

Overview

- Measuring range $\pm 500 \mu\text{m/m}$
- IO-Link interface for individual, application specific parameterisation
- Integrated amplifier electronics
- Output signal $\pm 10 \text{ VDC}$, IO-Link, 2 x I/O
- Bore hole distance 76 mm
- Cable outlet



Technical data

General data

Nominal strain	0 ... 500 $\mu\text{m/m}$
Non-linearity	< 0.4 %
Repeatability	< 0.2 %
Mechanical mounting	4 x M6 screws

Mechanical data

Overload	150 %
Fatigue strength	>10 Mio cycles at 0...100% FS
Sensor stiffness	2600 N @ 500 $\mu\text{m/m}$
Weight	320 g
Material sensor body	1.7225, chemically nickel plated
Material potting compound	Siliconfree, PUR based
Compensated for thermal expansion coefficient	$11.1 \cdot 10^{-6} \text{ 1/K}$
Electrical connection	Cable outlet, PUR cable, grey $\varnothing 5.2 \text{ mm}$, shielded, drag chain capable, oil resistant, $5 \times 0.14 \text{ mm}^2$, open cable end, bending radius min. $10 \times \varnothing$, length 6 m

Environmental conditions

Operating temperature range	-20 °C ... 70 °C
Storage temperature range	-40 °C ... 85 °C
Protection class EN 60529, ISO20653	IP 65
Vibration IEC 60068-2-6	10 ... 57 Hz: 1.5 mm p-p, 58 ... 2000 Hz: 10 g
Random IEC 60068-2-64	20 ... 1000 Hz: 0.1 g^2/Hz
Shock IEC 60068-2-27	50 g / 11 ms, 100 g / 6 ms

Electrical data

Output signal	$\pm 10 \text{ VDC}$ IO-Link
Signal polarity positive	Tension
Bridge resistance	350 Ω

Electrical data

Supply voltage	18 ... 30 VDC
Current consumption	< 40 mA
Reverse polarity protection	Yes
Short circuit protection	Yes
SIO Input high	$\geq 13 \text{ VDC}$
SIO Input low	$\leq 8 \text{ VDC}$
Measuring resolution	14 bit
Sampling rate input	8 kS/s
Sampling rate output analog	8 kS/s
Cut-off frequency (3 db)	1000 Hz

IO-Link interface

IO-Link version	1.1
IO-Link port type	Class A
Baud rate	230,4 kbaud (COM3)
Process data length	32 bit
Cycle time	$\geq 1 \text{ ms}$
SIO-mode	Yes
Process data (cyclic)	Process Value Scale exponent SSC 1 SSC 2 Quality Alarm

IO-Link features

Parameterizable	Unit (N, kg, $\mu\text{m/m}$) selectable Teach-in Offset/ Tare Correlation to known force Analog output signal Output range analog signal Alarm state analog signal Functions I/O's selectable
-----------------	---

DST76-B500U

Standard strain sensor with voltage output and IO-Link

Article number: 11242293

Technical data

IO-Link features

Additional functions Low pass filter
 Peak value memory
 Sample and hold
 Two digital switching points (SSC)
 Remote operation

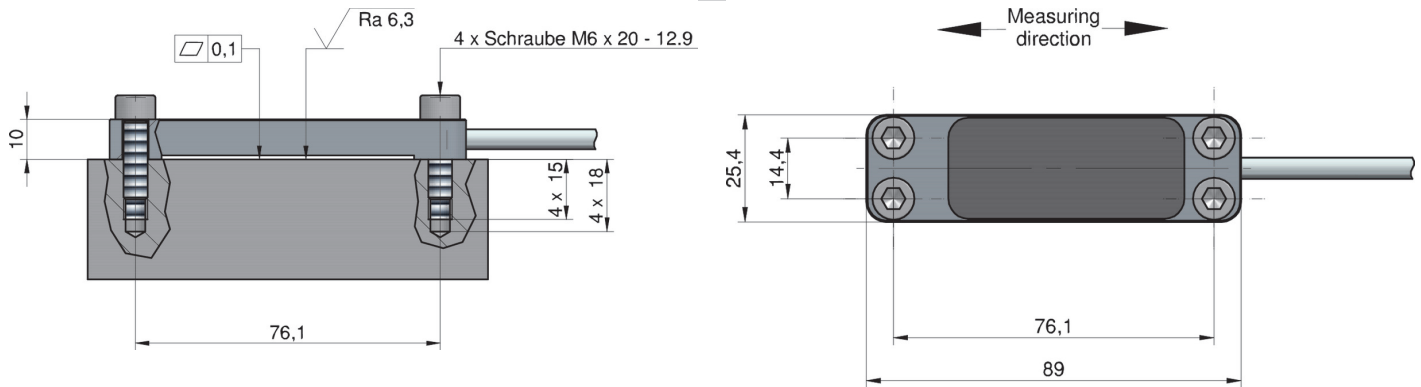
Additional data

Diagnostic data
 Error detection

Compliance and approvals

Conformity CE
 UL

Dimensional drawings (mm)



Electrical connection

wire colour	signal
brown	+Vs / L+
white	DI/DQ
green	Vout / Iout
yellow	0V / L-
pink	C/Q
shield	ground