

DST20

Miniaturized strain sensor for harsh industrial applications

DST20-A###P

Overview

- Small dimensions 28x12x10 mm
- Sensor made of stainless steel, protection class IP65
- Measuring ranges +/- 500 and 1000 µm/m
- For static and dynamic measurements
- Output signal 1.0 mV/V
- Connector M5, 4 pin, male



Technical data

general data

Nominal strain	0 ... 1000 µm/m
Non-linearity	< 0.5 %
Repeatability	< 0.1 %
Mechanical mounting	2 x M4 screws

electrical data

Output signal	mV/V
Nominal sensitivity	1.0 mV/V
Bridge resistance	350 Ω
Supply voltage	0.5 VDC ... 7 VDC
Signal polarity positive	Tension

mechanical data

Fatigue strength	>10 Mio cycles at 0...100% FS
Sensor stiffness	130 N @ 1000 µm/m 200 N @ 500 µm/m
Weight	13 g
Material sensor body	Stainless steel, 1.4542

mechanical data

Material housing	Stainless steel, 1.4301
Compensated for thermal expansion coefficient	10.9 x 10 ⁻⁶ 1/K
Electrical connection	M5, 4 pin, male

environmental conditions

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

compliance and approvals

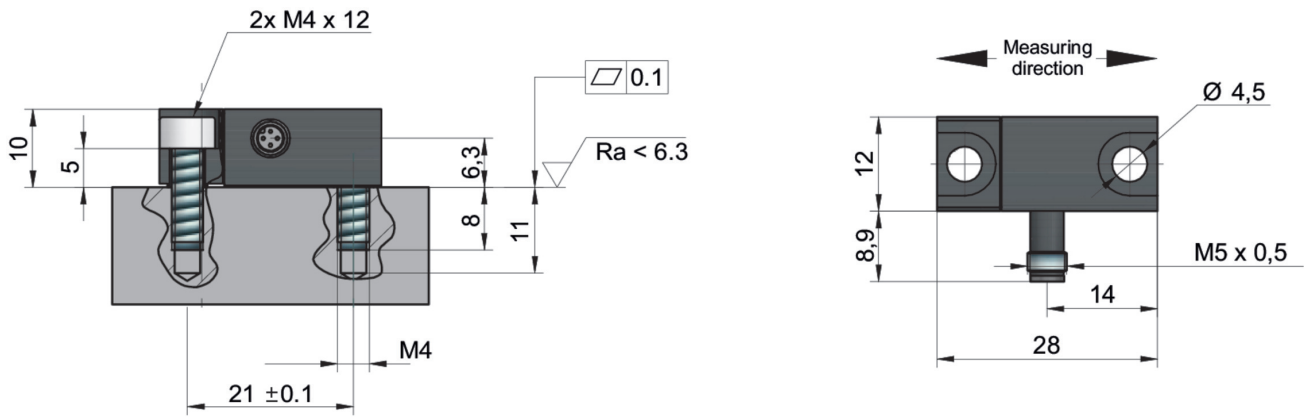
UL listed	E217824
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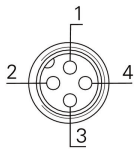
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Dimensional drawings (mm)



Electrical connection



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

Ordering key - Configuration possibilities see website

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Product family Miniaturized strain sensor for harsh industrial applications	DST20				
Version Soft mechanics, 2 x M4 screws, M5 plug			A		
Measuring range 500 µm/m					500
1000 µm/m					102
Output signal Passiv					P