

# DST53-A102L

Performance strain sensor with IO-Link interface

Article number: 11242320

## Overview

- Measuring range  $\pm 1000 \mu\text{m/m}$
- IO-Link interface for individual, application specific parameterization
- Minimal influence on the machine structure due to low stiffness
- Integrated amplifier electronics
- Output signal IO-Link, 2 x I/O
- Bore hole distance 53 mm
- M12 connector, 5 pin



## 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
Protection class EN 60529, ISO20653	IP 65

### Environmental conditions

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 $\text{g}^2/\text{Hz}$
Shock IEC 60068-2-27	50 g / 11 ms, 100 g / 6 ms

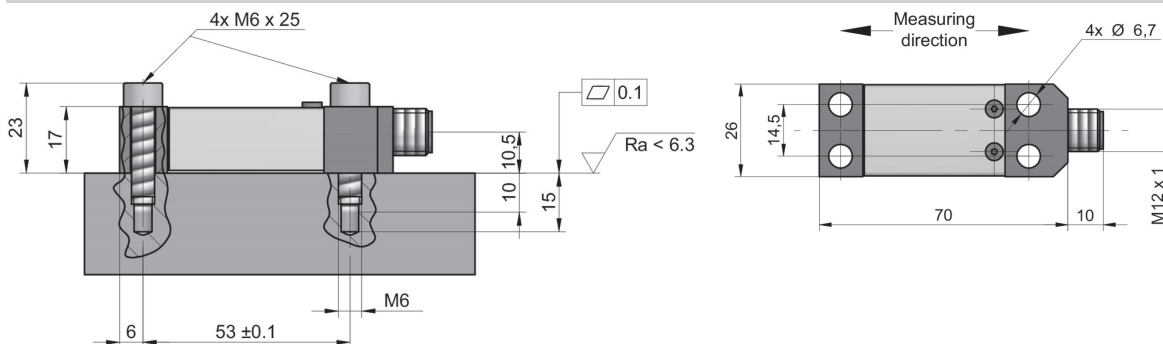
### Electrical data

Output signal	IO-Link
Signal polarity positive	Tension
Bridge resistance	350 $\Omega$
Supply voltage	18 ... 30 VDC
Current consumption	< 40 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

### Compliance and approvals

Conformity	CE UL
------------	----------

## Dimensional drawings (mm)



# DST53-A102L

Performance strain sensor with IO-Link interface

Article number: 11242320

## Electrical connection

Pin-number	Signals
1	L+
2	DI/DQ
3	L-
4	C/Q
5	n. c.

