

2 Multi Degrees of Freedom

27-38

2.1



Free XD series

Multi Degrees of Freedom, Long Travel Range, Parallel Kinematic

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2.1.1

Z Tx Ty

Free3D.ZTxTy

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2.1.2

X Y Z · Tx Ty Rz

Free6D.3-2.150, Free6D.3-2.070

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2.2



Carrier series

Carrier.L7550.XY, Carrier.L1010.XY

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2.3



Piezo Motor Controller

MC-Newton.S

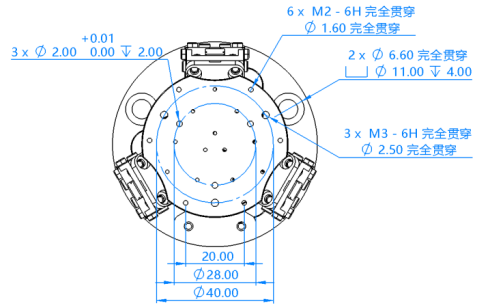
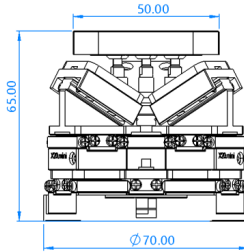
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6 DoF Parallel Stage — Free6D.3–2.070

Parallel Kinematic, Clear Aperture, Flexible Design

- ➔ Feature
- Quiet Motion
 - Self-lock
 - Optical Sensor Inside
 - Nanometer Resolution
 - Parallel Kinematic
 - High Stiffness

➔ Photo & Drawing



Piezo Motion · RT

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➔ Specification Free6D.3–2.070

1	Optional	.HV, High Vacuum Version; .UHV, Ultra High Vacuum Version;
2	Footprint × Height	Ø70 × 65 mm
3	Material	Stainless Steel, Aluminum
4	Cable & Connector(6x)	Standard/HV, shield cable and D-Sub15 plug; UHV, Kapton, PEEK D-Sub15
5	Max. Payload	100 g
6	Travel Range X, Y, Z	±5 mm, ±5 mm, ±2.5 mm
7	Travel Range θX, θY, θZ *	±16 °, ±13 °, ±26 °
8	Unidirection Repeatability X, Y, Z *	±0.4 μm, ±0.4 μm, ±0.15 μm
9	Unidirection Repeatability θX, θY, θZ	±20 μrad, ±20 μrad, ±20 μrad
10	Minimum Incremental Motion X, Y, Z	20 nm, 20 nm, 20 nm
11	Minimum Incremental Motion θX, θY, θZ	4 μrad, 4 μrad, 4 μrad
12	Sensor Type	Optical Sensor
13	Sensor Resolution	2 nm
14	Controller	MF-Free6D

◆ Axes of Parallel kinematic system are not independent. The specified value represents the maximum Travel Range achievable under independent single-axis motion conditions.
For detail drawing and 3D model please contact us.

Specifications subject to change without notice.