

DA90 ±100



Description

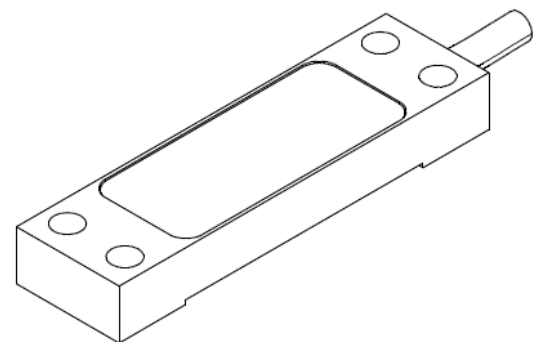
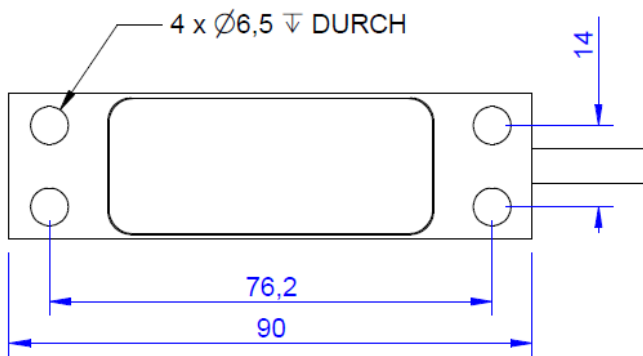
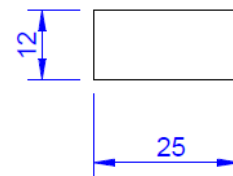
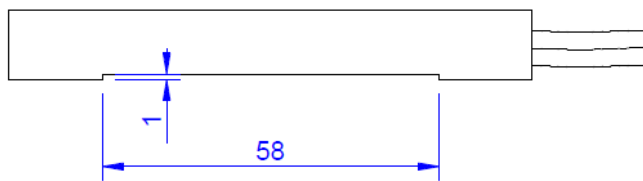
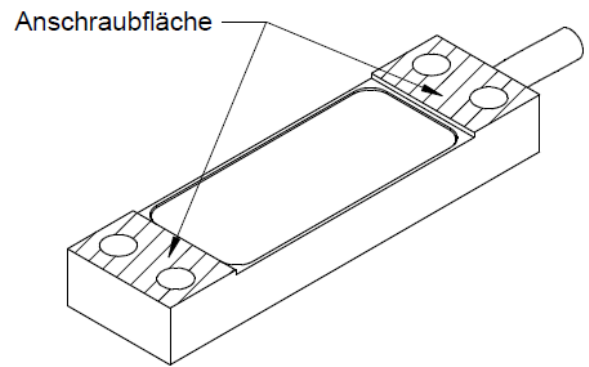
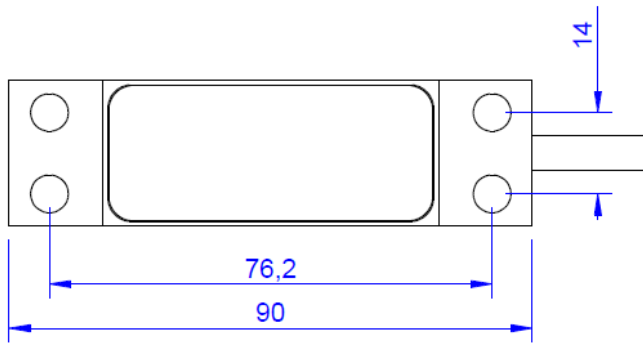
Thanks to its closed construction and stainless steel design, the DA90 strain sensor is suitable for measuring strain and force on machine elements and components in harsh environments.

The strain sensor must be screwed with 4 bolts M6. Example applications include force supervision, fill level measurement and strain analysis on steel components. Mechanical strain on the component is transferred to the strain sensor using forced closure via the 4 fixing screws and transformed into an electrical output signal.

Output signal and thermal behaviour and transmission ratio depend on the geometry and combination of materials of the strain sensor and component. Therefore, the sensor is calibrated by subjecting the component to a certain degree of force.

The DA90e strain sensor contains a 0...10V or 4...20mA measuring amplifier with zero-setting and scale function, as well as threshold value output.

Dimensions



Technical Data

Basis Data

Type	Dehnungsaufnehmer
Nominal strain	100 $\mu\text{m/m}$
Operating strain	400 $\mu\text{m/m}$
Material	Tool steel
Surface	electrogalvanized

Electrical Data

Input resistance	350 Ohm
Tolerance input resistance	1 Ohm
Output resistance	350 Ohm
Tolerance output resistance	1 Ohm
Insulation resistance	5×10^9 Ohm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V
characteristic value range min	0.3 mV/V
characteristic value range max	0.4 mV/V

Precision

Accuracy class	0,5%
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Connection Data

Connection type	4 conductor open
Name of the connection	Unitronic FD CP Plus 4x0,14
Cable length	5 m



Pin Configuration

Symbol	Description	Wire colour
+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.