Baumer
Passion for Sensors

Inductive distance sensors

IR08.D03L-F46.GP1I.7SL

Article number: 11193947

Overview

- distance measuring
- 0 … 3 mm
- PNP / push-pull
- IO-Link
- connector M8
- -25 … 75 °C
- IP 67

Picture similar

Technical data

General data	
Mounting type	Flush
Special type	Linearized
Type	Distance measuring
Measuring distance Sd	0 … 3 mm
Resolution	< 0.005 mm (High Accuracy Mode)
Repeat accuracy	0.01 mm
Adjustment	IO-Link
Teach	Single point, Two point, Window
Linearity error	± 10 µm (S = 0 ... 2 mm) ± 50 µm (S = 0 ... 3 mm)
Temperature drift	± 2 % (Full Scale: S = 0 ... 2 mm) ± 4 % (Full Scale: S = 0 ... 3 mm)
Hysteresis	< 99 % (adjustable)
Power on indication	LED green
Output indicator	LED yellow
Electrical data	
Response time (factory characteristic)	< 1 ms
Switching frequency	1.25 kHz
Voltage supply range +Vs	8 … 36 VDC
Current consumption max. (no load)	15 mA
Output circuit	PNP Push-pull IO-Link

Electrical data	
Output current	100 mA
Short circuit protection	Yes
Reverse polarity protection	Yes
Mechanical data	
Design	Cylindrical threaded
Material (sensing face)	PBT
Housing material	Stainless steel
Dimension	8 mm
Housing length	46 mm
Connection types	Connector M8
Tightening torque max.	10 Nm (A: 7 Nm)
Ambient conditions	
Operating temperature	-25 … +75 °C
Protection class	IP 67
Communication interface	
Interface	IO-Link V1.1
Baud rate	230,4 kBaud (COM 3)
Cycle time	≥ 0.6 ms
Process data length	32 Bit
Process data structure	Bit 0 = SSC1 (distance) Bit 1 = SSC2 (distance) Bit 3 = alarm Bit 4 = SSC3 (frequency) Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement

2023-08-30 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

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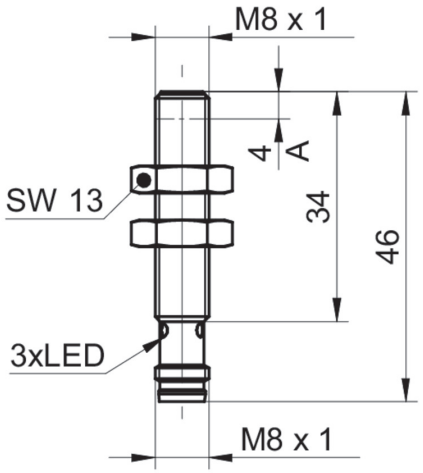
Technical data

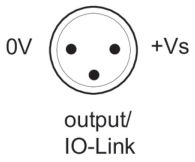
Communication interface	
IO-Link port type	Class A
Adjustable parameters	Measuring range Switching point Switching hysteresis Measured value filtering Time filters LED status indicators Output logic Output circuit Counter Deactivate the sensor element Find Me function

Communication interface	
Additional data	Distance Frequency Operating cycles Operating hours Boot cycles Operating voltage Device temperature Histograms

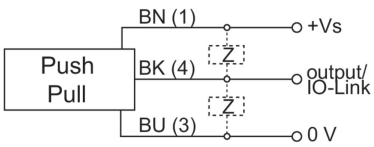
Dimension drawing



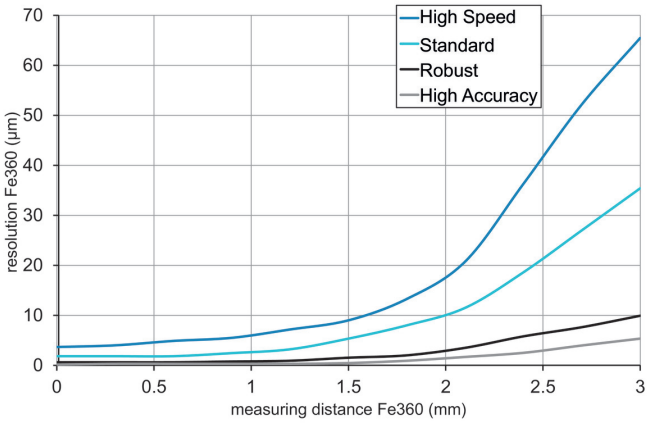
Pin assignment



Connection diagram



Resolution



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