

DST76-B500L

Standard strain sensor with IO-Link interface

Article number: 11242295

Overview

- Measuring range $\pm 500 \mu\text{m/m}$
- IO-Link interface for individual, application specific parameterisation
- Integrated amplifier electronics
- Output signal IO-Link with 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	180 g
Material sensor body	1.7225, chemically nickel plated
Material potting compound	Siliconfree, PUR based
Compensated for thermal expansion coefficient	$11.1 \cdot 10^{-6} 1/\text{K}$
Electrical connection	Cable outlet, PUR cable, black $\varnothing 3.2 \text{ mm}$, unshielded, oil resistant, 4 x 0.14 mm ² , open cable end, bending radius min. 10 x \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	IO-Link
Signal polarity positive	Tension
Bridge resistance	350 Ω
Supply voltage	18 VDC ... 30 VDC

Electrical data

Current consumption	$\leq 40 \text{ mA}$
Reverse polarity protection	Yes
Short circuit protection	Yes
Measuring resolution	14 bit
Sampling rate input	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 Functions I/O's selectable
Additional functions	Low pass filter Peak value memory Sample and hold Two digital switching points (SSC) Remote operation
Additional data	Diagnostic data Error detection

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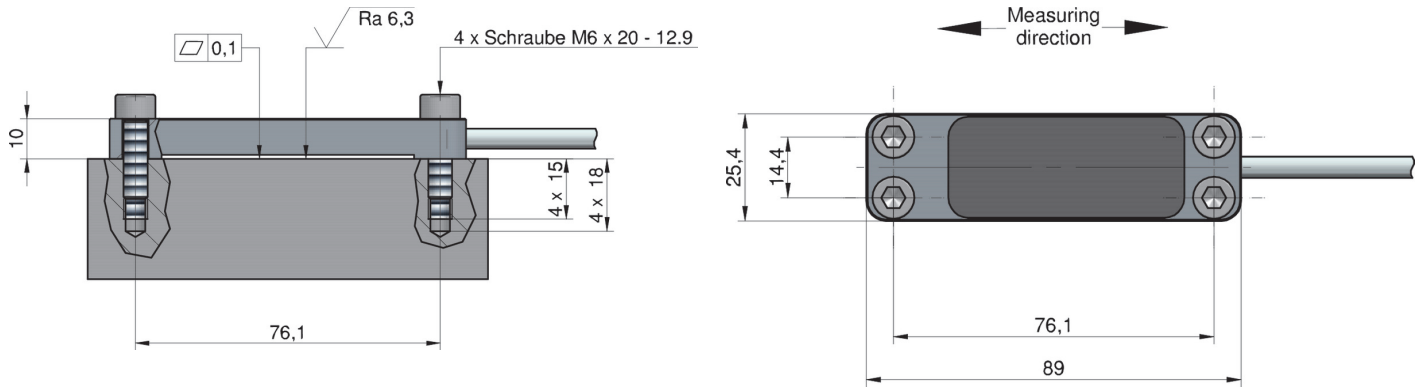
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Technical data

Compliance and approvals

Conformity CE
UL

Dimensional drawings (mm)



Electrical connection

wire colour	signal
brown	L+
white	DI/DQ
blue	L-
black	C/Q