

Travel Range – 200  $\mu\text{m}$

Travel Range – 300  $\mu\text{m}$

[Carrier.S200.Z.C](#)

200  $\mu\text{m}$

[Carrier.S200.XY.C](#)

200  $\mu\text{m}$ , 200  $\mu\text{m}$

[Carrier.S200.XYZ.C](#)

200  $\mu\text{m}$ , 200  $\mu\text{m}$ , 200  $\mu\text{m}$

[Carrier.S300.XYZ.C](#)

300  $\mu\text{m}$ , 300  $\mu\text{m}$ , 300  $\mu\text{m}$

[Carrier.S200.XYRz.C](#)

200  $\mu\text{m}$ , 200  $\mu\text{m}$ ,  $\pm 2$  mrad

[Carrier.S200.ZTxTy.C](#)

200  $\mu\text{m}$ ,  $\pm 2$  mrad,  $\pm 2$  mrad

[Carrier.S200.XYZTxTyRz.C](#)

200  $\mu\text{m}$ , 200  $\mu\text{m}$ , 200  $\mu\text{m}$ ,  $\pm 2$  mrad,  
 $\pm 2$  mrad,  $\pm 2$  mrad

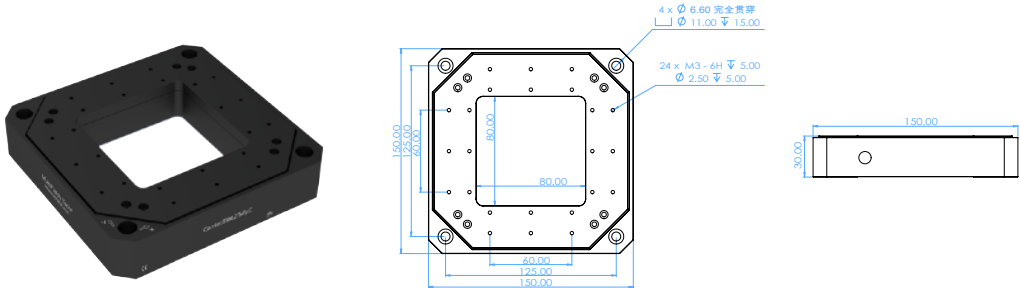
ZTxTy Piezo Scanner — Carrier.S100/200.ZTxTy.C

Versatile, High Performance, Clear Aperture, Tip and Tilt Motion

➡ Feature

- Piezo Stack Driving
  - Direct Metrology
- Flexure Guiding
  - Sub-nanometer Resolution
- CAP Sensor, Close-loop Control
  - Large Aperture

➡ Photo & Drawing



➡ Specification

|    |                                                   | Carrier.S100.ZTxTy.C                                                          | Carrier.S200.ZTxTy.C                    |
|----|---------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------|
| 1  | Optional                                          | .NM, Non-magnetic; .HV, High Vacuum Version; .UHV, Ultra High Vacuum Version; |                                         |
| 2  | Motion Direction                                  | Z, $\theta$ x, $\theta$ y                                                     |                                         |
| 3  | Footprint x Height                                | 150 x 150 x 30 mm                                                             |                                         |
| 4  | Material                                          | Aluminum, Stainless Steel                                                     |                                         |
| 5  | Travel Range(Z, $\theta$ x, $\theta$ y)           | 100 $\mu$ m, $\pm$ 1 mrad, $\pm$ 1 mrad                                       | 200 $\mu$ m, $\pm$ 2 mrad, $\pm$ 2 mrad |
| 6  | Aperture                                          | 80 x 80 mm                                                                    |                                         |
| 7  | ZLinearity                                        | 0.03%                                                                         |                                         |
| 8  | $\theta$ Linearity                                | 0.15%                                                                         |                                         |
| 9  | Z Resolution<br>(Close-loop/Open-loop)            | 1 nm / 0.5 nm                                                                 | 1.5 nm / 0.7 nm                         |
| 10 | $\theta$ Resolution<br>(Close-loop/Open-loop)     | 0.05 $\mu$ rad / 0.04 $\mu$ rad                                               | 0.1 $\mu$ rad / 0.06 $\mu$ rad          |
| 11 | Repeatability (Z/ $\theta$ )                      | 10 nm / $\pm$ 0.05 $\mu$ rad                                                  | 10 nm / $\pm$ 0.1 $\mu$ rad             |
| 12 | Stiffness                                         | 2 N/ $\mu$ m                                                                  | 1.5 N/ $\mu$ m                          |
| 13 | Z Resonant Frequency<br>(no load / 2.5 kg)        | 480 / 180 Hz                                                                  | 350 / 125 Hz                            |
| 14 | $\theta$ Resonant Frequency<br>(no load / 2.5 kg) | 500 / 190 Hz                                                                  | 370 / 110 Hz                            |
| 15 | Max. Payload                                      | 5 kg                                                                          |                                         |
| 16 | Sensor Type                                       | Capacitive                                                                    |                                         |
| 17 | Driving Voltage                                   | Max. 150 V                                                                    |                                         |
| 18 | Controller                                        | MC-Archimedes.N                                                               |                                         |

\* For detail drawing and 3D model please contact us.