

Piezo XY Stage | PPX-32CR

The PPX-32CR is a low profile, integrated XY stage with a height of only 14mm. Crossed roller bearings guarantee smooth and stable motion for loads up to 10 N. It utilizes a multi-phase piezo motor resulting in high speed (> 10 mm/s) and high blocking force (> 2 N). The PPX-32CR is available in open loop or with a linear encoder. Closed-loop encoder resolution of 2 nm is achievable. Versions capable of operation in vacuum (10^{-9} mbar) are available. The PPX-32CR is compatible with the MMC-100 and MMC-110 controllers.

KEY FEATURES

- Travel range of 18 x 18 mm
- Open aperture
- 2 nm closed loop encoder resolution
- Load capacity up to 1 kg
- Crossed roller bearings
- Low profile, 14mm height
- Vacuum and non-magnetic versions available

TECHNICAL DATA

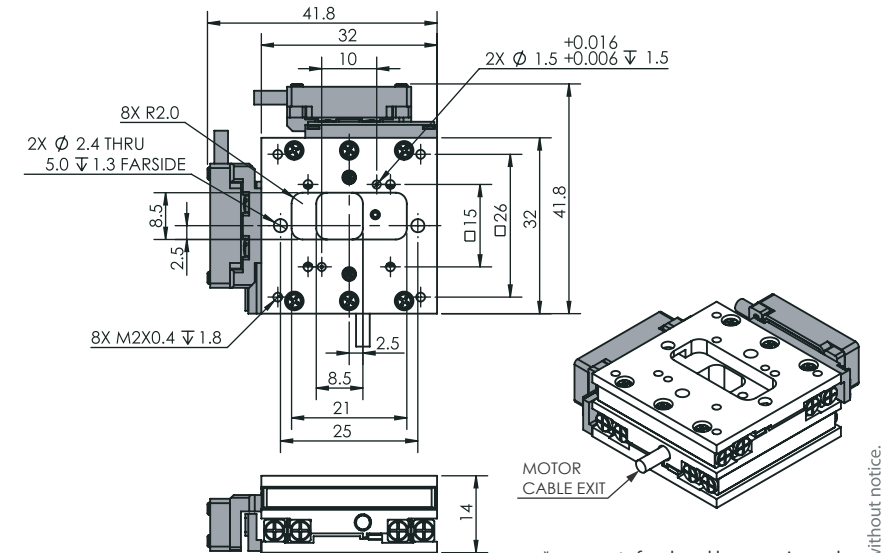
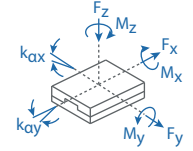
Travel range [mm]	18 x 18		
Straightness / Flatness [μ m]	± 2.5		
Pitch [μ rad]	± 200		
Yaw [μ rad]	± 100		
Weight [g], Open Loop	50		
Weight [g], Closed Loop	60		
Motor option	Piezo Motor		
Speed, max [mm/s]	2 (MMC-100), 10 (MMC-110)		
Encoder option	None (open loop)	Analog (1 V_{pp})	Digital (RS-422)
Resolution, typical [nm]	1	10	2
Repeatability, bi-directional [nm]	n/a	± 50	± 50
Repeatability, uni-directional [nm]	n/a	50	50
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)		

ORDERING INFORMATION

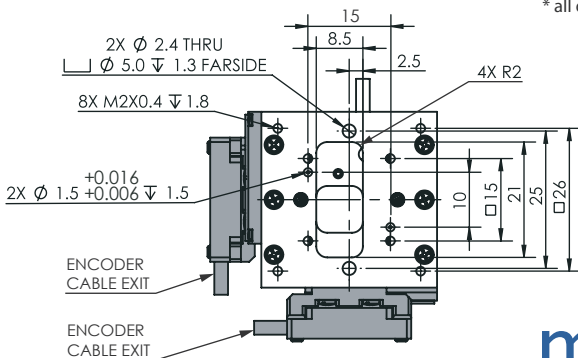
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DRIVE	Piezo Motor, PM-002	1
TRAVEL	18 x 18 mm	1
ENCODER	None	0
	Analog (1 V_{pp})	2
	Digital (RS-422)	3
LIMIT SWITCH ENVIRONMENT	None	0
	Atmospheric	0
	High Vacuum, 10^{-6} mbar	6
	Ultra High Vacuum, 10^{-9} mbar	9
	Non-Magnetic	M

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} [μ rad/N-m]	k_{ay} [μ rad/N-m]
PM-002	2	2	10	0.6	0.6	0.6	-	-



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



Specifications are subject to change without notice.