

Force Transducer DZA-40A-50kg-1.XX



description

The force transducer is useable for tension or compression and works according to the strength measuring principle on a transverse basis to the longitudinal axis.

The DZA-40A are suitable for use to pondering technology, load measuring to platforms, deciding of kick loads etc.

It is executed as a z/s shaped beam with a measuring cell. The beam form and two screw threads M10 on the upper and underside permit a simple assembly and strength introduction.

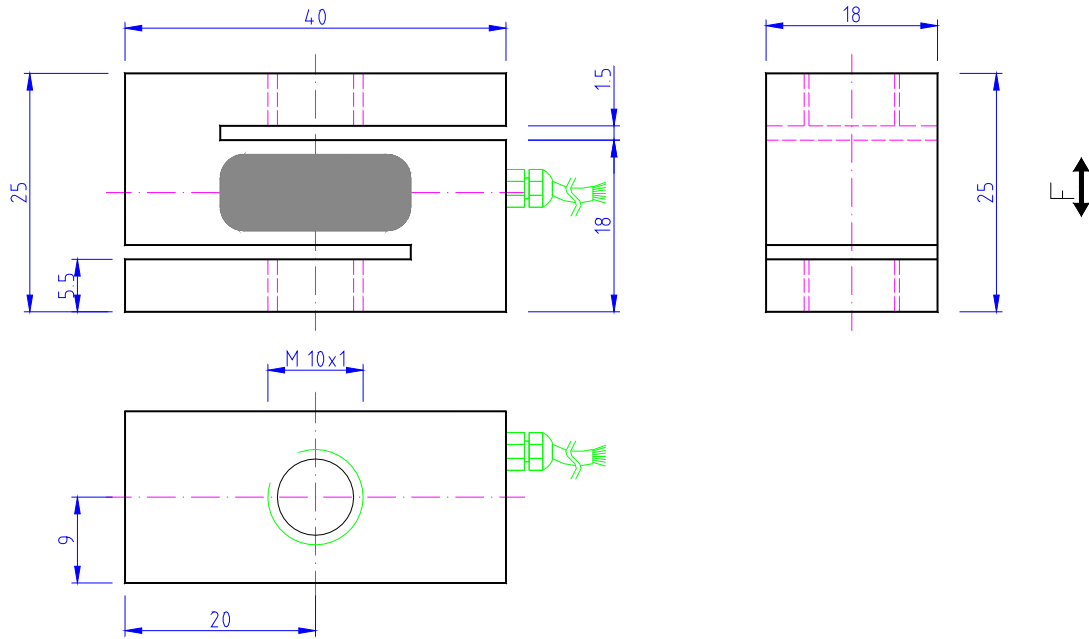
The application room for the strain gauge is spilled with a very elastic mass and protected so from mechanical and chemical damages.

The strain gauge bridges measure the deformation caused by clipping strengths on the beam in the measuring cell. 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 force transducer with the amplifier and the following measuring facilities is possible with that.

The DZA-40A is planned according to execution for the direct connection with an amplifier or a control.

specification



mechanical execution

weight	approx. 45 g
mounting	2 x screw threads M10
material	aluminium
environmental protection	IP 67
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DZA	40A-50kg
nominal force	50 kg
max. use force	150 % 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 / 40 mA (according to execution)
output / measuring signal	350 Ω / 1 - 9 mA / 4 - 20 mA (options)
calibration in	N / kg
calibration tolerance	< 0,50 % of the final value*
nonlinearity	< 0,25 % 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 $^{\circ}$ C to +80 $^{\circ}$ 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_d+ / measuring signal output
	white strap signal U_d- / 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.