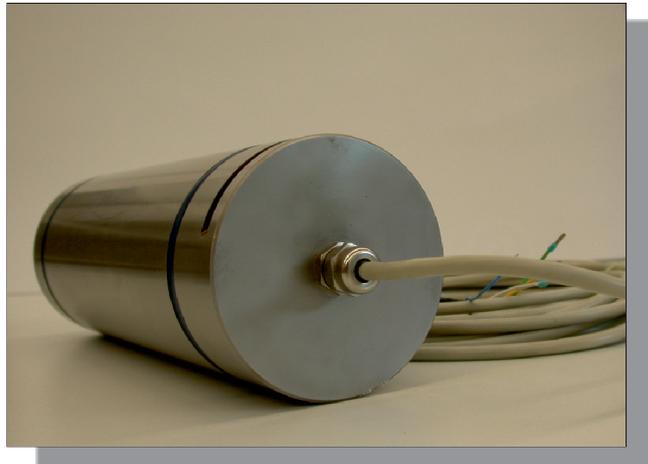


# Force Transducer SKL-90-154-3.00

article-no: VX34020455  
serial-no: key 0S



## 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 a notch with 5 mm width and 16 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.

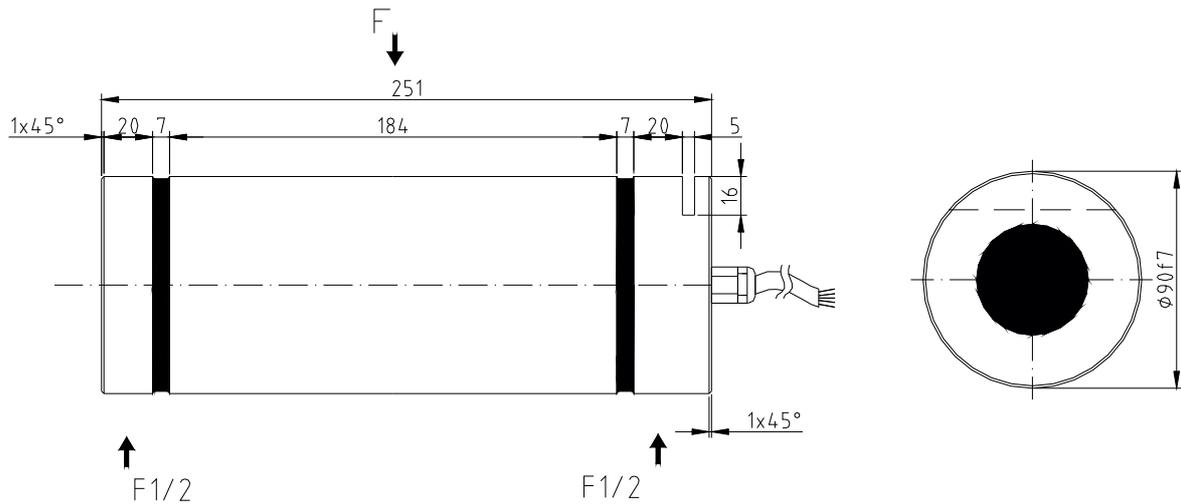
The strain gauge full bridges measure the deformation in the measurement chamber caused by the shear forces on the beam.

The bridges are adjusted in the unloaded state to approx.  $\pm 0,01$  mV/V.

The SKL-90 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. 9 kg  
 material stainless steel  
 degree of protection IP 67

**SKL** **90-154**  
 nominal force / nominal load 154 kN  
 max. overload range / force limit 150 % of nominal force  
 breaking force 400 % of nominal force

## electrical execution

measuring principle wheatstone full bridge of strain gauges  
 input / output resistance 350  $\Omega$  / 350  $\Omega$   
 nominal sensitivity approx. 1,8 mV / V (accurate value: see type label / banderole)  
 excitation voltage max. 12 V AC / DC  
 current consumption max. 35 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 $\Omega$   
 nominal temperature range -15 °C to +70 °C  
 operating temperature range -25 °C to +80 °C\*\*

## cable and connection

cable length / cable type 5 m LiYCY 4 x 0,34 mm<sup>2</sup>  
 cable end wire-end-sleeve  
 wiring connections  
   brown excitation voltage Us+ / B+  
   green excitation voltage Us- / B-  
   yellow signal Ud+ / S+  
   white signal Ud- / S-  
   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)