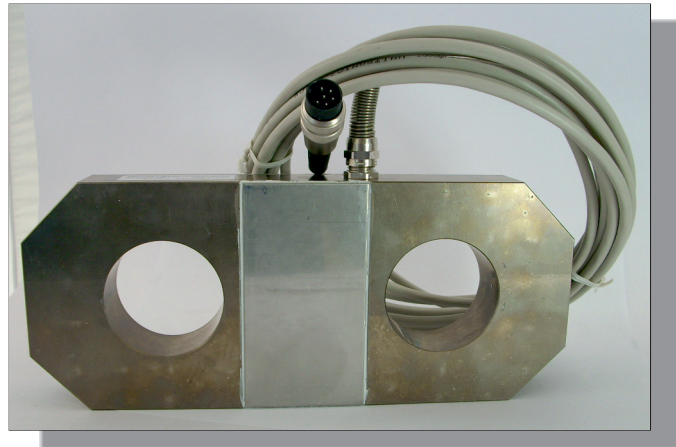


Force Transducer KWZ-100-16t-1.10

article-no: VX34021121
serial-no: key 43G



description

The tensile force transducer KWZ-100 measures the force along the longitudinal axis.

Tensile forces can be measured at lifts, cranes, gondola as well as tensions in mast, towers and platforms amongst others.

The tensile force transducer KWZ-100 is designed as a double tie. It has a 50,6 mm diameter borehole on both sides for easy installation with bolts or the like. Using shackles, which are available accessories, the transducer can simply be clipped into load hooks, travellers, eyes, chain links and other slinging means.

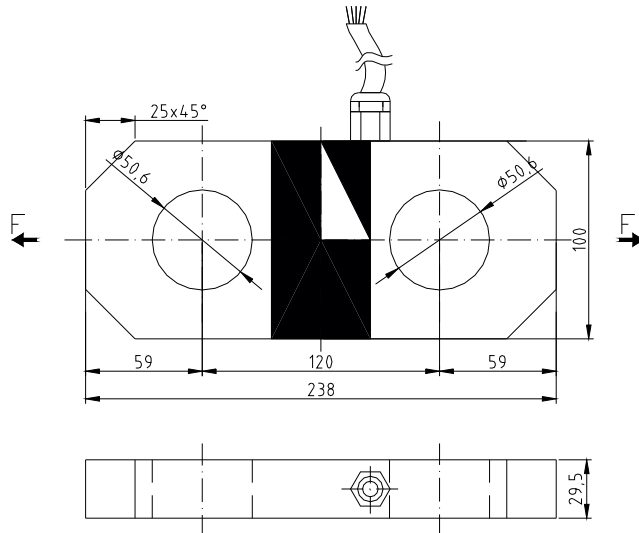
The application chamber for the strain gauge is closed with plates and sealed for protection against mechanical and chemical damage.

Strain gauge full bridges measure the deformation in the measurement chamber due to the tensile forces acting on the transducer. An integrated amplifier delivers the measuring signal of 1 to 9 mA.

The shield of the cable is connected with the force transducer.

The KWZ-100 is provided for the direct coupling to a control system or a comparator switch.

specification



mechanical execution

diameter, force transmission and mounting see assembly drawing

weight approx. 3,8 kg
 material stainless steel
 degree of protection IP 67

KWZ **100-16t**
 nominal force / nominal load 16000 kg
 max. overload range / force limit 175 % of nominal force
 breaking force 350 % of nominal force

electrical execution

measuring signal (output) 1 - 9 mA
 operating voltage 12 - 24 V DC $\pm 20\%$
 current consumption max. 35 mA
 calibration tolerance $< 0,50\%$ of final value*
 non-linearity $< 0,25\%$ of final value*
 hysteresis $< 0,15\%$ of final value*
 temperature coefficient:
 of zero signal $\leq 0,04\%$ of final value / K
 of the sensitivity $\leq 0,04\%$ of set point / K
 insulation resistance $> 5.000\text{ M}\Omega$
 nominal temperature range $-15\text{ }^\circ\text{C}$ to $+70\text{ }^\circ\text{C}$
 operating temperature range $-25\text{ }^\circ\text{C}$ to $+80\text{ }^\circ\text{C}^{**}$

cable and connection

cable length / cable type 5 m LiYCY 4 x 0,25 mm²
 cable end 6-pole connector (series 680)
 pin assignment
 PIN 1 measuring signal output I_m
 PIN 2/6 not connected
 PIN 3 ground / earth GND
 PIN 4 calibration signal (low active) CC***
 PIN 5 operating voltage U_B
 housing shielding (only in the case of metall casing and a shielded cable)

* These details are depending on the fit, the resistance moment and the installation length. They are reached with favorable values.

** only for the case that the cable is laid with fastening (depending on cable type)

*** This cable should be connected at the operating voltage unless the calibration signal is used. (only applicable to executions with amplifier)