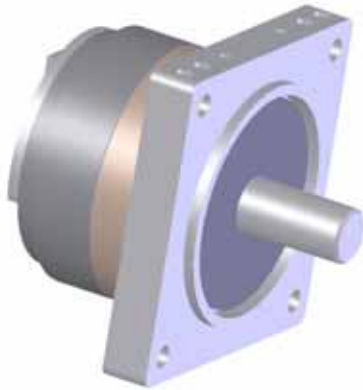


Rotation Piezo Stage → preliminary data sheet



Torque-master-NEMA 11

- PiezoMotor driven system
- Travel range 360°
- Resolution up to 129.600 counts (10'')
- Maximum operation speed 20 turns/min
- Force: strong 100mNm
- Ultra precise and robust design
- fast response.
- Material: Stainless steel,
- integrated magnetic 17 bit encoder
- desinged to replace a NEMA 11 stepper motor
- only 17mm short without encoder

The torque-mater-NEMA11 is a customized piezo motor with an adapted encoder systems developed by NANOS Instruments. The robust design with two ball bearings guarantee a smooth and highly accurate movement in the range of sub nanometers. The low current encoder with high resolution is monted outside. This results in practically zero drift with highest resolution. This stage is fitting with our other stages or goniometers, and can be combined as building blocks for a multi-axis stage. With it's high force it is able to move also other stages with cabel and your probs. It is for it's high torque a very tiny system. The benefit against a cheper stepper is the high touque ,in small size without warming. With an external encoder the resolution could be very much higher

Specifications

torque-master-NEMA 11			
Electronic	PMD101	MC101	LEGS-Drive®-Ultra
Travel range (°)	360	360	360
Force (mNm)	100	100	100
Load vertical on the center (kg)	2	2	2
max operation speed (°/s)	120	120	120
fast movement** (µm/ms)	on request	on request	on request
integrated sensor interpolated with the I-Modul	129600 (10'')	129600 (10'')	129600 (10'')
accuracy	on request	on request	on request
Bidirectional Repeatability (Encodercounts)	on request	on request	on request

* the MC101 and the LEGS-Drive®-Ultra Controller are able to oversample and filter the encoder sensor to higher the resolution. In this case short fast steps takes longer.

** Fast movement is possible for a short time with the LEGS-Drive®-Ultra Controller

note the maximum encoder sending frequence at highest resolution

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latest releases available at www.nanos-instruments.de or call +49 40 85159439

Rotation Piezo Stage → preliminary data sheet

Order code for this stage:

(please call for support, we will help you to find the right solution)

Torque-mater-NEMA11-S-A

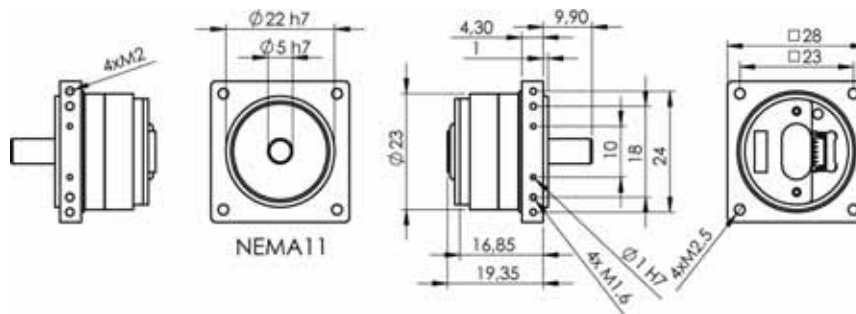
S 0 (open loop without encoder)
 1 (with sensor and I-modul for AquadB and Z output)

A= Ambiente N- normal
 HV vacuum down to 10^{-6} mbar

The order code could be for example: Torque-mater-NEMA11-1-N

Rotation Piezo Stage → preliminary data sheet

Dimensions:



Applications:

It fit allso together with the LPS-30 serie or the theta-table

