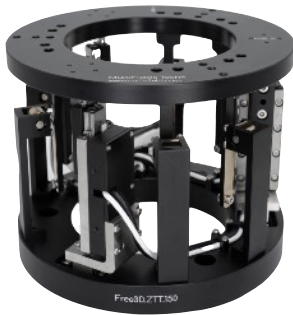


“FreeXD Series”

Multi Degrees of Freedom, Long Travel Range, Parallel Kinematic



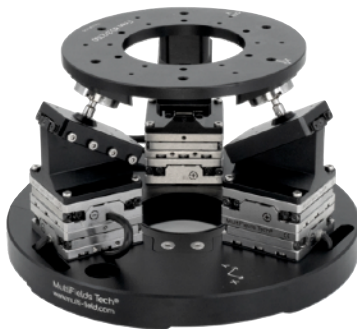
➔ Free3D.ZTxTy.150

ZTxTy Motion, Optical Sensor Feedback

Travel Range: Z: ± 5 mm & $\theta X, \theta Y$: $\pm 3^\circ$, $\pm 3^\circ$

Minimum Incremental Motion: Z: 25 nm & $\theta X, \theta Y$: 7.5 μ rad

Max. Payload: 3kg



➔ Free6D.3 - 2.150

XYZTxTyRz 6DoF Motion, Optical Sensor Feedback

Travel Range: XYZ: ± 10 mm, ± 10 mm, ± 5 mm;

$\theta x, \theta y, \theta z$: $\pm 10^\circ$, $\pm 10^\circ$, $\pm 20^\circ$

Minimum Incremental Motion: XYZ: 20 nm, 20 nm, 20 nm; $\theta X, \theta Y, \theta Z$: 1 μ rad, 1 μ rad, 1 μ rad

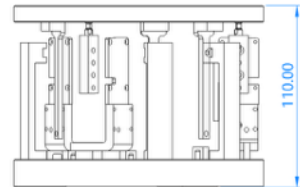
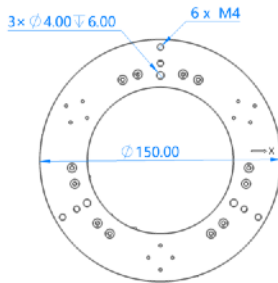
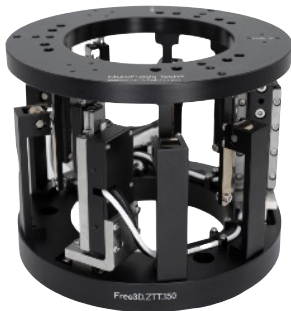
Max. Payload: 1kg

3DoF ZTxTy Stage — Free3D.ZTxTy.150

Parallel Kinematic, Clear Aperture, Flexible Design

- Feature
- Quiet Motion
 - Self-lock
 - Optical Sensor Inside
 - Nanometer Resolution
 - Parallel Kinematic
 - Customize Available

➤ Photo & Drawing



➤ Specification

Free3D.ZTxTy.150

1	Optional	.HV, High Vacuum Version; .UHV, Ultra High Vacuum Version;
2	Footprint x Height	Ø150 x 110 mm
3	Material	Aluminum
4	Cable & Connector	Standard/HV, shield cable and D-Sub15 plug; UHV, Kapton, PEEK D-Sub15
5	Max. Payload	3 kg
6	Mass	1.5 kg
7	Travel Range Z *	±5 mm
8	Travel RangeθX, θY *	±3 °, ±3 °
9	Velocity	1 mm/s ~ 10 mm/s
10	Minimum Incremental Motion Z	25 nm
11	Minimum Incremental MotionθX, θY	7.5 μrad, 7.5 μrad
12	Unidirection Repeatability Z	±0.15 μm
13	Unidirection Repeatability θX, θY	±2.5 μrad, ±2.5 μrad
14	Sensor Type	Optical Sensor
15	Sensor Resolution	2 nm
16	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.