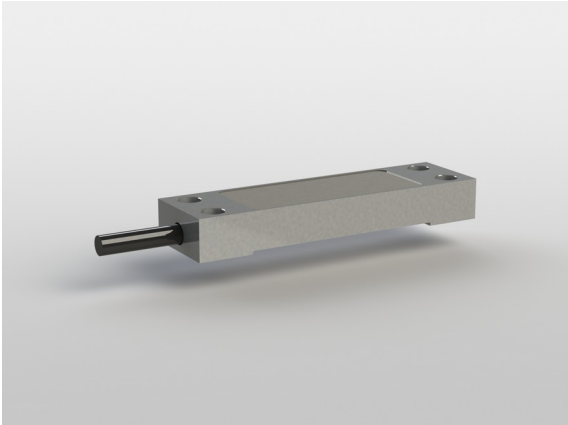


Strain Sensor DA90

Item number: 3728



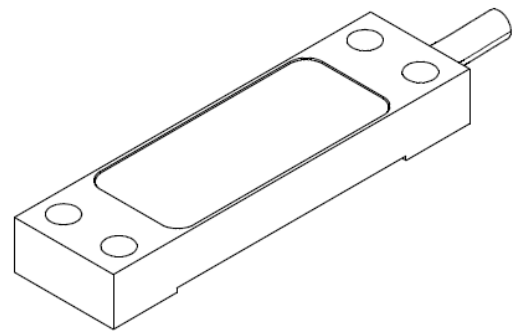
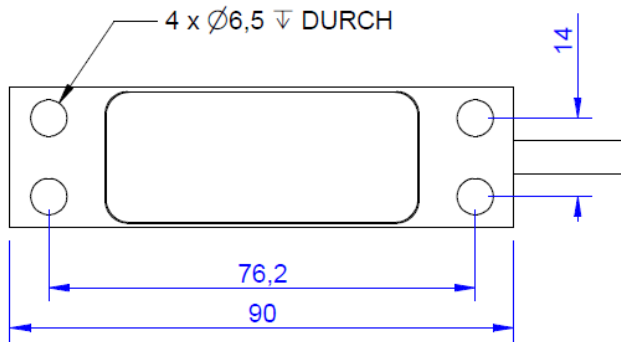
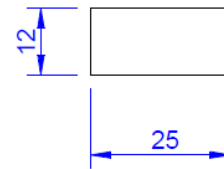
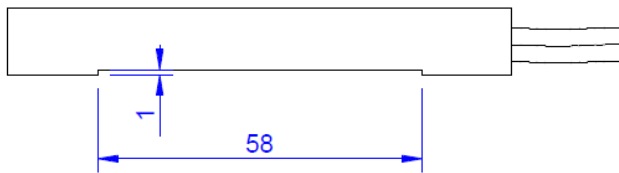
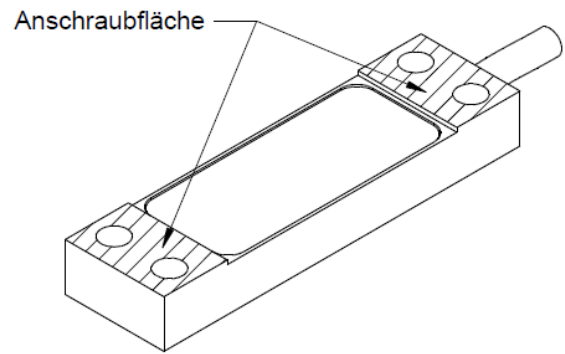
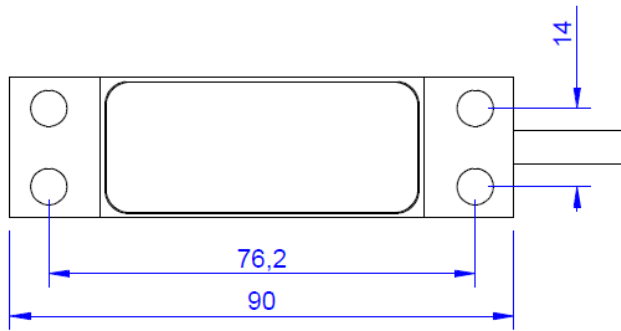
Thanks to its closed construction and stainless steel design, the DA90 strain sensor is suitable for measuring strain and force on machine elements and components in harsh environments.

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.

Technical Drawing



Technical Data

| Basic Data | | Unit |
|------------------|-----------------------|------|
| Type | Dehnungsaufnehmer | |
| Nominal strain | 100 | µm/m |
| Operating strain | 400 | µm/m |
| Material | tool steel | |
| Surface | electrogalvanized | |
| Dimensions | 90 mm x 25 mm x 11 mm | |

| 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 | 1 | V |
| Operating range of excitation voltage to | 10 | V |
| Characteristic value range from | 0.3 | mV/V |
| Characteristic value range to | 0.4 | mV/V |

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.