

# DST53-A250P

Performance strain sensor without amplifier

Article number: 11244459

## Overview

- Measuring range  $\pm 250 \mu\text{m/m}$
- 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 ... 250 $\mu\text{m/m}$
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	260 N @ 250 $\mu\text{m/m}$
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 <sup>2</sup> /Hz
Shock IEC 60068-2-27	50 g / 11 ms, 100 g / 6 ms

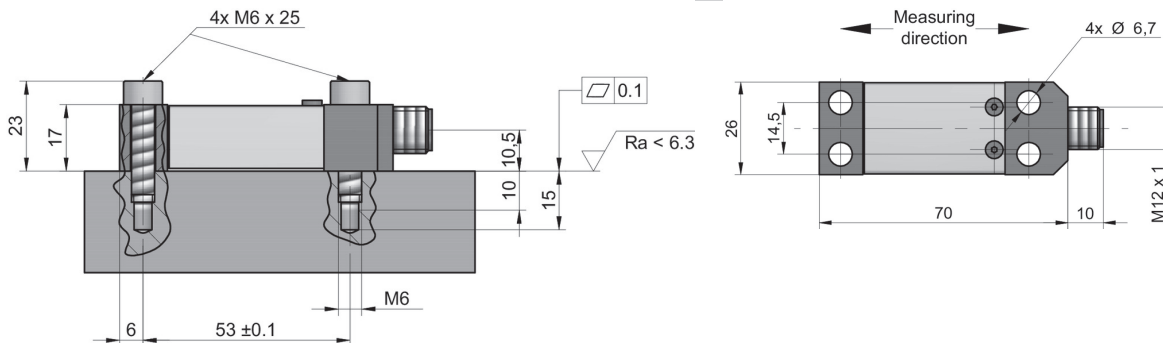
### Electrical data

Output signal	mV/V
Signal polarity positive	Tension
Nominal sensitivity	0.45 mV/V
Bridge resistance	350 $\Omega$
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 <sub>s</sub>
2	Sig -
3	-V <sub>s</sub>
4	Sig +
5	n. c.
Case	Shield

