

Piezo Rotation Stage | PR-70PM

NEW

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Preliminary

The PR-70PM is a compact piezo rotation stage with unlimited travel and a 25.6mm aperture. Steel crossed roller bearings ensure smooth motion and high stability. It uses our patented multi-phase piezo motor resulting in high resolution, high blocking, torque, and with a dual-motor configuration option for increased torque. The PR-70PM can be combined with the linear PPX-50 or PPS-70 (51mm travel and up) stages without an adapter bracket. Versions capable of operation in vacuum (10^{-9} mbar) are available. The PR-70PM is compatible with the MMC-100, MMC-110, MMX-Series, and NanoDrive controllers.

KEY FEATURES

- Continuous 360° motion
- 5 μ closed loop digital encoder resolution
- Load capacity up to 3.5 kg
- 25.6mm aperture
- Crossed roller bearing
- 28.2mm height
- Vacuum versions available

TECHNICAL DATA

Travel range [°]	360, limitless		
Flatness (bearings) [μ m]	± 10		
Eccentricity (bearings) [μ m]	± 10		
Wobble [μ rad]	± 400		
Weight [g], Open Loop	300		
Weight [g], Closed Loop	330		
Motor option	Piezo Motor		
Speed, max [°/s]	5 (MMC-100), 15 (MMC-110 and NanoDrive)		
Encoder option	None (Open Loop)	Digital (RS-422)	Absolute (BiSS C)***
Resolution, typical [μ °]	1	5	<50
Repeatability, bi-directional [μ °]	n/a	± 200	± 500
Repeatability, uni-directional [μ °]	n/a	200	500
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)		

ORDERING INFORMATION

PR-70-

1

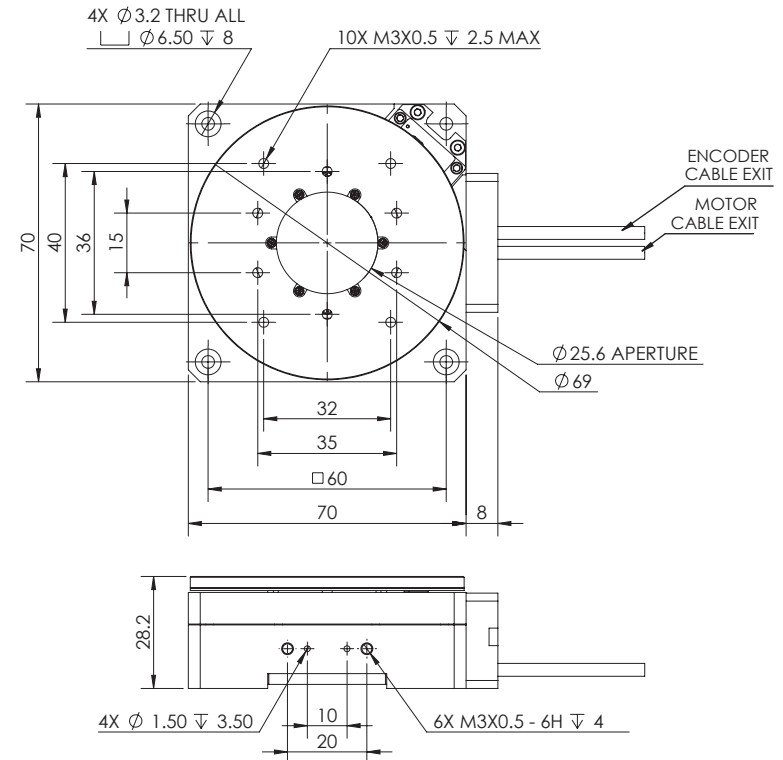
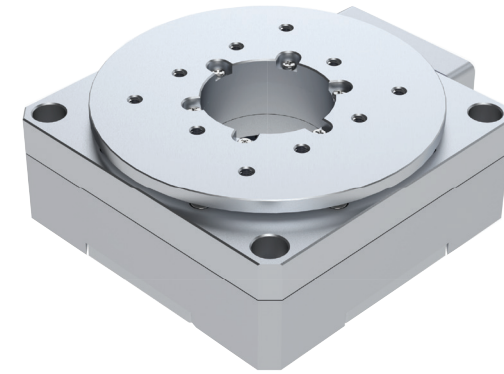
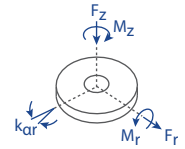
DRIVE	Piezo Motor	1
	Piezo Motor, High Force*	5
TRAVEL	360°	1
ENCODER	None	0
	Digital (RS-422)	3
	Absolute (BiSS C)***	5
HOME SWITCH	None	0
	Magnetic**	1
ENVIRONMENT	Atmospheric	0
	High Vacuum, 10^{-6} mbar	6
	Ultra High Vacuum, 10^{-9} mbar	9

* MMC-110 only

** Only available in open loop

*** Not available for the MMC-100

Load, max	F_x [N]	F_z [N]	M_x [N-m]	M_z [N-m]	k_{ax} [μ rad/N-m]
PM-003R	25	35	5	0.05	150
PM-High Force	25	35	5	0.10	150



• all dimensions are in millimeters

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PRECISION MOTION SOLUTIONS

Specifications are subject to change without notice.