Strain Sensor DA120

Item number: 694



Highlights

- is suitable for measurements in harsh environments due to its enclosed design
- Easy installation by screwing on with 4 M6 screws

Thanks to its closed construction, the DA120 strain sensor is suitable for measuring strain and force on machine elements and components in harsh environments.

Easy installation by screwing on with 4 M6 screws. Mechanical strain on the component is transferred to the strain sensor using via 4 fixing screws and is transformed into an electrical output signal.

Example applications include force monitoring level measurement.

Output signal, thermal behaviour and transmission ratio depend on the geometry and combination of materials. Therefore, calibration is performed by applying of a force.

The “DA120e” strain sensor includes an integrated GSV-15L measuring amplifier. The measuring amplifier. has a voltage- or current output and a threshold value output. Amplification, zero point and threshold value can each be programmed via a digital input.

The Strain sensor is applied for the measurements of load. Application fields are machines, buildings, vehicules, container and silos.
The Strain sensor is fastened with 4 screws M6 on the constructional element. The strain on the surface is transmitted to the strain sensor by "force-fit".

Optional special version

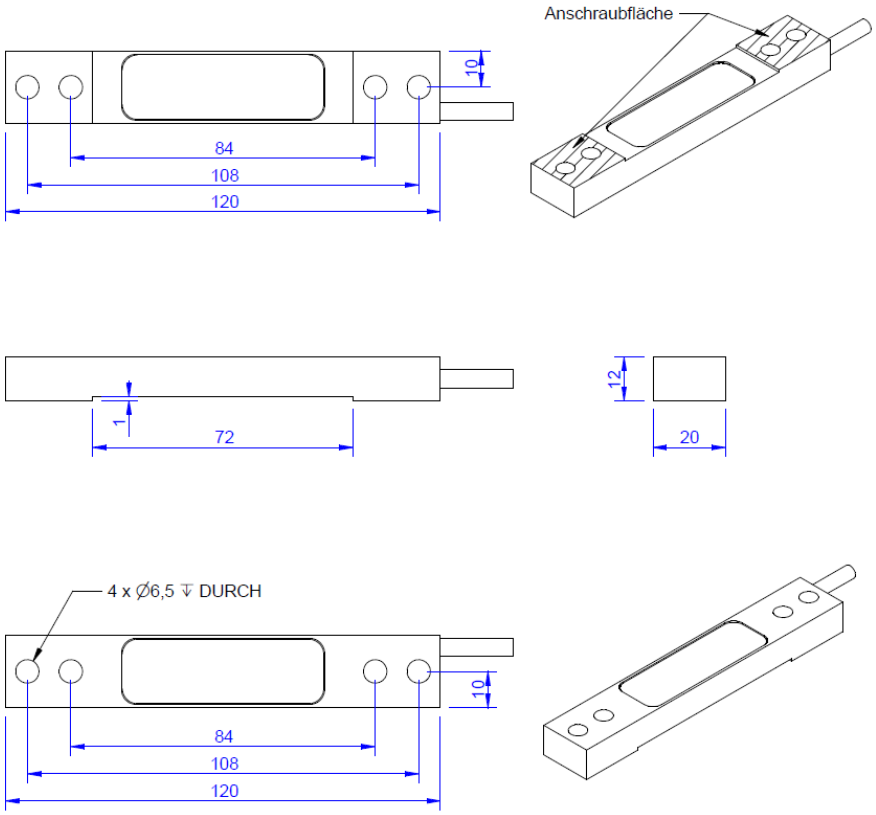
- Protection class IP68: from rated force 200 N
- Pressure range up to 8 bar

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Stand: 27.08.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Dehnuhgsaufnehmer	
Nominal strain	100	µm/m
Operating strain	400	µm/m
Material	tool steel	
Surface	electrogalvanized	
Dimensions	120 x 20 x 12 mm³	

Electrical Data		Unit
Input resistance	350	Ohm
Tolerance input resistance	1	Ohm
Output resistance	350	Ohm
Tolerance output resistance	1	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	2.5	V
Operating range of excitation voltage to	10	V
Characteristic value range from	0.4	mV/V
Characteristic value range to	0.5	mV/V

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

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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	

Pressure load: positive output signal.
Shield- transparent.

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