

# Force Transducer SKL-30-3t-12.60

article-no: VX34021119  
serial-no: key 43C



## description

The force transducer works according to the principle of shear force measurement normally to the longitudinal axis.

The load pin SKL-30 was especially developed for use in hydraulic cylinders of working platforms, in cranes and in conveyor techniques.

Its construction is cylindrical with two measurement chambers. For mounting a notch with 6 mm width and 5,6 mm depth is milled into the pin.

The strain gauges are protected against mechanical and chemical damages by sealing the application room with a highly elastic compound.

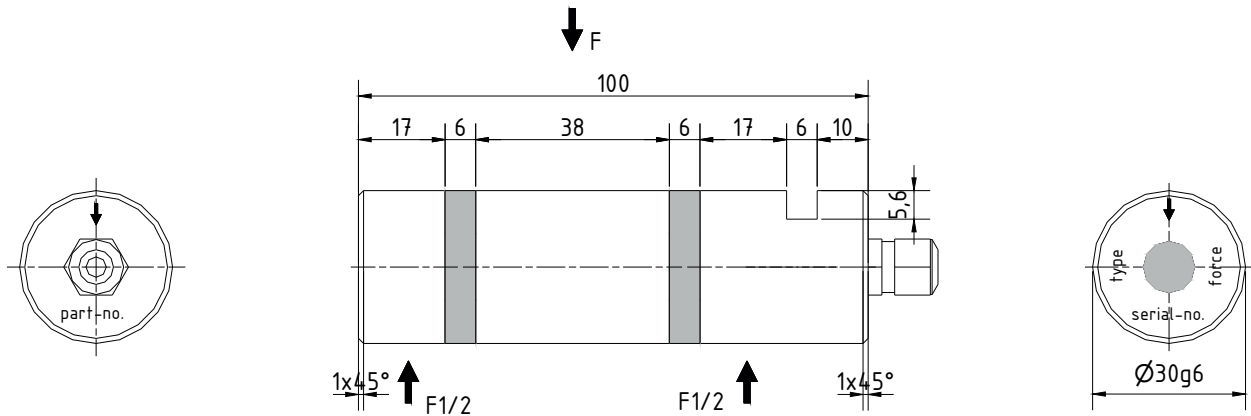
Strain gauges full bridges measure the deformation caused by shear forces on the bolt in the measuring chamber. An external amplifier delivers the measuring signal of 4 – 20 mA.

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 SKL-30 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

<b>weight</b>	approx. 0,74 kg
<b>material</b>	stainless steel
<b>degree of protection</b>	IP 67
<b>SKL</b>	<b>30-3t</b>
<b>nominal force / nominal load</b>	3t
<b>max. overload range / force limit</b>	150 % of nominal force
<b>breaking force</b>	400 % of nominal force

## electrical execution

<b>measuring signal (output)</b>	4 - 20 mA
<b>operating voltage</b>	12 - 24 V DC $\pm 20$ %
<b>current consumption</b>	max. 45 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>	
of zero signal	$\leq 0,04$ % of final value / K
of the sensitivity	$\leq 0,04$ % of set point / K
<b>insulation resistance</b>	> 5.000 M $\Omega$
<b>nominal temperature range</b>	-15 °C to +70 °C
<b>operating temperature range</b>	-25 °C to +80 °C**

## cable and connection

<b>cable length / cable type:</b>	
<b>sensor - amplifier</b>	0,5 m LiYCY 4 x 0,14 mm <sup>2</sup>
<b>off amplifier</b>	plug-in
<b>cable end</b>	5-pole connector (series 713)
<b>pin assignment</b>	
	PIN 1      operating voltage UB
	PIN 2      not connected
	PIN 3      ground / earth GND
	PIN 4      measuring signal output Im
	PIN 5      calibration signal (low activ) CC***
	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

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