Force Transducer
SB-20-1,6t.-1.00

MESSELEKTRONIK GmbH

article-no: VX34020228
serial-no: key 6X

description

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

The SB-20 was developed especially for the use at hydraulic cylinders by work stages, cranes and in the conveyor technique.

It is executed as a plug-in bolt with two clipping grooves. Against slipping axially is fixed on one side by a flange and on the other one by two crossway gooves for the mounting of locking plates or similiar.

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

The strain gauge-full bridge distributed this one on the measuring chambers measures the deformation which is caused by clipping strengths on the load pin.

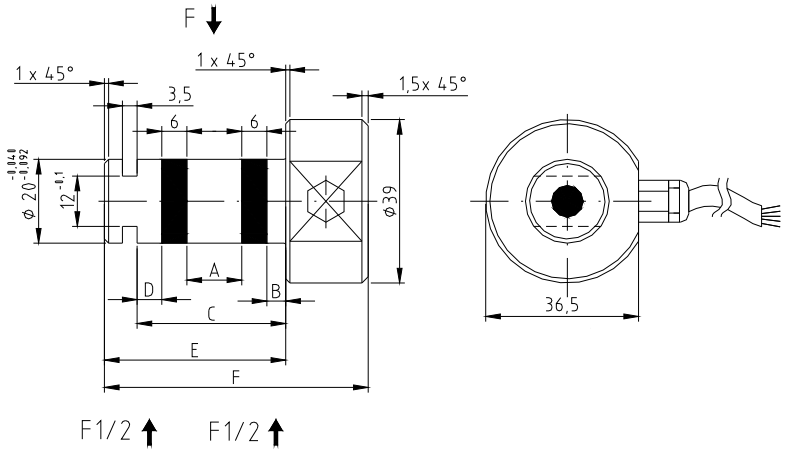
The strap balance is on coordinated approx. 0,01 mV / V in the unloaded state.

The SB-20 is assigned for the direct coupling to an amplifier.

The shield of the cable is connected with the surface of the force transducer.

VELOMAT Messelektronik GmbH . Schwarzer Weg 23b . D-01917 Kamenz
Internet: www.velomat.de
Telefon (03578) 3749-0 . Telefax (03578) 3749-14
E-Mail: velomat@velomat.de

specification



	A	B	C	D	E	F
SB–20–1,6t–1.xx	20.5	5.5	43.5	5.5	51	66

mechanical execution

diameter, force transmission and mounting see assembly drawing

weight	approx. 0,30 kg
Material	stainless steel
degree of protection	IP 67
SB	**20-1,6t**
nominal force / nominal load	1.600 kg
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 Ω / 350 Ω
nominal sensitivity	approx.1,4 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 % ot 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 4 x 0,14 mm²	
cable end	wire-end-sleeve	
wiring connections	brown	excitation voltage U_S+ / B+
	green	excitation voltage U_S- / B-
	yellow	signal U_D+ / S+
	white	signal U_D- / 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)