

Load Pin SKL-18-0,5t-2.XX



description

The load pin works according to the strength measuring principle on a transverse basis to the longitudinal axis.

The SKL-18 was developed especially for use at hydraulics cylinders by work platforms, cranes and conveyor technology.

It is designed as a round bolt with two measuring chambers. Two threaded holes M4 serve for the connection for the intake of a locking plate.

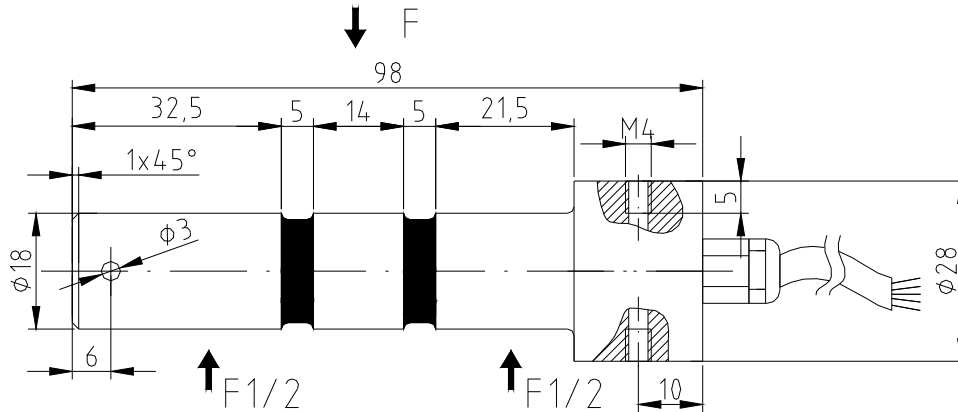
The measuring chamber for the strain gauge has been cast with a high-elastic compound and is thus protected against mechanical or chemical damages.

The strain gauge bridges measure the deformation caused by clipping strengths on the bolt in the measuring chamber. Executions with strap output or amplifier with a measuring signal of 1 - 9 mA or 4 - 20 mA are possible for it.

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

The SKL-18 is planned according to execution for the direct connection with an amplifier or a control.

specification



mechanical execution

weight	approx. 0,5 kg
dimension	diameter = 18 mm / 28 mm, length = 98 mm
force introduction	crossways to the longitudinal axis (see the application sketch)
mounting	locking plate
material	X35CrMo17 1.4122
fit	f7
environmental protection	IP 67

SKL	18-0,5t
nominal force	500 kg
max. use force	200 % of the nominal force
rupture force	400 % of the nominal force

electrical execution

operating voltage	when strap with 350 Ω : max. 12 V AC / DC when amplifier: 9 - 30 V DC
current consumption	max. 35 mA / 45 mA (according to execution)
output	350 Ω / 1 - 9 mA / 4 - 20 mA (options)
calibration in	N / kg
calibration tolerance	< 0,50 % of the final value*
nonlinearity	< 0,35 % of the final value*
hysteresis	< 0,15 % of the final value*
temperature coeff.	
zp.	$\leq 0,04$ % of the final value / K
rec.	$\leq 0,04$ % of the set point / K
operating condition	-25 °C to +80 °C**

connection

cable type	1,5 m LiYCY 4 x 0,14 mm ² (example)
electrical connections	when strap / amplifier
	brown strap voltage U_s+ / operating voltage
	green strap voltage U_s- / GND (ground)
	yellow strap signal U_o+ / measuring signal output
	white strap signal U_o- / calibration signal (low activ)***
	blue protection

* These details are depending on the fit, the resistance moment and the installation length. They are reached with favorable values.

** in case the laid cable is fixed

*** If the calibration signal is not used, then this cable should be clamped together with the brown wire at the operating voltage.