COREMORROW
Piezo Nano Motion

Make Your Motion and Control More Accurate!

# 6 axes | H62.XYZTR25S/K

## Piezo Z/Tip/Tilt/Rotation Stage

## Introduction

H62 Piezo Hexapod is a piezo stage with 6-axis motion of θx, θy, θz, X, Y, and Z 6-axis movement in space is realized by the coordinated expansion and contraction of six piezoelectric actuators. The closed-loop model has high positioning accuracy. It is suited for applications such as microelectronics precision machining, test, etc.

## Characteristics »

- Motion in X, Y, Z, θx, θy, θz
- Optional closed-loop feedback sensor
- Load capacity up to 200g
- Low profile

## Applications »

- Optical beam scanning
- Light path adjustment
- Graphical stability
- Interference/metering
- Large loading tilt motion
- Space perturbation simulation system
- Calibration of acceleration sensor
- Calibration of angular velocity sensor


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## Technical Data »

| Type | S-Closed loop K-Open loop | H62.XYZTR25S | H62.XYZTR25K | Units |
|---|---|---|---|---|
| Active axes | | X, Y, Z, θx, θy, θz | X, Y, Z, θx, θy, θz | |
| Driving channels | | 7 | 7 | |
| XYZ travel range (0~120V) | | XY: ±80, Z: 160 | XY: ±80, Z: 160 | μm±20% |
| XYZ travel range (0~150V) | | XY: ±100, Z: 200 | XY: ±100, Z: 200 | μm±20% |
| θxθyθz deflection angle (0~120V) | | θxθy: ±10, θz: 1.28 | θxθy: ±10, θz: 1.28 | mrad±20% |
| θxθyθz deflection angle (0~150V) | | θxθy: ±12.5, θz: 1.6 | θxθy: ±12.5, θz: 1.6 | mrad±20% |
| Integrated sensor | | SGS | - | |
| Closed/open loop XYZ resolution | | 7 | 2 | nm |
| Closed/open loop θxθyθz resolution | | θxθy: 0.9、θz: 0.06 | θxθy: 0.25、θz: 0.01 | μrad |
| Closed-loop linearity | | 0.5 | - | %F.S. |
| Closed-loop repeatability | | 0.2 | - | %F.S. |
| Unloaded resonant frequency | | X140/Y150/Z200<br>θx270/θy280/θz110 | X140/Y150/Z200<br>θx270/θy280/θz110 | Hz±20% |
| Load capacity | | 0.2 | 0.2 | kg±5% |
| El. capacitance | | XYθxθy: 14.4<br>Z: 28.8 θz: 3.6 | XYθxθy: 14.4<br>Z: 28.8 θz: 3.6 | μF/axis±20% |
| Material | | Steel, Aluminum | Steel, Aluminum | |
| Operating temperature[1] | | -20~80 | -20~80 | ℃ |
| Mass | | 960(Not include cable) | 960(Not include cable) | g±5% |
| Cable length[2] | | 1.5 | 1.5 | m±10mm |
| Sensor/voltage connector[2] | | - | - | |

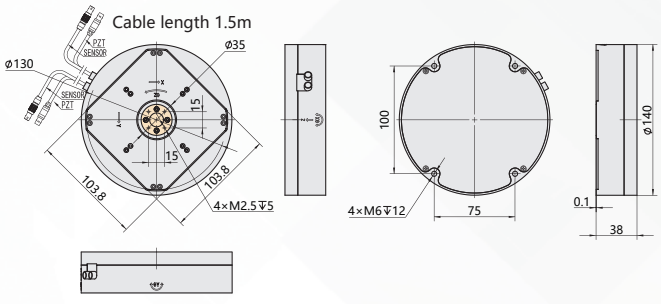
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation.Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

Note: The parallelism of the moving platform is about 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## Drawing »




## Recommended Controllers »

**E51.D7S**
7 channels, output voltage 0~120V
Driving 6-axis moiton piezo stage
Software control

**E01.A9**
1~9 channels, Open loop
Analog input/ Software control
Ave current 291mA

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