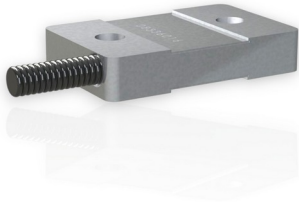


Strain Sensor DA70i 010

Item number: 14924



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 strain on the surface of the constructional element is measured by the strain sensor due to the bolted-assembly.

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 DA 70 is also available with integrated evaluation electronics.

The integrated electronic GSV-13q provides an output signal of 0,05...10 volts or alternatively 4...20 mA proportional to the applied force on the constructional element. The electronic GSV-13q offers a digital input for automatic zero adjustment and a digital input for autoscale.

Technical Data

Basic Data		Unit
Type	Dehnungsaufnehmer	
Nominal strain	300	µm/m
Operating strain	150	%Fn
Material	tool steel	
Surface	electrogalvanized	
Dimensions	78 x 40 x 17 mm ³	
Electrical Data		Unit
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
Analog Output		Unit
Number of analog outputs	1	
Voltage output from	0.05	V
Voltage output to	10	V
Output resistance - voltage output	50	Ohm
Zero adjustment to	0.1	V
Measuring Frequency		Unit
Data frequency from	1000	Hz

Supply		Unit
Supply voltage from	14	V
Supply voltage to	28	V
Current consumption from	20	mA
Strain gauge bridge supply	3	V

Strain gauge is used with k-factor = 2.

Pin assignment

Channel	Symbol	Description	Wire color	PIN
	Ub	Supply voltage (depends on variant)	brown	
	GND	Ground power supply	white	
	Ua (Out)	Output signal 4... 20mA / 0... 10V / 0... 5V	green	
	Tara (Ta)	Control input for zero balance	yellow	
	Scale (Sc)	Control input for amplification factor	grey	
	GND	Ground, signal	pink	
		Shield	transparent	