FT 25-RLA-80-PNSUL-M4M



Ordering information

Designation for ordering	FT 25-RLA-80-PNSUL-M4M
Part number	**604-41013**
Order text	Triangulation distance sensor, 20...100 mm, laser, analogue 1...10 V, Auto-detect, N.O./N.C., teach-in, M8 4-pin metal connector, IP67 & IP69, IO-Link
Components supplied	Operating manual, Sensor, Laser warning signs

Optical data	
Setting range *[mm]*	20 ... 100
Explanation of the setting range	Reference material 6...90% remission
Resolution *[mm]*	0.120
Explanation of resolution	12-bit
Linearity *[mm]*	0.25
Explanation of linearity	Typical value, specification ± up to ≤80 mm, reference material 20% remission, typ. values see diagram
Repeatability *[mm]*	≤ 0.25
Explanation of repeatability	Reference material 20% remission, at 6 σ, at constant ambient conditions, typ. values see diagram
Light source	Laser
Laser class	1 (IEC 60825-1)
Light color	Red
Wavelength *[nm]*	650
Light spot size *[mm]*	See diagram
Switching frequency ≤ *[Hz]*	≤ 1,000
Explanation of switching frequency	ti/tp 1:1

Functions	
Display, LED yellow	Switching output indicator
Display, LED green	Operating voltage indicator
Setting options	Analogue measurement range QA Invertible analogue characteristic curve Switching output Q (switching window) N.O. / N.C. via teach-in button, various setting options of Service and process data via IO-Link
Default settings	Analogue output QA (1...10 V) 20...100 mm Switching output Q, N.O. 20...100 mm
Measuring range adjustment	via teach-in button and IO-Link

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

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]*	13 ... 30
No-load current *[mA]*	≤ 30
Output current *[mA]*	≤ 100
Readiness delay *[ms]*	≤ 300
Reverse polarity protection	Yes
Short circuit protection	Yes
Response time Q *[µs]*	≤ 500
Response time QA *[µs]*	≤ 3400.0
Analog output QA voltage *[V]*	1 ... 10
Measured value output	Analog (voltage), IO Link
Protection class	2
Max. capacitive load *[nF]*	10
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]*	0.10
Explanation of thermal response	typical

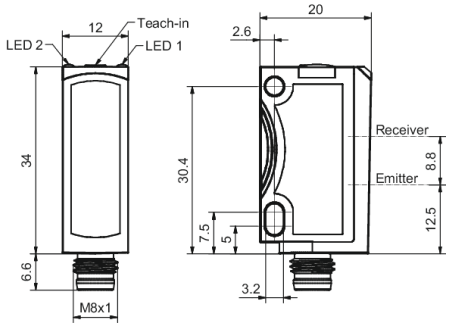
Mechanical data	
Height *[mm]*	34.0
Length *[mm]*	20.0
Width *[mm]*	12.0
Weight *[g]*	~ 10
Front panel material	PMMA
Housing material	ABS
Ambient temperature: operation *[°C]*	-20 ... 60
Explanation of operation at ambient air temperature	UL: -20…+50 °C
Ambient temperature: storage *[°C]*	-20 ... 80
Protection class	IP 67, IP 69
Explanation of protection class	with IP 67 / IP 69 plug connected
Vibration and shock resistance	EN 60947-5-2
Connection name	Metal plug M8x1, 4-pin, IO-Link
- Number of pins	4
- Thread	M8x1
Housing type	Cuboidal

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Technical drawings

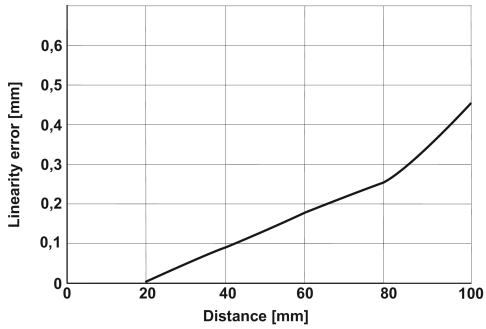
Dimensional drawing

Plug connection



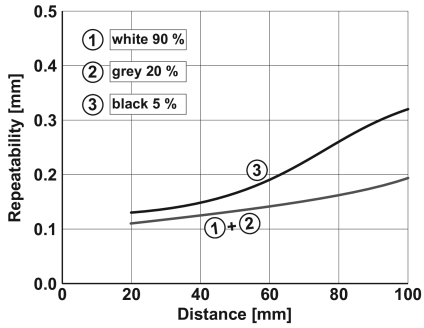
153-00934

Linearity (typ.)



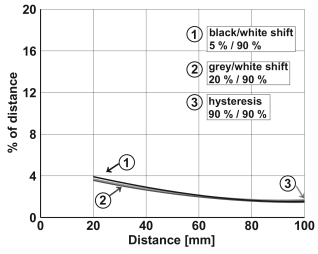
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Repeatability (typ.)



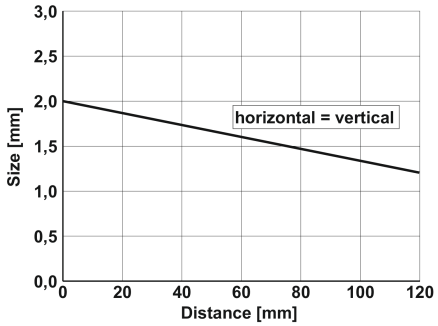
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Scanning properties



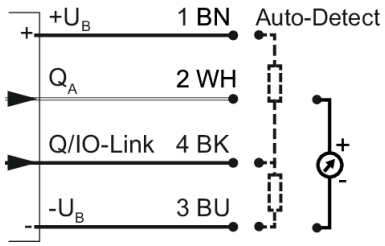
155-01966

Light spot size



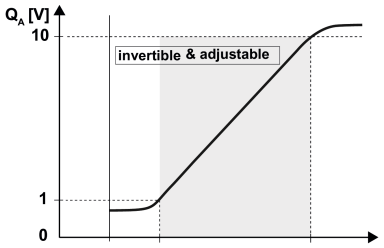
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Connections



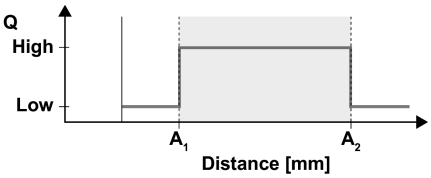
154-00575

Characteristic curves



155-01661

Output and analog characteristic curve



155-01681

Product link

https://www.sensopart.com/en/products/details/604-41013