

# Force Transducer KWZ-70-10t-4.50

article-no: VX34020443  
serial-no: key 20R



## description

The plate load cell works according to the principle of the strength measuring in the direction of the longitudinal axis.

Greater pulling forces can be included at lifts, cranes, gondolas and also bracings at masts, towers, platforms etc.

The plate load cell KWZ-70 is executed as a double traction element. It has got a drilling with 26 mm of diameters on both sides for a simple assembly with bolts or similar.

Simply putting in at load hooks, trolleys, eyes, chain-links or other stop means is possible about this one as accessories available clevis.

The application room for the strain gauge is locked and sealed up with plates and therefore protected from mechanical and chemical damages.

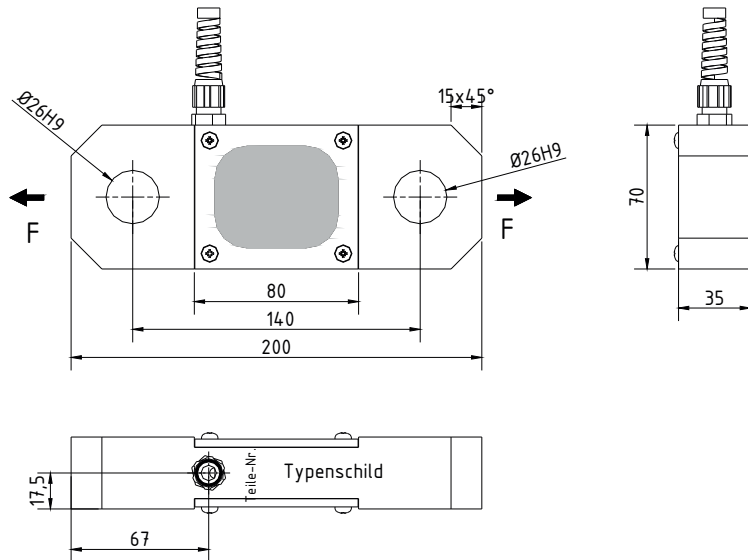
Strain gauges full bridges measure the deformation caused by shear forces on the bolt in the measuring chamber. An integrated amplifier delivers the measuring signal of 4 – 20 mA.

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 an automatic control or a controlling switch.

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

## specification



## mechanical execution

diameter, force transmission and mounting see assembly drawing

<b>weight</b>	approx. 3 kg
<b>material</b>	stainless steel
<b>degree of protection</b>	IP 67

<b>KWZ</b>	<b>70-10t</b>
<b>nominal force / nominal load</b>	10.000 kg
<b>max. overload range / force limit</b>	150 % of nominal force
<b>breaking force</b>	500 % of nominal force

## electrical execution

<b>measuring signal (output)</b>	4 - 20 mA
<b>operating voltage</b>	24 V DC $\pm 35\%$
<b>current consumption</b>	max. 50 mA
<b>calibration tolerance</b>	$< 0,50\%$ of final value*
<b>non-linearity</b>	$< 0,25\%$ of final value*
<b>hysteresis</b>	$< 0,15\%$ of final value*
<b>temperature coefficient:</b>	
<b>of zero signal</b>	$\leq 0,04\%$ of final value / K
<b>of the sensitivity</b>	$\leq 0,04\%$ of set point / K
<b>insulation resistance</b>	$> 5.000\text{ M}\Omega$
<b>nominal temperature range</b>	$-15\text{ }^\circ\text{C}$ to $+70\text{ }^\circ\text{C}$
<b>operating temperature range</b>	$-25\text{ }^\circ\text{C}$ to $+80\text{ }^\circ\text{C}$

## cable and connection

<b>cable length / cable type</b>	1,0 m FD CP 4 x 0,14 mm <sup>2</sup>										
<b>cable end</b>	wire-end-sleeve										
<b>wiring connections</b>	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">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)
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\* 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

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