

DST20-A102P

Miniaturized strain sensor for harsh industrial applications

Article number: 11231318

Overview

- Measuring range $\pm 1000 \mu\text{m/m}$
- Small dimensions 28x12x10 mm
- Sensor made of stainless steel, protection class IP65
- For static and dynamic measurements
- Output signal 1.0 mV/V
- Connector M5, 4 pin, male



Technical data

General data

Nominal strain	0 ... 1000 $\mu\text{m/m}$
Non-linearity	< 0.5 %
Repeatability	< 0.1 %
Mechanical mounting	2 x M4 screws

Mechanical data

Fatigue strength	>10 Mio cycles at 0...100% FS
Sensor stiffness	130 N @ 1000 $\mu\text{m/m}$
Weight	13 g
Material sensor body	Stainless steel, 1.4542
Material housing	Stainless steel, 1.4301
Compensated for thermal expansion coefficient	$10.9 \cdot 10^{-6} 1/\text{K}$
Electrical connection	M5, 4 pin, male

Environmental conditions

Operating temperature range	-40 ... 85 °C
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Environmental conditions

Storage temperature range	-40 ... 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	mV/V
Signal polarity positive	Tension
Nominal sensitivity	1.0 mV/V
Bridge resistance	350 Ω
Supply voltage	0.5 VDC ... 7 VDC

Compliance and approvals

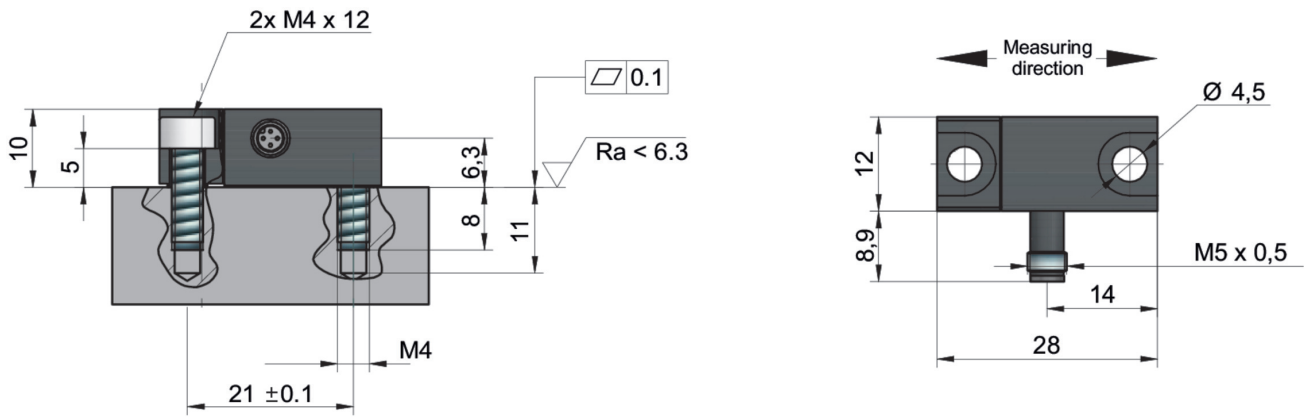
UL listed	E217824
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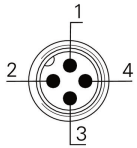
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Dimensional drawings (mm)



Electrical connection



- 1 +Vs
- 2 Sig +
- 3 -Vs
- 4 Sig -