

DST53-A102P

Performance strain sensor without amplifier

Article number: 11244540

Overview

- Measuring range $\pm 1000 \mu\text{m/m}$
- Cost-effective force measurement of large forces
- Minimal influence on the machine structure due to low stiffness
- Output signal mV/V
- Bore hole distance 53 mm
- M12 connector, 5 pin, male



Technical data

General data

Nominal strain	0 ... 1000 $\mu\text{m/m}$
Non-linearity	< 0.3 %
Repeatability	< 0.1 %
Mechanical mounting	4 x M6 screws

Mechanical data

Overload	150 %
Fatigue strength	>10 Mio cycles at 0...100% FS
Sensor stiffness	200 N @ 1000 $\mu\text{m/m}$
Weight	135 g
Material sensor body	1.7225, chemically nickel plated
Material housing	Stainless steel, 1.4301
Compensated for thermal expansion coefficient	$11.1 \cdot 10^{-6} 1/\text{K}$
Electrical connection	M12, 5 pin, male

Environmental conditions

Operating temperature range	-40 °C ... 85 °C
Storage temperature range	-40 °C ... 85 °C

Environmental conditions

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

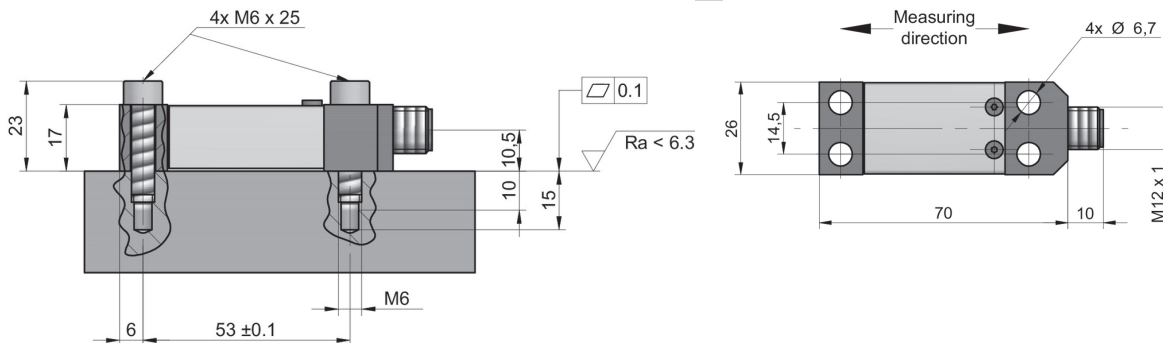
Electrical data

Output signal	mV/V
Signal polarity positive	Tension
Nominal sensitivity	1.2 mV/V
Bridge resistance	350 Ω
Supply voltage	0.5 ... 12 VDC
Current consumption	< 40 mA
Reverse polarity protection	Yes
Short circuit protection	Yes

Compliance and approvals

Conformity	CE UL
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Dimensional drawings (mm)



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Electrical connection

Pin-number	Signals
1	+V _s
2	Sig -
3	-V _s
4	Sig +
5	n. c.
Case	Shield

