

# Force Transducer SKL-70-150-20.00

article-no: VX34020942  
serial-no: key 36Y



## description

The load pin works according to the principle of the clipping strength measuring crossways to the longitudinal axis.

The SKL-70 was developed especially for the application in hydraulic cylinders by work platforms, cranes and in the conveyor technology.

It is executed as a round bolt with two measuring chambers. A notch of 10,5 mm of breadth and 10 mm of depth serves for the fastening.

The application room for the strain gauge (dms) is spilled with a very elastic mass and therefore protected from mechanical and chemical damages.

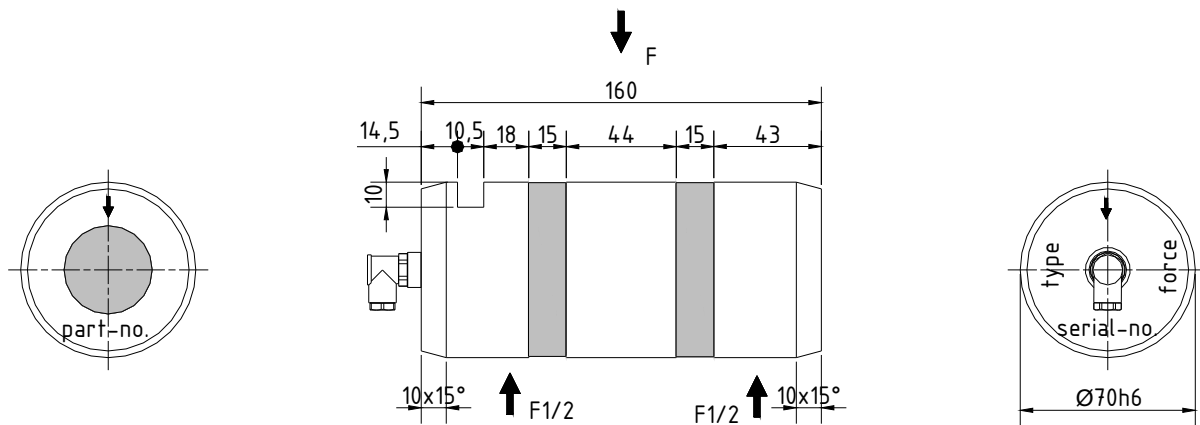
The DMS-full bridge distributed this one on the measuring chambers measures the deformation which is caused by clipping strengths on the bolt.

The bridge balance is on coordinated approx.  $\pm 0,01$  mV / V in the unloaded state.

The SKL-70 is provided for the connection to an amplifier.

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

## specification



## mechanical execution

diameter, force transmission and mounting see assembly drawing

weight approx. 3,7 kg  
 material stainless steel  
 degree of protection IP 67

**SKL** **70-150**  
 nominal force / nominal load 150 kN  
 max. overload range / force limit 200 % 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. 1,2 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 3,0 m LiYCY 4 x 0,25 mm<sup>2</sup>  
 cable end tinned  
 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)