

## DA120 $\pm 100\mu\text{m}/\text{m}$



### Description

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.

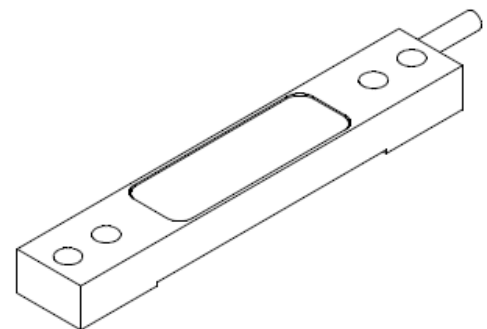
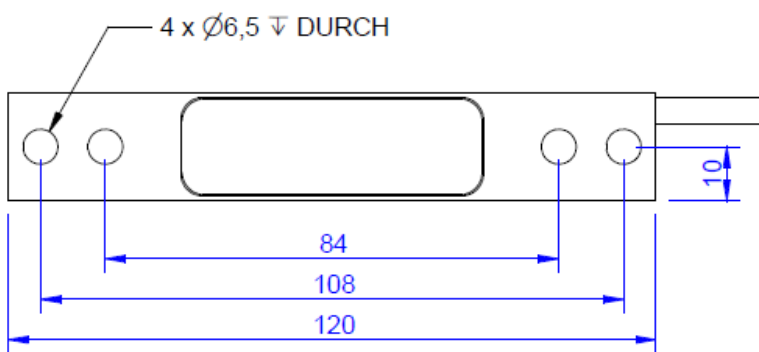
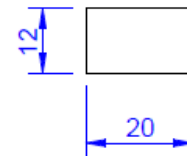
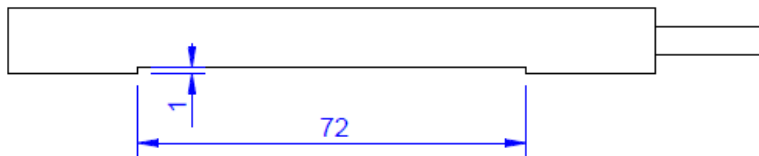
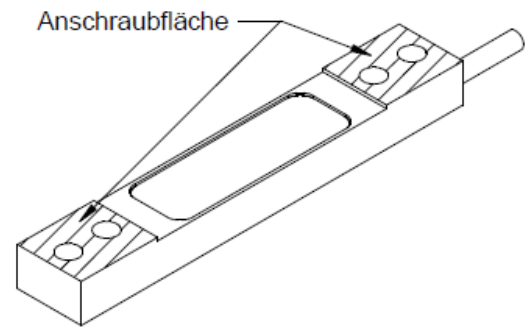
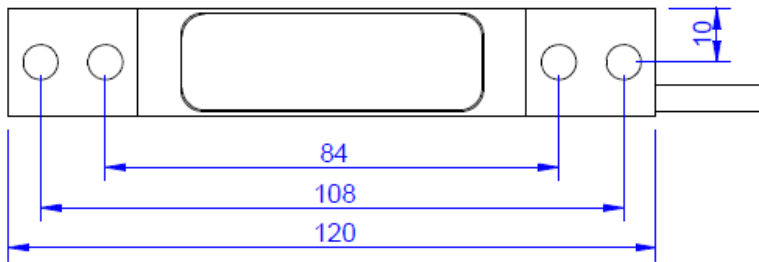
Output signal, thermal behaviour and transmission ratio depend on the geometry and combination of materials. Therefore, calibration is performed by applying of a force.

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, vehicles, 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".

## Dimensions



## Technical Data

### Electrical Data

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 f	2.5 ... 5 V
Operating range of excitation voltage f	2.5 ... 10 V
characteristic value range min	0.4 mV/V
characteristic value range max	0.5 mV/V

### Connection Data

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

### Basis Data

Type	Dehnhgtaufnehmer
Nominal strain	100 µm/m
Operating strain	400 µm/m
Material	Tool steel
Surface	electrogalvanized





## 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.*

## accessories

Description	Description
 Aktivator-11	Spray 200ml; Activator solvent-based for anaerobic adhesives;
 Loxeal-8521	Retainer anaerobic for DA70, DA90, DA120, high-strength; -55°C ...+ 150°C;