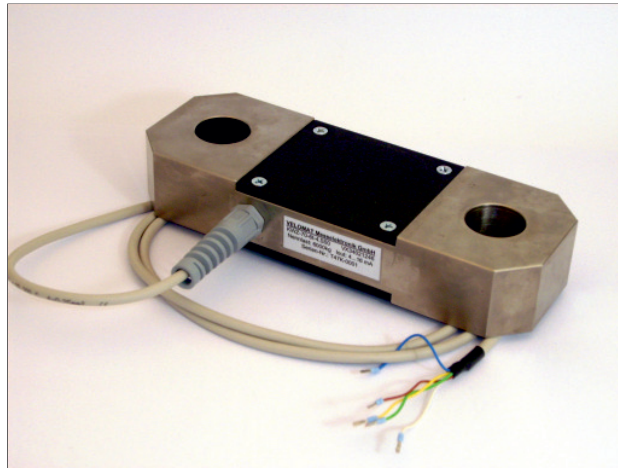


Force Transducer KWZ-70-6t-4.S50

article-no: VX34021246
serial-no: key 47K



description

The tensile force transducer KWZ-70 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-70 is designed as a double tie. It has a 26 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.

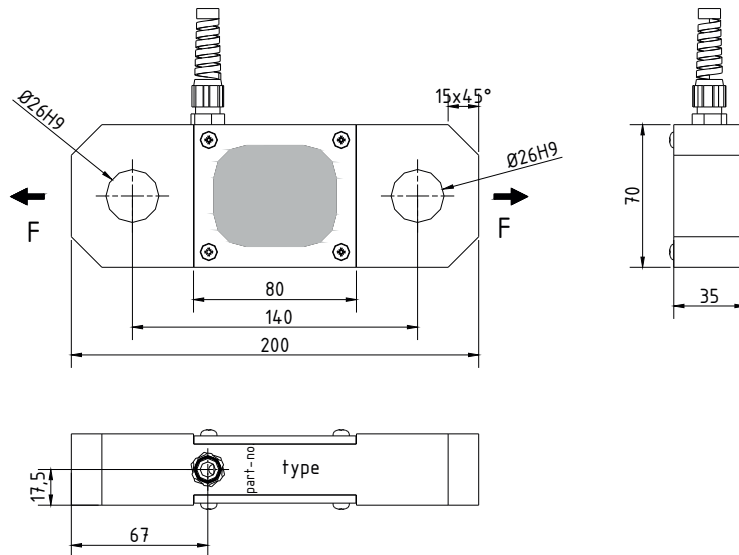
The strain gauge full bridge distributed on the measurement chambers measures the deformation resulting by tensile forces on the force transducer. An integrated amplifier delivers the measuring signal of 4 – 20 mA.

In the unloaded state the nominal output current can be produced by applying the calibration check signal (software calibration). This enables a check of the force transducer, amplifier and the following measuring device.

The KWZ-70 is provided for the direct coupling to a control system or a comparator switch.

The shield of the cable is not connected with the force transducer.

specification



mechanical execution

diameter, force transmission and mounting see assembly drawing

weight	approx. 2,6 kg
material	stainless steel
degree of protection	IP 67

KWZ	70-6t
nominal force / nominal load	6000 kg (= 16 mA)
max. overload range / force limit	150 % of nominal force
breaking force	400 % of nominal force

electrical execution

measuring signal (output)	4 - 20 mA (CC = 4 mA)
operating voltage	12 - 24 V DC ± 20 %
current consumption	max. 45 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 M Ω
nominal temperature range	-15 °C to +70 °C
operating temperature range	-25 °C to +80 °C

cable and connection

cable length / cable type	1,5 m SD 200C 4 x 0,25 mm ²										
cable end	wire-end-sleeve										
wiring connections	<table border="0"> <tr> <td>brown</td> <td>operating voltage UB</td> </tr> <tr> <td>green</td> <td>ground / earth GND</td> </tr> <tr> <td>yellow</td> <td>measuring signal output Im</td> </tr> <tr> <td>white</td> <td>calibration signal (low activ) CC***</td> </tr> <tr> <td>blue</td> <td>shielding (only in the case of a shielded cable)</td> </tr> </table>	brown	operating voltage UB	green	ground / earth GND	yellow	measuring signal output Im	white	calibration signal (low activ) CC***	blue	shielding (only in the case of a shielded cable)
brown	operating voltage UB										
green	ground / earth GND										
yellow	measuring signal output Im										
white	calibration signal (low activ) CC***										
blue	shielding (only in the case of 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)