

Force Transducer SKA-30A-2-1.50

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description

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

The SKA-30A is suitable for use to band, container, platform and suspension track scales, but also for measuring forces on machine parts, levers, axes etc

It is constructed as a semi-beam with measuring chambers. The semi-beam shape and two drillings of 13 mm diameter permit assembly compatible to mechanical engineering rules. The force introduction is carried out via a thread M12.

The strain gauges are protected against mechanical and chemical damages by sealing the application room with a highly elastic compound.

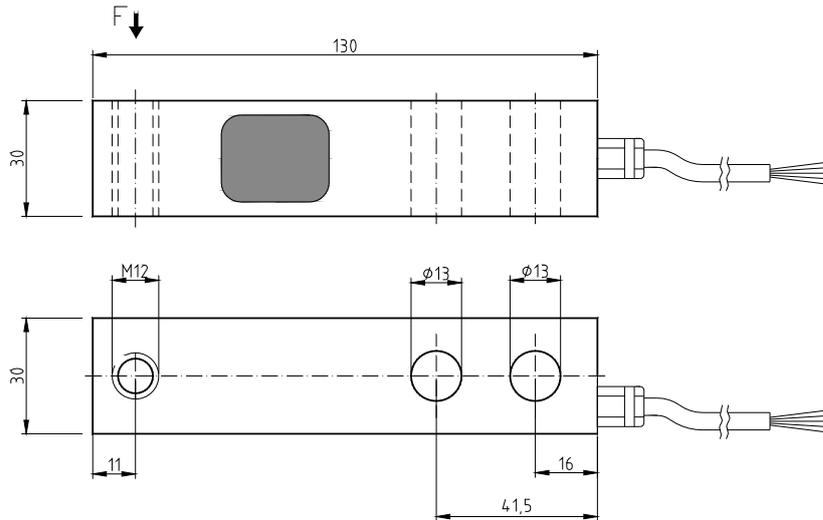
Strain gauges full bridges measure the deformation caused by shear forces on the bolt in the measuring chamber. An integrated amplifier delivers the measuring signal of 4 to 20 mA.

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 SKA-30A 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

weight	approx. 0,32 kg
material	aluminium
degree of protection	IP 67
SKA	30A-2
nominal force / nominal load	2 kN
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	$\leq 0,04$ % of final value / K
of the sensitivity	$\leq 0,04$ % of set point / K
insulation resistance	> 5.000 M Ω
nominal temperature range	-15 °C to +70 °C
operating temperature range	-25 °C to +80 °C**

cable and connection

cable length / cable type	1 m LiYCY 4 x 0,14 mm ²	
cable end	tinned	
wiring connections	brown	operating voltage U _B
	green	ground / earth GND
	yellow	measuring signal output I _m
	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)