

Force Sensor KS180 5kN/97

Item number: 9259

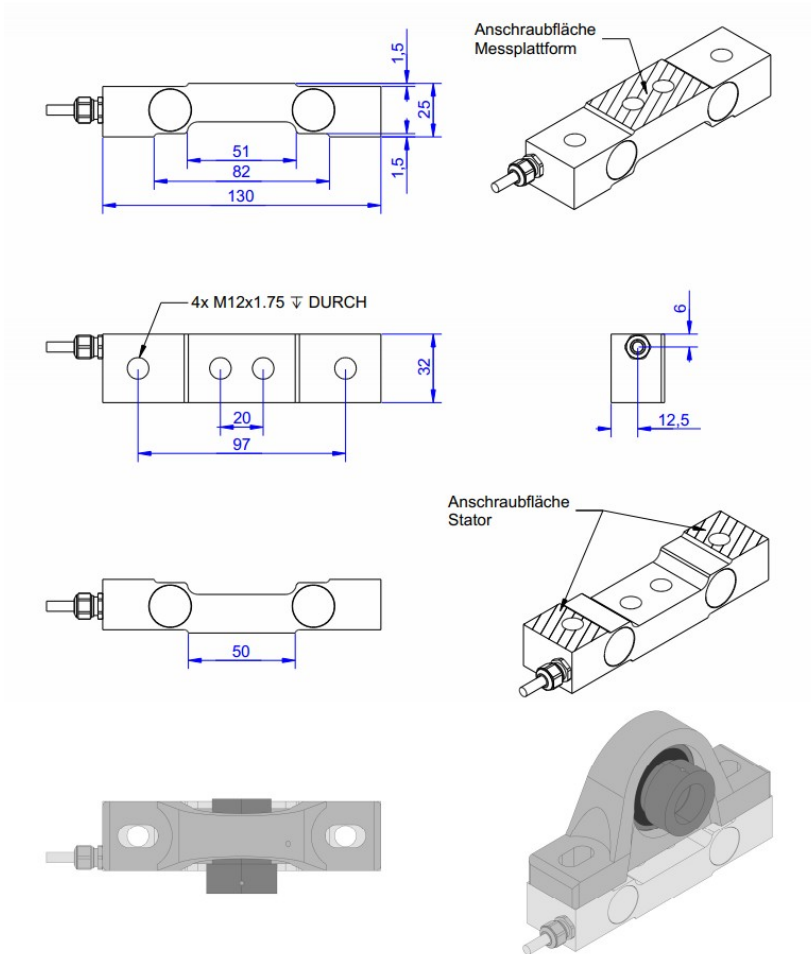


The KS180 force sensor is suitable for measuring forces between two bearing surfaces.

For example, this force sensor is used to measure the bearing force of pedestal bearings. The dimensions of the force sensor match the standard "LASE" pedestal bearing housing units by INA.

Other dimensions can be produced on request according to designs.

Technical Drawing



Technical Data

| Basic Data | | Unit |
|----------------------------|--|------|
| Type | Kraftsensor | |
| Force direction | Tension/Compression | |
| Rated force F _x | 5 | kN |
| Force introduction | Internal thread | |
| Dimension 1 | 2xM12x1,75 | |
| Sensor Fastening | Internal thread | |
| Dimension 2 | 2xM12x1,75 | |
| Operating force | 150 | %FS |
| Rated displacement | 0.1 | mm |
| Lateral force limit | 8 | kN |
| Surface | Galvanisch verzinkt | |
| Dimensions | 130mm x 3mm x 25mm...200mm x 54mm x 34mm | |
| Height | 25 | mm |
| Length or Diameter | 130 | mm |
| Bending moment limit | 100 | Nm |
| Variants | 5kN... 30kN | |

| Electrical Data | | Unit |
|--|------|-----------|
| Input resistance | 390 | Ohm |
| Tolerance input resistance | 40 | Ohm |
| Output resistance | 350 | Ohm |
| Insulation resistance | 2 | 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 |
| Zero signal | 0.05 | mV/V |
| Rated output | 1 | mV/V / FS |

| Accuracy Data | | Unit |
|--|------|-------|
| Accuracy class | 0,5 | |
| Relative linearity error | 0.1 | %FS |
| Relative zero signal hysteresis | 0.1 | %FS |
| Temperature effect on zero signal | 0.01 | %FS/K |
| Temperature effect on characteristic value | 0.02 | %RD/K |
| Relative creep | 0.1 | %FS |

| Environmental Data | | Unit |
|----------------------------------|------|------|
| Rated temperature range from | -10 | °C |
| Rated temperature range to | 70 | °C |
| Operating temperature range from | -10 | °C |
| Operating temperature range to | 85 | °C |
| Storage temperature range from | -10 | °C |
| Storage temperature range to | 85 | °C |
| Environmental protection | IP65 | |

Abbreviation : RD: „Reading“; FS: „Full Scale“;1) The exact nominal sensitivity is indicated in the test report.

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 | |

Screen - transparent. Pressure load: positive output signal