

ANRv51

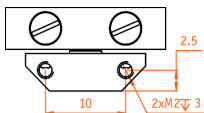
compact, open loop, rotary stepper positioner with horizontal rotation axis

Technical Specifications

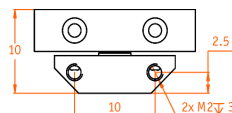
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|--|---------------------------------------|--|---|---------------------------------------|--|
| Technology | | | | Compatibility with Electronics | |
| travel mechanism | inertial piezo drive | | ANC300 piezo positioning controller | all versions | |
| | | | ANC350 piezo positioning controller | all versions | |
| Size and Dimensions | | | | Working Conditions | |
| footprint; height | 10 x 20; 21 mm | | mounting orientation | axis horizontal | |
| weight | 10 g | | magnetic field range | 0 .. 31 T | |
| through hole in the middle of the axis | Ø 1.5 mm | | temperature range (/RT, /HV, /UHV) | 0 .. 100 °C | |
| | | | temperature range (/LT, /LT/HV, /LT/UHV) | 10 mK .. 373 K | |
| | | | max. bake out temperature (/UHV, /LT/UHV) | 150 °C | |
| | | | minimum pressure (/RT, /LT) | 1E-4 mbar | |
| | | | minimum pressure (/HV, /LT/HV) | 1E-8 mbar | |
| | | | minimum pressure (/UHV, /LT/UHV) | 5E-11 mbar | |
| Coarse Positioning Mode | | @ 300 K | @ 4 K | Accuracy of Movement | |
| input voltage range | 0 .. 60 V | 0 .. 60 V | | repeatability of step sizes | typically 5 % over full range |
| typical actuator capacitance | 1.025 µF | 0.2 µF | | forward / backward step asymmetry | typically 5 % |
| travel range (step mode) | 360° endless, both directions | | | wobble | ± 1 mrad |
| typical minimum step size | 1 m° | 0.5 m° | | | |
| maximum drive velocity | ≈ 10 °/s | | | | |
| Fine Positioning Mode | | @ 300 K | @ 4 K | Connectors and Feedthroughs | |
| input voltage range | 0 .. 60 V | 0 .. 150 V | | /RT, /LT Versions | all /HV, /UHV Versions |
| fine positioning range | 0 .. 40 m° | 0 .. 6 m° | | connector type | 2-pole pin plug, 2-pole pin plug (PEEK), |
| fine positioning resolution | µ° | µ° | | Ø 0.5 mm, d = 2 mm, | Ø 0.5 mm, d = 2 mm, |
| | | | | 30 cm cable with connector | 30 cm cable with connector |
| | | | | electrical feedthrough solution | VFT/HV, VFT/UHV |
| | | | | | |
| Materials (non-magnetic) | | | | | |
| positioner body | titanium (other materials on request) | | | | |
| actuator | PZT ceramics | | | | |
| connecting wires | insulated twisted pair, copper | | | | |
| Load | | mounting orientation: axis horizontal (@ 300 K) | | | |
| maximum load | 0.2 N (20g) | | | | |
| maximum static torque around axis | 0.3 Ncm | | | | |
| maximum dynamic torque around axis | 0.2 Ncm | | | | |
| Mounting | | | | | |
| from the top | 2 threads M2 x 3 mm | | | | |
| from the bottom | 2 threads M2 x 3 mm | | | | |
| load on top | 2 threads M1.6 x 1 mm | | | | |
| Article Numbers | | | | | |
| /RT Version | 1003297 | | | | |
| /HV Version | 1003299 | | | | |
| /UHV Version | 1003300 | | | | |
| /LT Version | 1003298 | | | | |
| /LT/HV Version | 1003301 | | | | |
| /LT/UHV Version | 1003302 | | | | |

Technical Drawings

top view



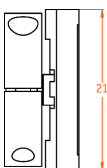
bottom view



3D view



side view



front view

