

Product Description

Tension Sensor KAT

Special Features

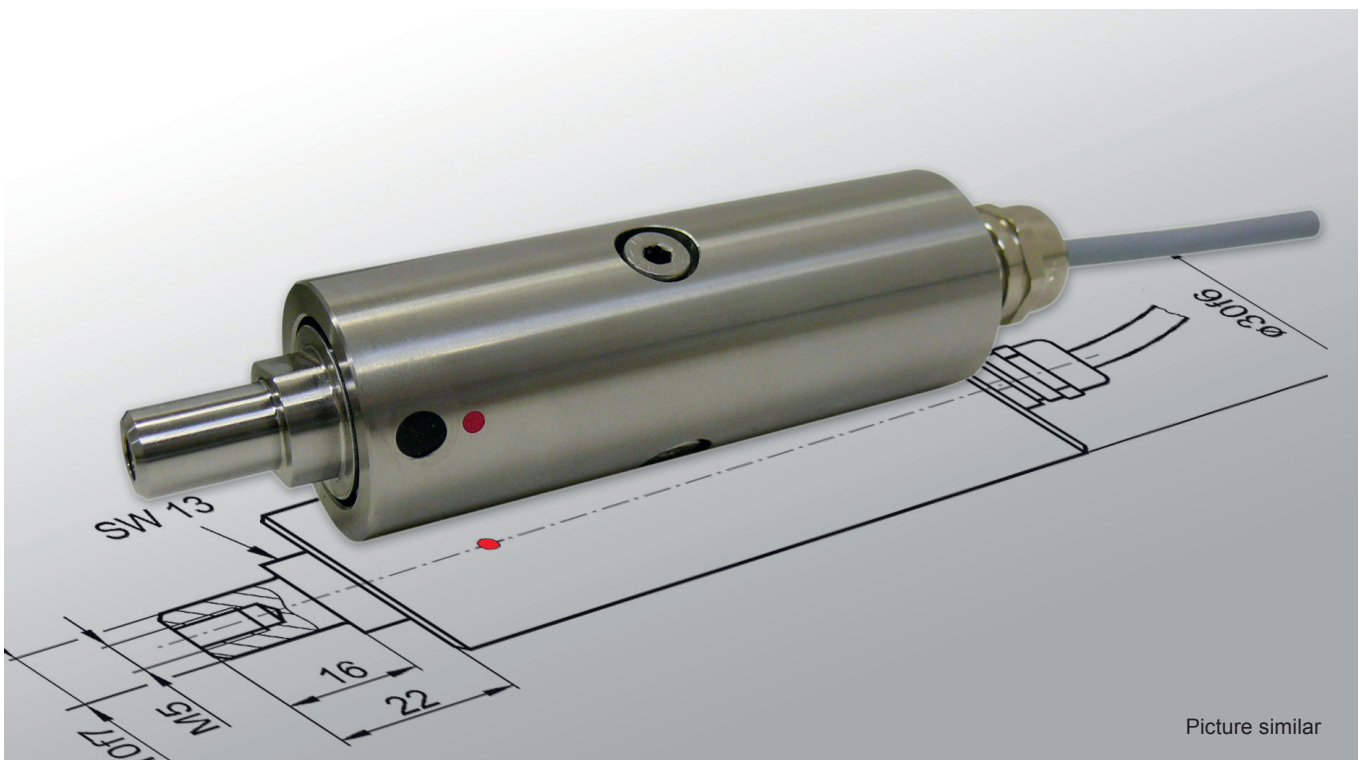
- Easy assembly and small space requirement
- Overload protection utilizing mechanical stops
- Measuring range from 25 to 630 N
- Combined error 0,5

Scope of Supply

Force sensor with 5 meters fixed cable, connection variant T

Additional Accessories

- Clamp device



Picture similar

Application

Tension force sensors of the type KAT were specifically developed for direct measurement of forces acting in cables, wires, ropes, or tapes. They can best be installed in places where the design of the machine already requires the use of deflection rollers or guide rollers. This is e. g. the case in situations such as

- Cable making machines
- Stranding machines
- Foil capacitor manufacturing
- Label printing machinery etc.

By using a screw instead of a roller to lead the force into the shaft, the tension sensor KAT can also be used to measure compression forces.

Strain gauges applied to the active surfaces of the cantilever beam measure the acting forces.

