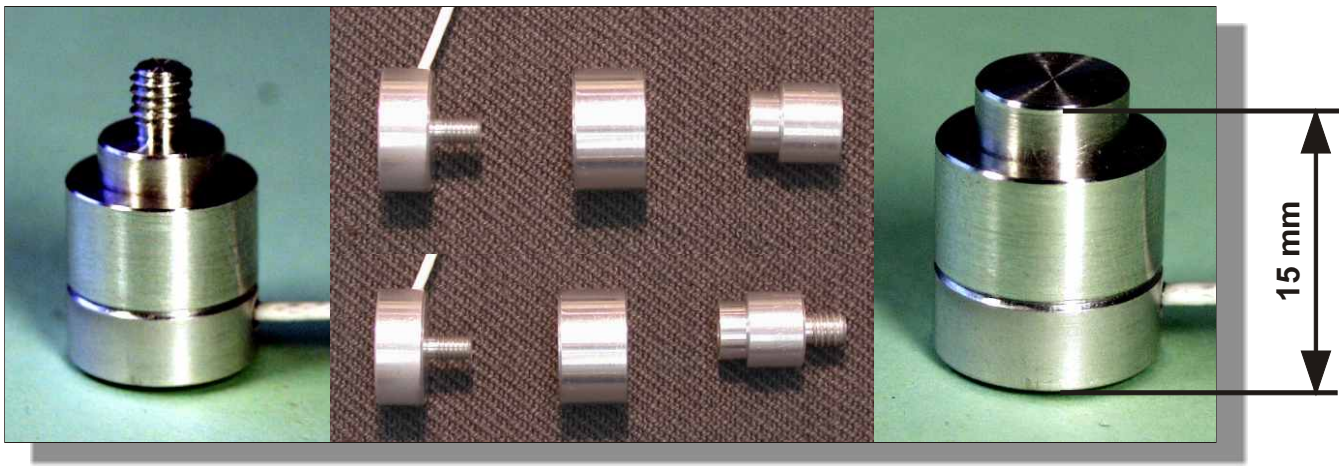
Force Transducer
DMA-12A-100N-1.00

VELOMAT MESSELEKTRONIK

article-no.: VX34020691
serial-no.: key 5E



description

The force transducer works according to the principle of the pressure strength measuring. The force introduction is carried out in the direction of the longitudinal axis.

The DMA-12A was developed especially for measuring small strengths (quality control, weight and filling level determination,...) to robot, handling and medical engineering develops. It can be used one by one or into combination with other DMA-12A for e.g. area measuring.

The force transducer has one for cylindrical form with a strain gauge chamber. Its assembly and the ranges of application are supported by the use of different adapter with cylinder or screwing thread connections. The force introduction is appropriately labelled in the one application sketch.

The strain gauge full bridge measures the deformation caused by pressure strengths on the sensor.

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

The DMA-12A is provided for the direct connection to an amplifier or an evaluation electronics.

TÜV CERT DIN EN ISO 9001 : 2000 Zertifikat: 08/100/304/8

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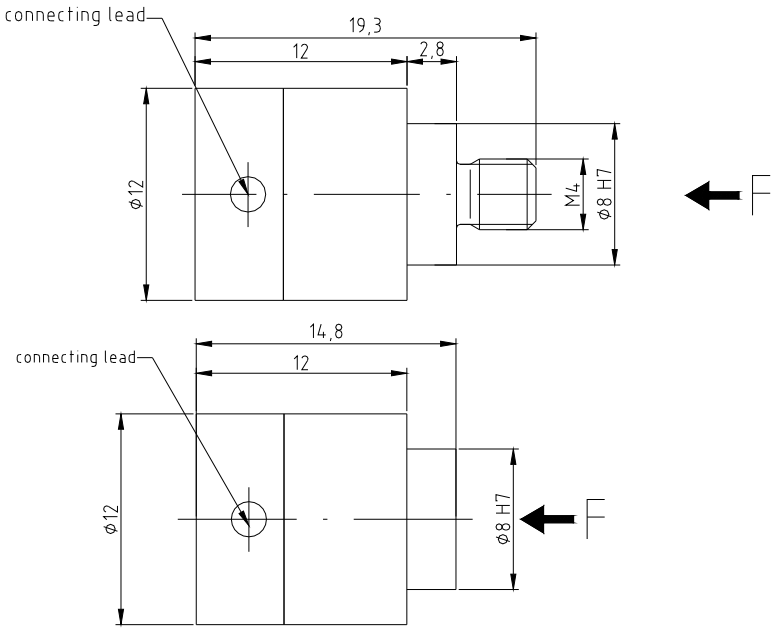
specification



mechanical execution

weight	approx. 5 g
material	aluminium
environmental protection	IP 67
DMA	**12A-100N**
nominal force	100 N
max. use force	150 % of the nominal force
rupture force	400 % of the nominal force

electrical execution

measuring principle	strain gauge full bridge
input and output resistance	350 Ω
sensitivity	approx. 1,3 mV / V (exactly details on banderole of the cable)
operating voltage	max. 12 V AC / DC
calibration in	N
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.	≤ 0,05 % of the final value / K
rec.	≤ 0,06 % of the set point / K
insulation resistance	> 5.000 MΩ
operating condition	-25 °C to +80 °C**

connection

cable type	LiYDY 4 x 0,05 mm^2	
cable length	0,5 m	
cable end	tinned	
electrical connections	red	strap voltage U_S+
	black	strap voltage U_S-
	green	strap signal U_D+
	white	strap signal U_D-

* 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