

DA70 PUR ± 300



Description

The strain sensor DA70 is suitable for strain and force measurement on machine elements under rough conditions. Installation is done quite simply by screwing the sensor with 2 screws M10 on an even material surface.

The connection cable is protected by a non-crushable spiral tube. The areas of application are, for example, force monitoring in agricultural and construction machinery, fill level measurement and strain data acquisition on machine elements. The temperature behavior and conversion factor depend on the geometrical and material pairing of sensor and component. The sensor is calibrated by subjecting the component to a known force.

The Strain sensor DA70e is implemented for the measurement of loads. Application areas are machines, buildings, vehicles, containers and silos. The strain on the surface of the constructional element is measured by the strain sensor due to the bolted-assembly.

The DA 70 is also available with integrated evaluation electronics.

Technical Data

Electrical Data

Input resistance	350 Ohm
Tolerance input resistance	50 Ohm
Output resistance	350 Ohm
Tolerance output resistance	50 Ohm
Insulation resistance	5 GOhm
Rated range of excitation voltage f	2.5 ... 5 V
Operating range of excitation voltage f	1 ... 10 V

Precision

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

Connection Data

Connection type	4 conductor open
Name of the connection	2 x 2 x 0,25 PUR
Cable length	5 m

Temperature

Rated temperature range f	-10 ... 60 °C
Operating temperature range f	-20 ... 70 °C
Storage temperature range f	-20 ... 85 °C
Environmental protection	IP65

Basis Data

Type	Dehnungsaufnehmer
Nominal strain	300 µm/m
Operating strain	150 %FS
Fastening	schrauben (M10)
Material	Tool steel
Surface	electrogalvanized

Strain gauge is used with k-factor = 2.





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

Screen - transparent.

Pressure load: positive output signal

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;