

Micro Precision Actuator, UHV | MPA-20

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The MPA-20 linear actuator is designed for ultra high vacuum environments. Typical applications include actuation of manual drive stages and mirror mounts. It utilizes a 2-phase stepper motor and two hermetically sealed mechanical limit switches. The MPA-20 is compatible with the MMC-200 controller.

KEY FEATURES

- Travel range of 12mm
- 0.5mm pitch lead screw
- 200 steps/rev stepper motor with 4:1 gear reduction
- Load capacity up to 10 kg
- Preloaded spline for low backlash
- Hermetically sealed limit switches, UHV compatible
- Integrated thermal couple

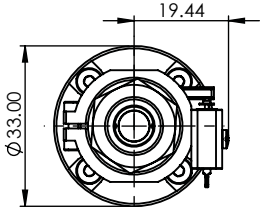
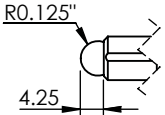
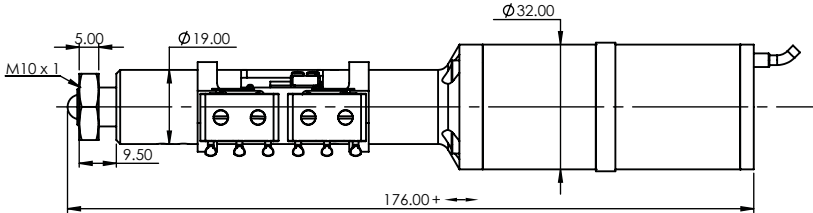
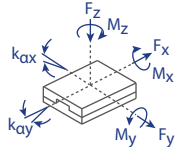
TECHNICAL DATA

Travel range [mm]	12
Motor option	Stepper Motor
Encoder option	None (open loop)
Resolution, typical [μm]	0.1
Repeatability, bi-directional [μm]	± 1
Repeatability, uni-directional [μm]	1
Materials	stainless steel body and bearings, phosphor bronze nut aluminum limit switch brackets

ORDERING INFORMATION

	MPA-20-	1	1	0	1	9
DRIVE	Stepper Motor, SM-005	1				
TRAVEL	12 mm		1			
ENCODER	None			0		
LIMIT SWITCH	Mechanical				1	
ENVIRONMENT	Ultra High Vacuum, 10^{-9} mbar					9

Load, max	F_x [N]	F_y [N]	F_z [N]	M_x [N-m]	M_y [N-m]	M_z [N-m]	k_{ax} [$\mu\text{rad/N-m}$]	k_{ay} [$\mu\text{rad/N-m}$]
SM-005	100	10	10	-	-	-	-	-



Specifications are subject to change without notice.