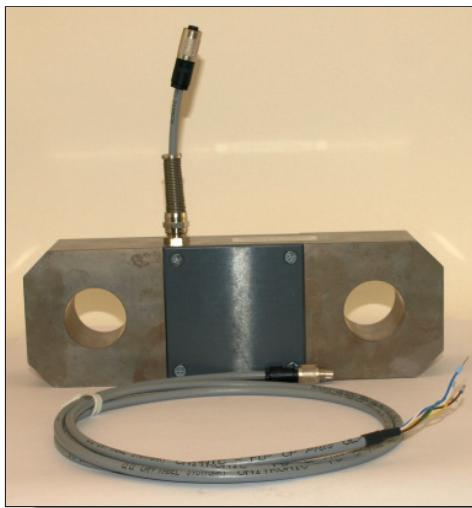


Force Transducer KWZ-80-10t-1.50



article-no: VX34021219
serial-no: key 46N



description

The tensile force transducer KWZ-80 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-80 is designed as a double tie. It has a 35,5 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 4 – 20 mA.

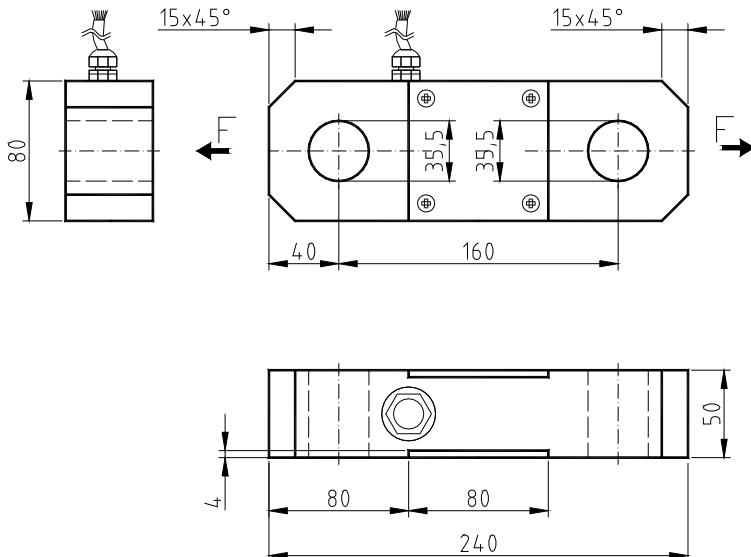
In the unloaded state the nominal output current can be produced by applying the calibration check signal (software calibration). This enables a check of the force transducer, amplifier and the following measuring device.

The KWZ-80 is provided for the direct coupling to a control system or a comparator switch.

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



specification



mechanical execution

diameter, force transmission and mounting see assembly drawing

weight	approx. 5 kg
material	stainless steel
degree of protection	IP 67

KWZ 80-10t

nominal force / nominal load	10 t
max. overload range / force limit	150 % of nominal force
breaking force	400 % of nominal force

electrical execution

measuring signal (output)	4 - 20 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	≤ 0,04 % of final value / K
of the sensitivity	≤ 0,04 % of set point / K
insulation resistance	> 5.000 MΩ
nominal temperature range	-15 °C to +70 °C
operating temperature range	-25 °C to +80 °C

cable and connection

cable length / cable type:

sensor - wire plug	0,1 m FD-CP 4 x 0,14 mm ² 5-pin pluggable (series 712)
wire plug - cable end	1,4 m FD-CP 4 x 0,14 mm ² (extension cable)

cable end

wiring connections

brown	operating voltage UB	(PIN 5)
green	ground / earth GND	(PIN 3)
yellow	measuring signal output Im	(PIN 1)
white	calibration signal (low activ) CC***	(PIN 4)
blue	shielding (only in the case of a shielded cable) not connected	(PIN2)

* 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)