

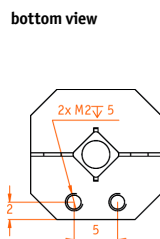
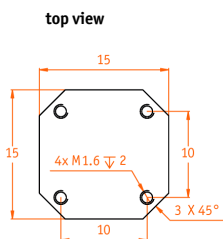
ANPz51

compact, open loop, linear, vertical stepper positioner

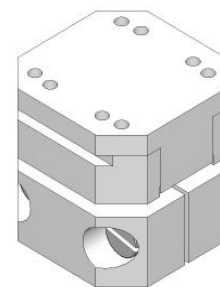
Technical Specifications

| | | | |
|--------------------------------------|---|---|---|
| Technology | | Compatibility with Electronics | |
| travel mechanism | inertial piezo drive | ANC300 piezo positioning controller | ANM150, ANM300 |
| Size and Dimensions | | Working Conditions | |
| footprint; height | 15 x 15; 13.5 mm | mounting orientation | axis vertical |
| maximum size | 15 x 15; 16 mm | magnetic field range | 0 .. 31 T |
| weight | 11 g | temperature range (/RT, /HV, /UHV) | 0 .. 100 °C |
| Coarse Positioning Mode | | temperature range (/LT, /LT/HV, /LT/UHV) | 10 mK .. 373 K |
| | @ 300 K | max. bake out temperature (/UHV, /LT/UHV) | 150 °C |
| input voltage range | 0 .. 60 V | minimum pressure (/RT, /LT) | 1E-4 mbar |
| typical actuator capacitance | 1.05 µF | minimum pressure (/HV, /LT/HV) | 1E-8 mbar |
| travel range (step mode) | 2.5 mm | minimum pressure (/UHV, /LT/UHV) | 5E-11 mbar |
| typical minimum step size | 50 nm | Accuracy of Movement | |
| maximum drive velocity | ≈ 1 mm/s | repeatability of step sizes | typically 5 % over full range |
| Fine Positioning Mode | | forward / backward step asymmetry | typically 5 - 10 % depending on load |
| | @ 300 K | Connectors and Feedthroughs | |
| input voltage range | 0 .. 100 V | /RT, /LT Versions | all /HV, /UHV Versions |
| fine positioning range | 0 .. 5 µm | connector type | 2-pole pin plug, ø 0.5 mm, d = 2 mm, 30 cm cable with connector |
| fine positioning resolution | sub-nm | electrical feedthrough solution | VFT/LT |
| Materials (non-magnetic) | | | |
| positioner body | titanium (upgrade option: beryllium copper) | | |
| actuator | PZT ceramics | | |
| connecting wires | insulated twisted pair, copper | | |
| Load (@ ambient conditions) | | | |
| | mounting orientation: axis vertical | | |
| maximum load | 0.5 N (50 g) | | |
| maximum dynamic force along the axis | 1 N | | |
| Mounting | | | |
| from the bottom | 2 threads M2 x 5 mm | | |
| load on top | 4 threads M1.6 x 2 mm | | |
| Article Numbers | | | |
| /RT Version | 1002229 | | |
| /HV Version | 1002225 | | |
| /UHV Version | 1002230 | | |
| /LT Version | 1002226 | | |
| /LT/HV Version | 1002227 | | |
| /LT/UHV Version | 1002228 | | |

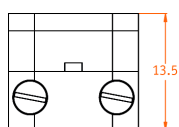
Technical Drawings



3D view



inner position



outer position

