Elevation Stage | ES-50SM

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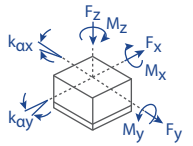
The ES-50 elevation stage is designed for applications with limited space conditions. The ES-50 stage is driven by a 2-phase stepper motor and is equipped with two mechanical limit switches. Two pre-loaded ball slides assure smooth motion and high stiffness. The ES-50 allows for a highly rigid XZ or XYZ setup without the need for adapter brackets when combined with the VT-50 series of linear stages. Versions capable of operation in vacuum (10^{-6} mbar) are available. The ES-50 is compatible with the MMC-200 controller.

KEY FEATURES

- Travel range of 10 mm
- 50 nm closed loop encoder resolution
- Load capacity up to 1 kg
- Ball slides
- Integrated mechanical limit switches
- Vacuum versions available

Load, max	F_x [N]	F_y [N]	F_z [N]	M_x [N-m]	M_y [N-m]	M_z [N-m]	$k_{\alpha x}$ [µrad/N-m]	$k_{\alpha y}$ [µrad/N-m]
SM-001	5	5	10	1	1	1	-	-



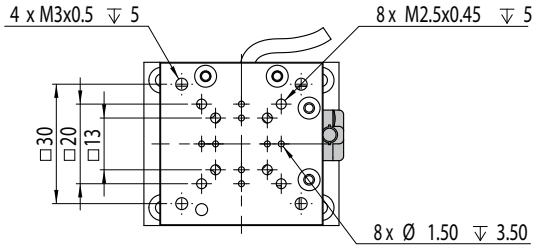
TECHNICAL DATA

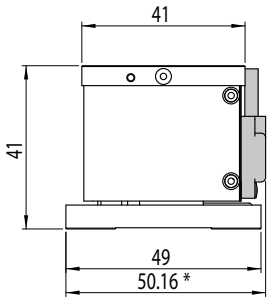
Travel range [mm]	10			
Straightness / Flatness [µm]	± 4			
Pitch [µrad]	± 300			
Yaw [µrad]	± 300			
Weight [g]	110			
Motor option	**2-Phase Stepper Motor**			
Speed, max [mm/s]	5			
Encoder option	**None (open loop)**	**Analog (1 V_{pp})**	**Digital (RS-422)**	**Digital Low Cost (RS-422)**
Resolution, typical [µm]	0.5	0.05	0.05	0.5
Repeatability, bi-directional [µm]	± 2	± 0.2	± 0.2	± 1
Repeatability, uni-directional [µm]	0.5	0.2	0.2	1
Materials	aluminum body, steel bearing (other materials i.e. stainless steel, titanium, etc. available upon request)			

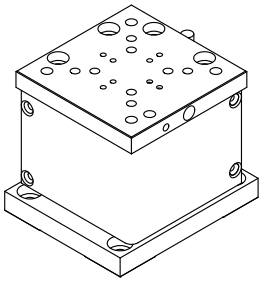
ORDERING INFORMATION

ES-50- | 1 | 1 | | 1 | |

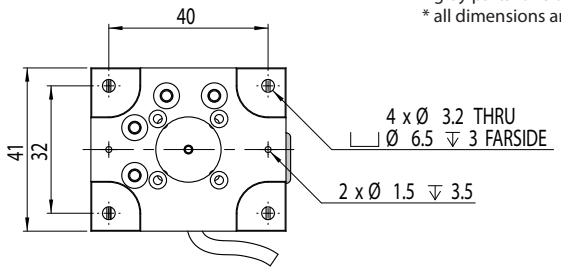
DRIVE	Stepper Motor, SM-001	1
TRAVEL	10 mm	1
ENCODER	None	0
	Analog (1 V_{pp})	2
	Digital (RS-422)	3
	Digital Low Cost (RS-422)	4
LIMIT SWITCH	Mechanical	1
ENVIRONMENT	Atmospheric	0
	High Vacuum, 10^{-6} mbar	6







* gray parts for closed loop versions only
* all dimensions are in millimeters



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