

# Force Transducer SKL-20-30-19.60

article-no: VX34021242  
serial-no: key 47H



## description

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

It was developed especially for use on hydraulic cylinders of work platforms, in cranes and conveyor technics.

Its construction is cylindrical with two measurement chambers. For mounting two notches with 5 mm width and 4 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.

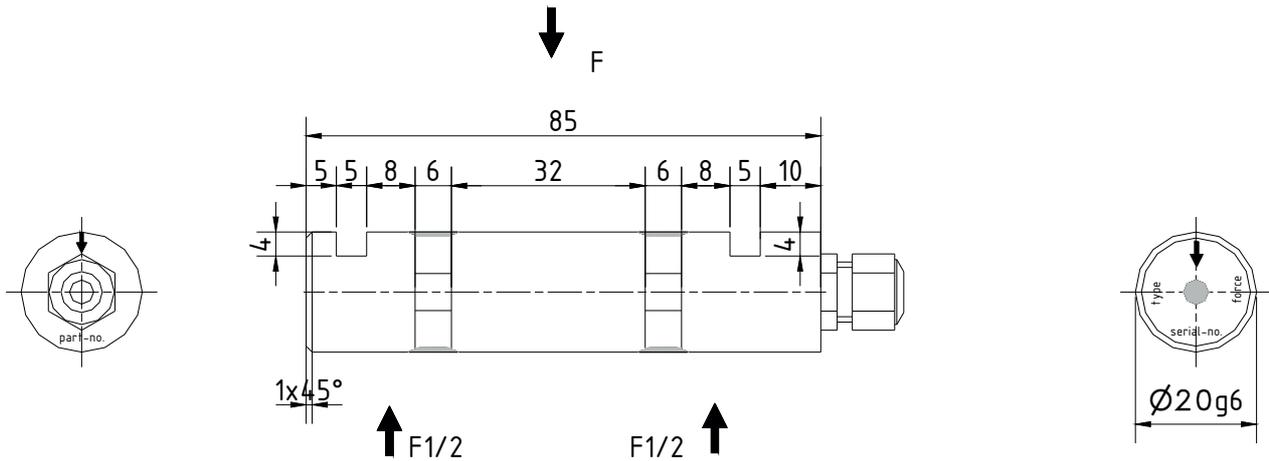
Strain gauges full bridges measure the deformation caused by shear forces on the bolt in the measuring chamber. An external amplifier delivers the measuring signal of 4 – 20 mA.

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-20 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

<b>weight</b>	approx. 0,55 kg
<b>material</b>	stainless steel
<b>degree of protection</b>	IP 67
<b>SKL</b>	<b>20-30</b>
<b>nominal force / nominal load</b>	30 kN
<b>max. overload range / force limit</b>	125 % of nominal force
<b>breaking force</b>	250 % 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>	
of zero signal	$\leq 0,04\%$ of final value / K
of the sensitivity	$\leq 0,04\%$ of set point / K
<b>insulation resistance</b>	$> 5.000\text{ M}\Omega$
<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>	
<b>sensor - amplifier</b>	0,5 m SD 200 C 4 x 0,25 mm <sup>2</sup>
<b>amplifier - cable end</b>	4,5 m SD 200 C 4 x 0,25 mm <sup>2</sup>
<b>cable end</b>	wire-end-sleeve
<b>wiring connections</b>	
brown	operating voltage $U_B$
green	ground / earth GND
yellow	measuring signal output $I_m$
white	calibration signal (low active) 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)