

Force Transducer SKA-30AV-200kg-2.00

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description

The force transducer works according to the principle of the clipping strength measuring crossways to the longitudinal axis.

The SKA-30AV is suitable for use to band, containers, platform and hanging train balances but also for measuring strengths in terms of machine parts, levers, axes etc.

It is carried out with two measuring chambers. The force introduction is evident from the application sketch.

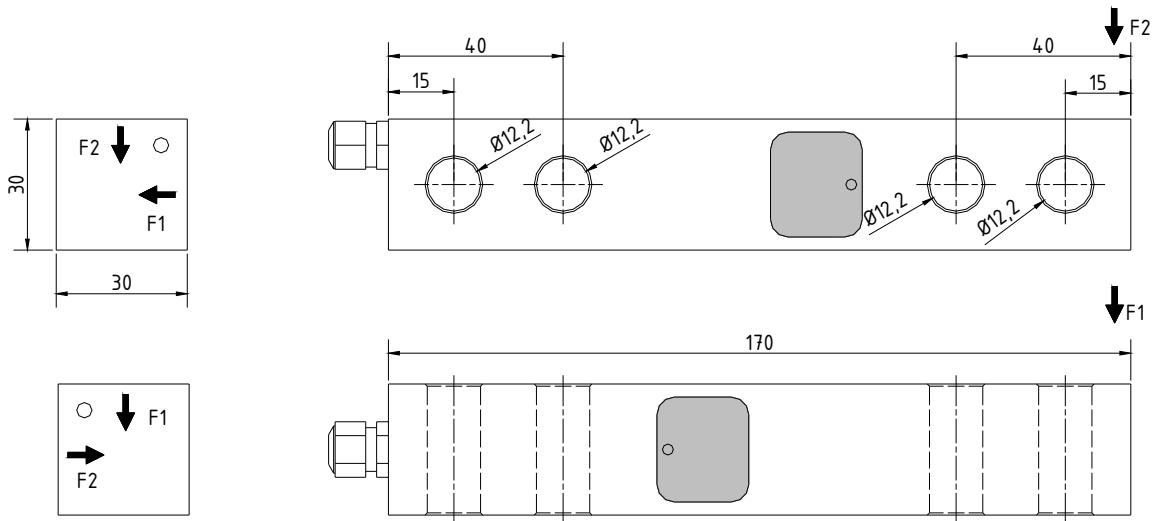
The application room for the strain gauges is spilled with a very elastic mass and therefore protected from mechanical and chemical damages.

The strain gauge bridges measure the deformation caused by clipping strengths on the beam in the measuring chamber.

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

SKA-30AV is assigned for the direct coupling to an amplifier.

specification



mechanical execution

diameter, force transmission and mounting see assembly drawing

weight	approx. 0,44 kg
material	aluminium
degree of protection	IP 67

SKA	30AV-200kg
nominal force / nominal load	200 kg (bi-radial)
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	>175 Ω / 350 Ω
nominal sensitivity	approx. 0,85 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	≤ 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	1,5 m LiYCY 6 x 0,14 mm ²												
cable end	wire-end-sleeve												
wiring connections	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">brown</td> <td>operating voltage US+ / B+</td> </tr> <tr> <td>green</td> <td>operating voltage US- / B-</td> </tr> <tr> <td>yellow</td> <td>strap output UD+ / US+ channel 1</td> </tr> <tr> <td>grey</td> <td>strap output UD- / US- channel 2</td> </tr> <tr> <td>white</td> <td>strap output UD- / US- channel 1</td> </tr> <tr> <td>pink</td> <td>strap output UD+ / US+ channel 2</td> </tr> </table>	brown	operating voltage US+ / B+	green	operating voltage US- / B-	yellow	strap output UD+ / US+ channel 1	grey	strap output UD- / US- channel 2	white	strap output UD- / US- channel 1	pink	strap output UD+ / US+ channel 2
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white	strap output UD- / US- channel 1												
pink	strap output UD+ / US+ channel 2												

* 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)