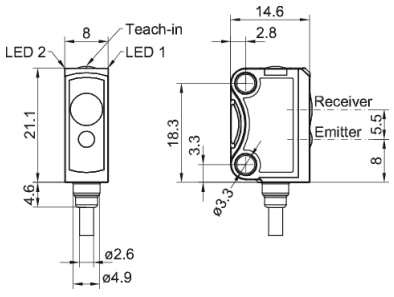
Operating voltage UB *[V DC]*	10 ... 30
No-load current *[mA]*	≤ 12
Output current *[mA]*	≤ 50
Reverse polarity protection	Yes
Short circuit protection	Yes
Response time Q *[µs]*	≤ 500
Response time measured value *[ms]*	4.00
Measured value output	IO Link
Protection class	2
Output function	N.O./N.C.
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

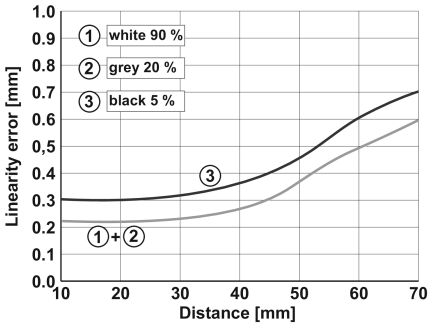
Height *[mm]*	21.1
Length *[mm]*	14.6
Width *[mm]*	8.0
Weight *[g]*	~ 22
Front panel material	PMMA
Housing material	PUR
Ambient temperature: operation *[°C]*	-20 ... 50
Explanation of operation at ambient air temperature	UL: max. +30°C
Ambient temperature: storage *[°C]*	-20 ... 60
Protection class	IP 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



Linearity (typ.)

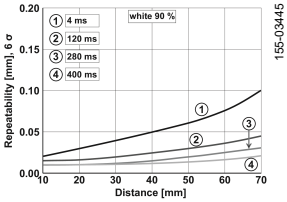


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Repeatability (typ.)

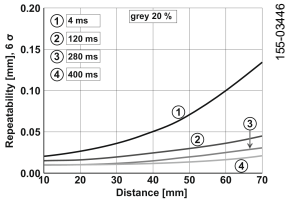
Under constant ambient conditions, minimum distance between sensors 3 mm

white 90%



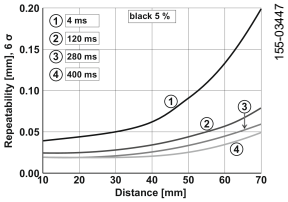
155-03445

gray 20%



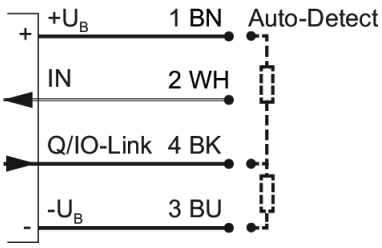
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black 5%



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Connections



154-00566

Product link

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