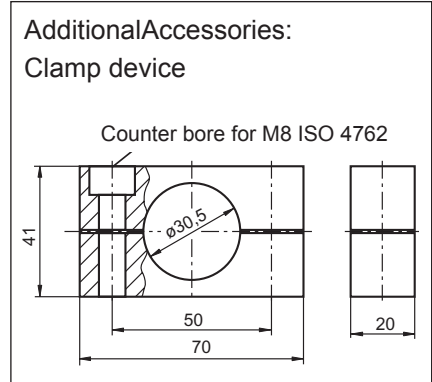
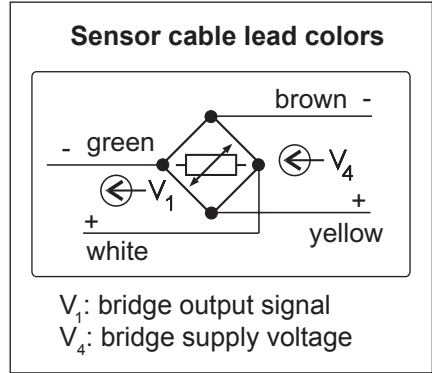
The strain gauge bridge is supplied with stabilized DC voltage from a strain gauge amplifier such as the Measuring Amplifiers **AME2** or **MV125** for further processing of the measuring signals.

The signals at the output terminals of the amplifier are proportional to the tensile force in the material. The signals can be digitally displayed or used as actual values in closed loop controls.

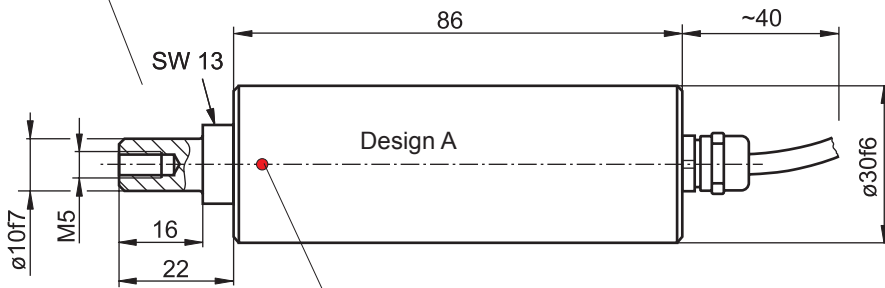
Mechanical stops limit the measuring deflection and provide overload protection.

The axial cable entry facilitates mounting the sensor to the machine frame.

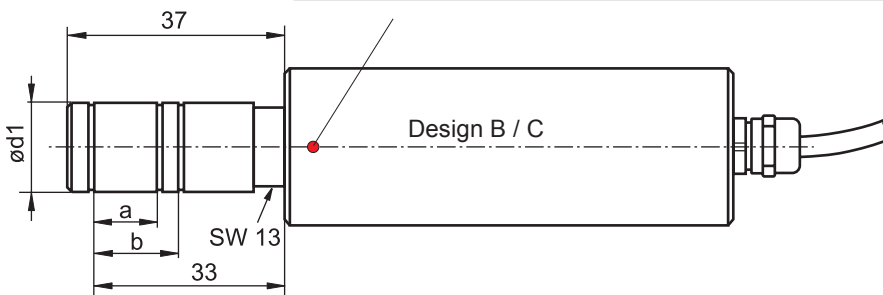
Technical Data	Values (%) based on nominal force
Nominal force (Measuring range)	25, 40, 63, 100, 160, 250, 400, 630 N
Max. operating force	160 %
Nominal rating	1,5 mV / V
Combined error	0,5 %
Nominal ambient temperature	+ 10 ... + 60° C
Operational temperature range	- 10 ... + 70° C
Nominal resistance of the strain gauge bridge	350 Ω
Max. bridge supply voltage	10 VDC
Enclosure protection	IP 52
Sensor cable (standard)	PVC, grey, 4 x 0,14 mm ²



Attention! When assembling axes adapters, pulleys or similar devices no torque should act on the internal measuring elements. For this reason assembly should be made before installation into a machine; use wrench for countering.



Absolutely pay attention:
Red dot in measuring direction!



Design	d1	Version of bearing	a	b
A	10 f7	6000 / 6300	-	-
B	15 f7	6002 / 6302	9	13
C	17 f7	6003 / 6303	10	14

Ordering Example:
KAT-A200-T

- Option
- Nominal force in N
- Shaft design
- Typ