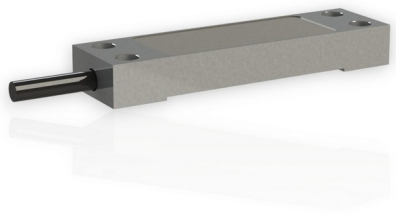
Strain Sensor DA90i 010

Item number: 11315



Thanks to its closed design and stainless steel construction, the DA90 strain transducer is suitable for measuring strain and force on machine elements and components in harsh environments.

The transducer is installed by screwing it on with 4 M6 screws. Areas of application include force monitoring, level measurement and strain measurement on steel components. Mechanical loads on the component are transferred to the strain transducer by means of frictional connection via the 4 fastening screws and converted into an electrical output signal.

The output signal, temperature behavior and transmission factor depend on the geometry and material pairing of the strain transducer and component. The transducer is therefore calibrated by applying a known force to the component.

The DA90i strain transducer contains GSV-6L 0...10 V or 4...20 mA evaluation electronics with zero setting and scaling function as well as threshold value output.

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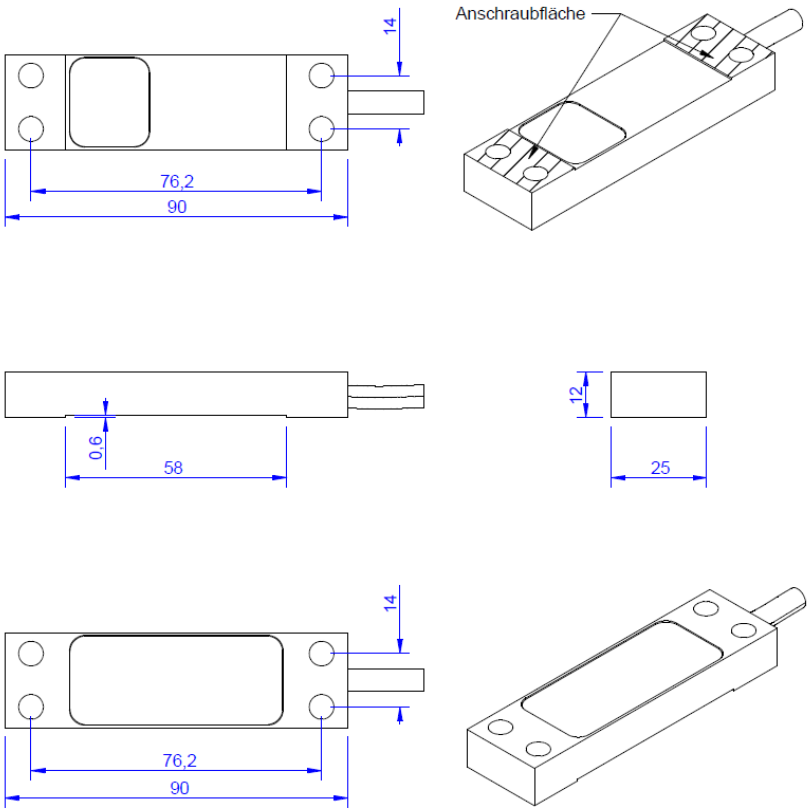
Stand: 17.12.2025

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Dehnungsaufnehmer	
Nominal strain	100	µm/m
Operating strain	400	µm/m
Material	tool steel	
Surface	electrogalvanized	
Dimensions	90 x 25 x 12 mm³	

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
Relative creep	1	%FS
Analog Output		**Unit**
Voltage output from	-10	V
Voltage output to	10	V
Output resistance - voltage output	50	Ohm
Current output from	0	mA
Current output to	20	mA
Zero adjustment to	0	V

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Measuring Frequency		Unit
Data frequency from	1	Hz
Data frequency to	25000	Hz
Sampling frequency	50	kHz

Supply		Unit
Supply voltage from	9	V
Supply voltage to	29	V
Current consumption from	22	mA
Strain gauge bridge supply	3	V

Pin assignment

Channel	Symbol	Description	Wire color	PIN
	Ub	Supply voltage (24V or 12V DC)	brown	1
	GND	Connect ground, supply voltage	white	2
	Ua	Output signal 4...20mA / 0...10V / ±10V	green	3
	Tara	Control input for zero balance	yellow	4
	Scale	Control input for amplification factor	grey	5
	SW	Threshold output	pink	6
	GND	Connect ground, signal	blue	7
		shiled (is not connected with the housing)	transparent	

With integrated electronics GSV-15L / GSV-6L.Ground signal connected to ground supply internally.

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