

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 $\pm$ 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 $\leq$ [Hz]	$\leq 1,000$
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

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

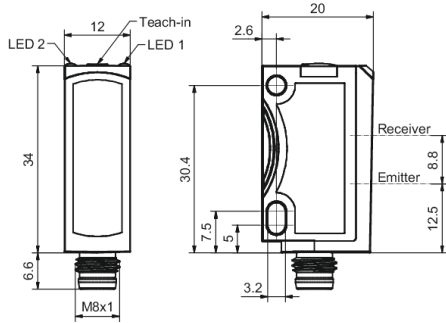
Electrical data	
Operating voltage UB [V DC]	13 ... 30
No-load current [mA]	≤ 30
Output current [mA]	≤ 100
Readiness delay [ms]	≤ 300
Reverse polarity protection	Yes
Short circuit protection	Yes
Response time Q [μs]	≤ 500
Response time QA [μs]	≤ 3400.0
Analog output QA voltage [V]	1 ... 10
Measured value 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

Technical drawings

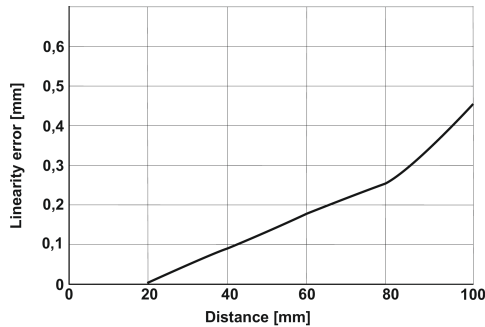
Dimensional drawing

Plug connection



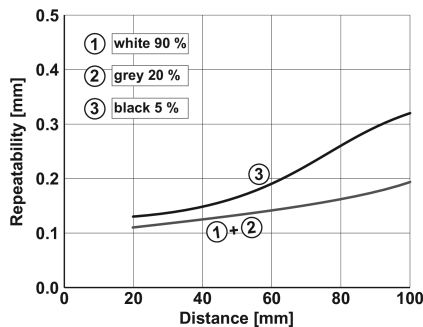
153-00934

Linearity (typ.)



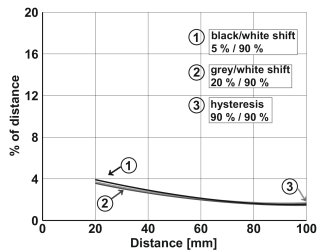
155-03778

Repeatability (typ.)



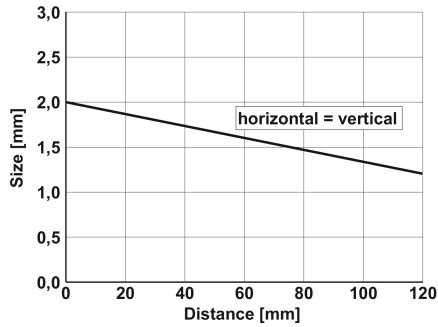
155-03763

Scanning properties



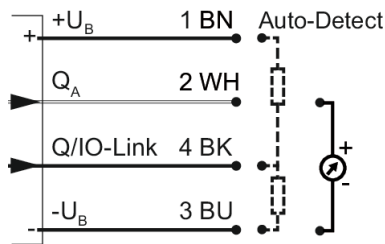
155-01966

Light spot size



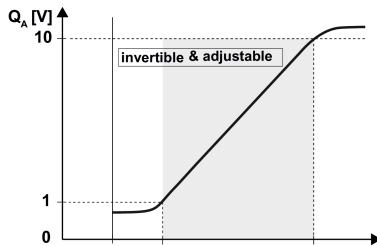
155-01394

Connections

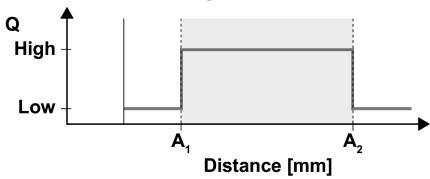


154-00575

Characteristic curves



Output and analog characteristic curve



155-01661

155-01661

Product link

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