

Rotation Stage | PR-160PM

The PR-160 piezo rotation stage delivers continuous 360° rotation with high precision and smooth motion using a crossed roller bearing and dual patented multi-phase piezo motor. It supports up to 10 kg load capacity and provides closed-loop encoder resolution down to 10 μ° for demanding alignment and positioning requirements. The robust mechanical design allows for top, bottom, or side mounting and is available in vacuum compatible configurations to support flexible system integration. Paired with the MMC-110 controller, the PR-160 provides a reliable solution for high performance rotational motion control.

KEY FEATURES

- Low profile, 23 mm height in open loop, 31.6 mm closed loop
- Continuous 360° motion
- 10 μ° closed loop encoder resolution
- Load capacity up to 10 kg
- 120 mm clear aperture
- Crossed roller bearing
- Vacuum versions available
- Available with closed carriage

TECHNICAL DATA

Travel range [°]	360°, limitless		
Flatness (bearings) [μm]	± 10		
Eccentricity (bearings) [μm]	± 10		
Wobble [μrad]	± 200		
Weight [g], Open Loop	900		
Weight [g], Closed Loop	1100		
Motor option	Piezo Motor		
Speed, max [°/s]	3 (MMC-110)		
Encoder option	None (open loop)	Analog (1 V_{pp})	Digital (RS-422)
Resolution, typical [μ°]	5	50	10
Repeatability, bi-directional [μ°]	n/a	± 200	± 200
Repeatability, uni-directional [μ°]	n/a	200	200
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)		

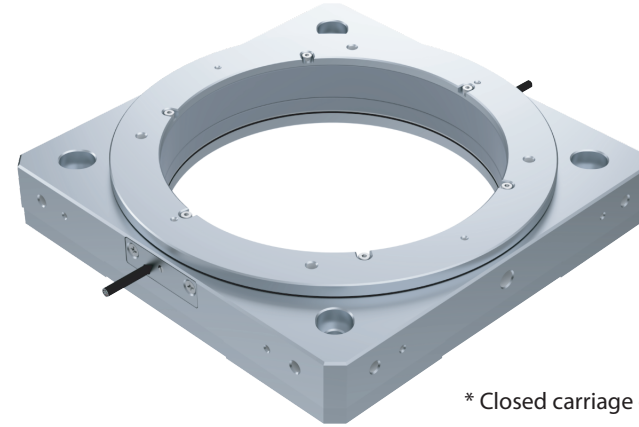
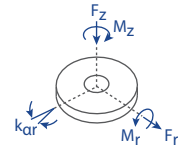
ORDERING INFORMATION

PR-160- 1 1

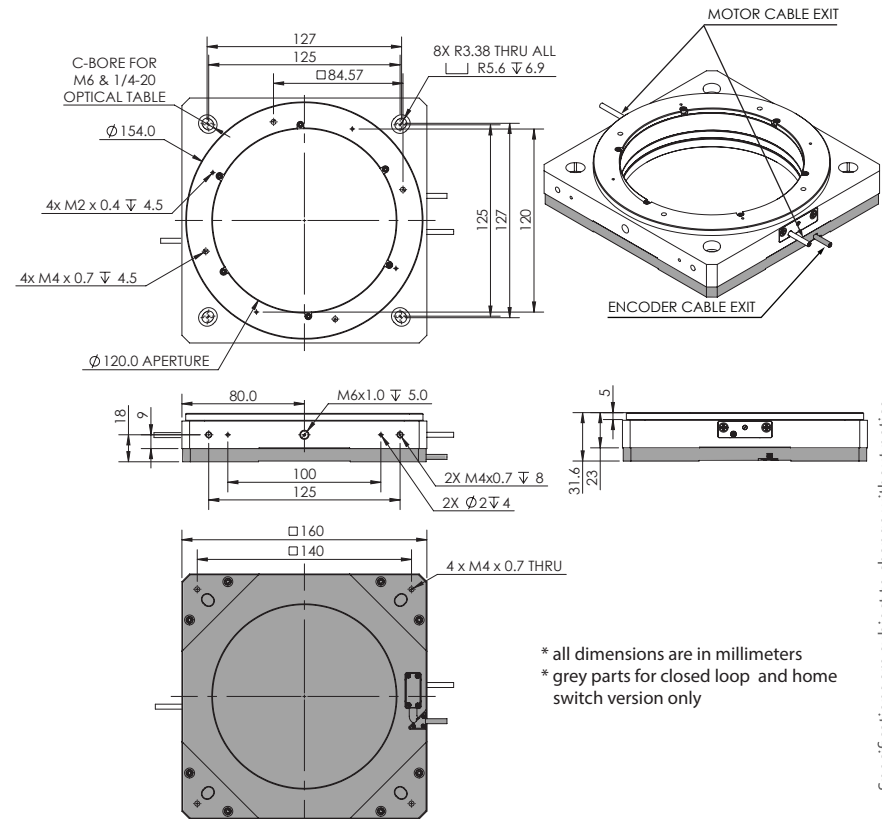
DRIVE	Piezo Motor, PM-005R	1
TRAVEL	360°	1
ENCODER	None	0
	Analog (1 V _{pp})	2
	Digital (RS-422)	3
LIMIT SWITCH	None	0
	†Magnetic	1
ENVIRONMENT	Atmospheric	0
	High Vacuum, 10 ⁻⁶ mbar	6
	Ultra High Vacuum, 10 ⁻⁹ mbar	9

†Only available in open loop

Load, max	F _r [N]	F _z [N]	M _r [N-m]	M _z [N-m]	k _{qr} [μrad/N-m]
PM-005R	20	100	5	0.3	150



* Closed carriage option available



* all dimensions are in millimeters
* grey parts for closed loop and home switch version only

Specifications are subject to change without notice.