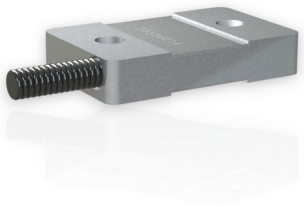
Strain Sensor DA70 PUR

Item number: 568



Highlights

- Connection cable is optionally designed as a PUR cable or protected with an additional corrugated conduit
- galvanized

The strain sensor DA70 is suitable for strain and force measurement on machine elements under rough conditions. Installation is done quite simply by screwing the sensor with 2 screws M10 on an even material surface.
The connection cable is protected by a non-crushable spiral tube. The areas of application are, for example, force monitoring in agricultural and construction machinery, fill level measurement and strain data acquisition on machine elements. The temperature behavior and conversion factor depend on the geometrical and material pairing of sensor and component. The sensor is calibrated by subjecting the component to a known force.

The Strain sensor DA70e is implemented for the measurement of loads. Application areas are machines, buildings, vehicules, containers and silos. The strain on the surface of the constructional element is measured by the strain sensor due to the bolted-assembly.
The DA 70 is also available with integrated evaluation electronics.

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Stand: 18.08.2025

Technical Data

Basic Data		Unit
Type	Dehnungsaufnehmer	
Nominal strain	300	µm/m
Operating strain	150	%FS
Fastening	schrauben (M10)	
Material	tool steel	
Surface	electrogalvanized	
Dimensions	78 x 40 x 17 mm³	

Electrical Data		Unit
Input resistance	350	Ohm
Tolerance input resistance	50	Ohm
Output resistance	350	Ohm
Tolerance output resistance	50	Ohm
Insulation resistance	5	GOhm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V

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Accuracy Data		Unit
Relative linearity error	1	%FS
Relative zero signal hysteresis	1	%FS
Temperature effect on zero signal	0.5	%FS/10K
Temperature effect on characteristic value	1	%RD/10K
Relative creep	1	%FS

Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	60	°C
Operating temperature range from	-25	°C
Operating temperature range to	85	°C
Environmental protection	IP67	

Strain gauge is used with k-factor = 2.

Pin assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply	brown	
	-Us	negative bridge supply	white	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	

Screen - transparent. Pressure load: positive output signal

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