Measuring Wedge
Piezoelectric force sensor technology

Standard setting  Maximum extended wedge

Performance
Sensitivity  -4.2 pC/N
Measurement range  -7.5 bis +7.5 kN (pre-load: 10 kN)*
0 bis 15 kN (pre-load: 3 kN)
Response threshold  < 0.01N ≙ 0.01nm ≙ 0.0012με
Fastening torque  ca. 1.7 Nm* (allowed max. 1.9 Nm)

Environmental conditions
Enclosure rating  IP 68
oil- and coolant-proof
Temperature range  –50 bis 80 °C
-58 to 176 °F

Physical connectors
Cable  Coaxial, shielded cable
Protective sleeve  PU, Ø7 mm
Bending radius  15 mm

Technical data
All technical data apply to the fitting location at 100% force transmission. The measuring wedges are corrosion-resistant.

* Recommended, because with this pre-stress torque the wedge measures stress as well as relief of the appropriate machine part.
Installation examples in the force bypass

Owing to the force bypass measuring principle, forces acting on the structure of the machine or fixture can be much larger than forces acting or measured on the sensor fitting point.

We are glad to offer advice or analysis to determine the fitting locations and number of sensors free of charge. Just send us your blueprints, which we will treat confidentially.

Part number

1D measuring wedge, Size 20

- Cable outside, straight
  Part No.: 0.11.032.1DKMAG

- Cable outside, left
  Part No.: 0.11.032.1DKMAL

- Cable outside, right
  Part No.: 0.11.032.1DKMAR

- Cable inside
  Part No.: 0.11.033.1DKMIG

Cable configuration

- PU-protective sleeve, ø7 mm
- Minimum bending radius R = 15 mm
- Standard length L = 2 m, can be cut to length (longer cables on request)
- Alternative PX 4 metal braided protective sleeve

Sleeve contains: 1 coaxial cable ø2 mm

In case of high mechanical stress in the working chamber (e.g. due to hot chips), an additional metal protection hose for the sensor cable with a length of 1.3 m is recommended.

Part No.: 0.20.805.PHPU4M

Scope of delivery

- Measuring wedge
- Fitting set for cable input at the charge amplifier

(All dimensions in mm. All dimensions given in brackets ( ) refer to a measuring element projecting the maximum distance.)