Force Transducer
SKL-100-150-11.50

VELOMAT
MESSELEKTRONIK GmbH

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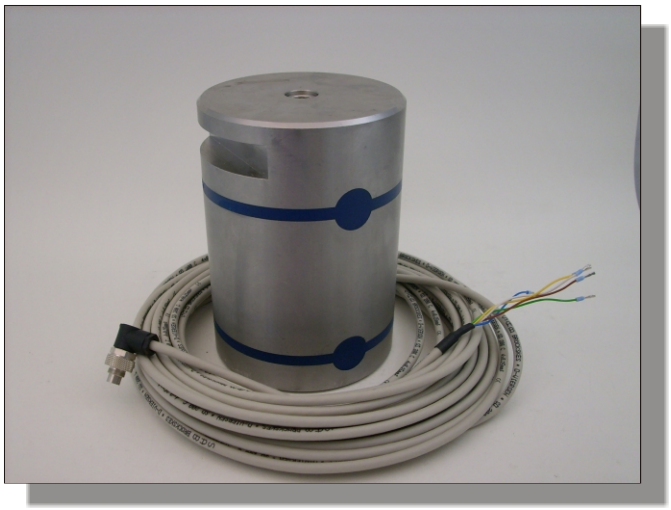

description

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

The SKL-100 was developed especially for the application in hydraulic cylinders by work platforms, cranes and the conveyor technology.

It is executed as a round bolt with two measuring chambers. A notch of 15 mm of breadth and 15 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.

Strain gauge full bridges measure in the measuring chamber by shear forces on the bolt caused deformation. An integrated amplifier supplies the measuring signal of 4 - 20 mA.

In the unloaded state can by add-ons of the calibrating checking signal (software calibration) the nominal output current be produced. A check of the load pin with the amplifier and the following measuring facilities is possible with that.

The SKL-100 is planned for the direct connection with an automatic control or a controlling switch.

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

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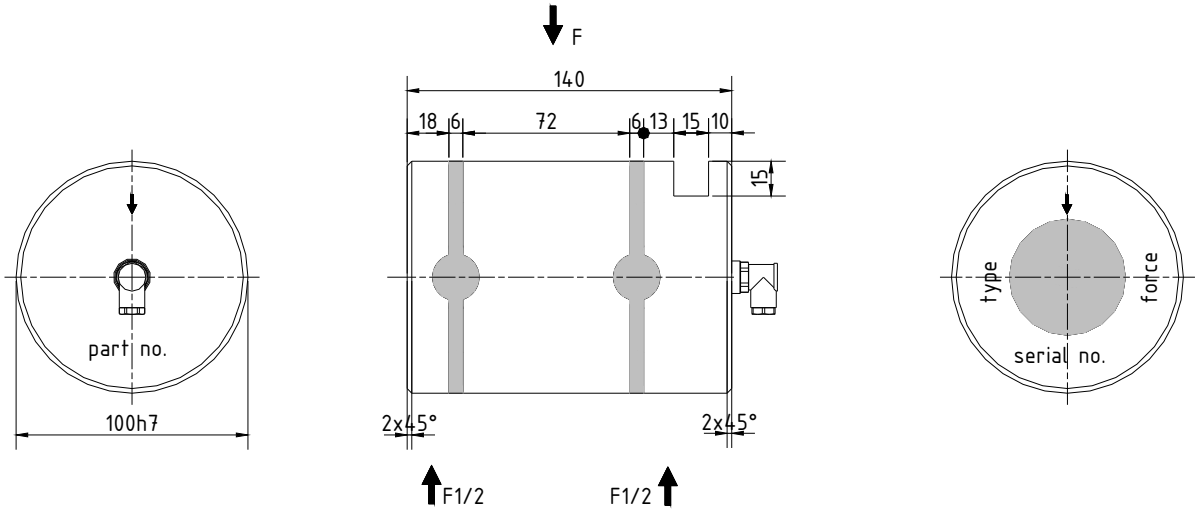
specification



mechanical execution

diameter, force transmission and mounting see assembly drawing

weight	approx. 6,64 kg
material	stainless steel
degree of protection	IP 67
SKL	**100-150**
nominal force / nominal load	150 kN (16 mA)
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	10 m SD 200C 4 x 0,25 mm²	
cable end	wire-end-sleeve	
wiring connections	brown	operating voltage U_B
	green	ground / earth GND
	yellow	measuring signal output Im
	white	calibration signal (low activ) 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)