Elevation Stage | PZS-90

The PZS-90 elevation stage is designed for applications with limited space conditions. Pre-loaded crossed roller bearings assure smooth motion and high stiffness. The PZS-90 allows for a highly rigid XZ or XYZ setup without the need for adapter brackets when combined with the VT-50L series & PPS-60 series of linear stages. The PZS-90 stage is driven by a 2-phase stepper motor and is equipped with two mechanical limit switches. An optional linear encoder provides higher accuracy versus the open loop option. Versions capable of operation in vacuum (10-6 mbar) are available. The PZS-90 is compatible with the MMC-200 controller.

KEY FEATURES

- Travel range of 35 mm
- 50 nm closed loop encoder resolution
- Load capacity up to 15 kg
- Steel crossed roller bearing
- Integrated mechanical limit switches
- Vacuum versions available

TECHNICAL DATA

Travel range [mm]	35					
Straightness / Flatness [µm]	±3					
Pitch [µrad]	± 200					
Yaw [µrad]	± 200					
Weight [g], Open Loop	925					
Weight [g], Closed Loop	950					
Motor option	2-Phase Stepper Motor					
Speed, max [mm/s]	10					
Encoder option	None (open loop)	Analog (1 V _{pp})	Digital (RS-422)			
Resolution, typical [μm]	0.5	0.05	0.05			
Repeatability, bi-directional [μm]	± 2	± 0.1	± 0.1			
Repeatability, uni-directional [µm]	0.5	0.1	0.1			
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)					

ORDERING INFORMA	TION PZS-90-	1	1	1	
DRIVE	Stepper Motor, SM-003	1			
TRAVEL	35 mm	1 —			
ENCODER	None Analog (1 V _{pp}) Digital (RS-422)	0 — 2 3			
LIMIT SWITCH	Mechanical	1 —			
ENVIRONMENT	Atmospheric High Vacuum, 10 ⁻⁶ mbar				

Load, max	F _X [N]	F _y [N]	F _Z [N]	<i>M_X</i> [N·m]	M _y [N·m]	<i>M</i> _Z [N·m]	k _{αχ} [μrad/N·m]	k _{αy} [μrad/N·m]
SM-003	75	75	150	50	50	100	50	50



