ANPz102/RES/RT - linear znanopositioner



1009460

Technical Specifications

| footprint; height 24 mm x 24 mm; 27 mm maximum installation space 24 mm x 24 mm; 32 mm weight 55 g height 27 mm Materials 27 mm positioner body titanium actuator PZT ceramics connecting wires insulated twisted pair, copper Coarse Positioning Mode | Size and Dimensions | |
|--|---------------------------------------|--------------------------------|
| maximum installation space24 mm x 24 mm; 32 mmweight55 gheight27 mmMaterialspositioner bodytitaniumactuatorPZT ceramicsconnecting wiresinsulated twisted pair, copperCoarse Positioning Mode4.8 mmtravel range (step mode)4.8 mmmaximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 Vfine Positioning range @ 300 K3.5 µmfine positioning range @ 300 K0 - 100 VPosition Encoderreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution2 µm (unidirectional)sensor power (when measuring)0.01 - 1 mWrepeatability12 µm (unidirectional)Load (@ ambient conditions)200 gmaximum dynamic force along the axis5 N | footprint; height | 24 mm x 24 mm; 27 mm |
| height27 mmMaterials | | 24 mm x 24 mm; 32 mm |
| height27 mmMaterials | weight | 55 g |
| Materialspositioner bodytitaniumactuatorPZT ceramicsconnecting wiresinsulated twisted pair, copperCoarse Positioning Modetravel range (step mode)travel range (step mode)4.8 mmmaximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 VFine Positioning Modefine linear positioning range @ 300 Kfine inear positioning range @ 300 K3.5 µmfine positioning range @ 300 K0 - 100 VPosition Encoderreadout mechanismreadout mechanismresistive sensorencoded travel rangefull travelsensor power (when measuring)0.01 - 1 mWrepatability1.2 µm (unidirectional)Load (@ ambient conditions)200 gmaximum dynamic force along the axis5 N | | |
| actuatorPZT ceramicsconnecting wiresinsulated twisted pair, copperCoarse Positioning Mode | | |
| connecting wires insulated twisted pair, copper Coarse Positioning Mode travel range (step mode) 4.8 mm maximum drive velocity @ 300 K ~3 mm/s input voltage range 0 0 - 60 V Fine Positioning Mode fine positioning range @ 300 K 3.5 µm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V Position Encoder readout mechanism resistive sensor encoded travel range full travel sensor resolution ~200 nm sensor power (when measuring) 0.01 - 1 mW repeatability 0.01 - 1 mW repeatability 0.01 - 1 mW repeatability 0.01 - 1 mW | positioner body | titanium |
| Coarse Positioning Modetravel range (step mode)4.8 mmmaximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 VFine Positioning Mode0 - 60 Vfine linear positioning range @ 300 K3.5 µmfine positioning resolutionsub-nminput DC voltage range @ 300 K0 - 100 VPosition Encoderresistive sensorreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution.001 - 1 mWrepeatability1.2 µm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 gmaximum dynamic force along the axis5 N | actuator | PZT ceramics |
| travel range (step mode)4.8 mmmaximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 VFine Positioning Mode | connecting wires | insulated twisted pair, copper |
| maximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 VFine Positioning Mode3.5 μmfine linear positioning range @ 300 K3.5 μmfine positioning resolutionsub-nminput DC voltage range @ 300 K0 - 100 VPosition Encoderresistive sensorreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution0.01 - 1 mWrepeatability12 μm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 g | Coarse Positioning Mode | |
| maximum drive velocity @ 300 K~ 3 mm/sinput voltage range0 - 60 VFine Positioning Mode3.5 μmfine linear positioning range @ 300 K3.5 μmfine positioning resolutionsub-nminput DC voltage range @ 300 K0 - 100 VPosition Encoderresistive sensorreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution0.01 - 1 mWrepeatability12 μm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 g | travel range (step mode) | 4.8 mm |
| Fine Positioning Mode 3.5 µm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V Position Encoder readout mechanism readout mechanism resistive sensor encoded travel range full travel sensor resolution 0.01 - 1 mW repeatability 12 µm (unidirectional) Load (@ ambient conditions) 200 g maximum load 200 g | | ~ 3 mm/s |
| fine linear positioning range @ 300 K3.5 μmfine positioning resolutionsub-nminput DC voltage range @ 300 K0 - 100 VPosition Encoderresistive sensorreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution~ 200 nmsensor power (when measuring)0.01 - 1 mWrepeatability12 μm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 g | input voltage range | 0 - 60 V |
| fine positioning resolutionsub-nminput DC voltage range @ 300 K0 - 100 VPosition Encoderreadout mechanismreadout mechanismresistive sensorencoded travel rangefull travelsensor resolution~ 200 nmsensor power (when measuring)0.01 - 1 mWrepeatability12 µm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 gmaximum dynamic force along the axis5 N | Fine Positioning Mode | |
| input DC voltage range @ 300 K 0 - 100 V Position Encoder readout mechanism readout mechanism resistive sensor encoded travel range full travel sensor resolution ~ 200 nm sensor power (when measuring) 0.01 - 1 mW repeatability 12 µm (unidirectional) Load (@ ambient conditions) 200 g maximum load 200 g | fine linear positioning range @ 300 K | 3.5 μm |
| Position Encoder resistive sensor readout mechanism resistive sensor encoded travel range full travel sensor resolution ~ 200 nm sensor power (when measuring) 0.01 - 1 mW repeatability 12 μm (unidirectional) Load (@ ambient conditions) 200 g maximum load 200 g maximum dynamic force along the axis 5 N | fine positioning resolution | sub-nm |
| readout mechanism resistive sensor encoded travel range full travel sensor resolution ~200 nm sensor power (when measuring) 0.01 - 1 mW repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 200 g maximum dynamic force along the axis 5 N | input DC voltage range @ 300 K | 0 - 100 V |
| encoded travel rangefull travelsensor resolution~ 200 nmsensor power (when measuring)0.01 - 1 mWrepeatability12 μm (unidirectional)Load (@ ambient conditions)200 gmaximum load200 gmaximum dynamic force along the axis5 N | Position Encoder | |
| sensor resolution ~ 200 nm sensor power (when measuring) 0.01 - 1 mW repeatability 12 μm (unidirectional) Load (@ ambient conditions) 200 g maximum load 200 g maximum dynamic force along the axis 5 N | readout mechanism | resistive sensor |
| sensor power (when measuring) 0.01 - 1 mW repeatability 12 μm (unidirectional) Load (@ ambient conditions) 200 g maximum load 200 g maximum dynamic force along the axis 5 N | encoded travel range | full travel |
| repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 200 g maximum dynamic force along the axis 5 N | sensor resolution | ~ 200 nm |
| Load (@ ambient conditions)maximum load200 gmaximum dynamic force along the axis5 N | sensor power (when measuring) | 0.01 - 1 mW |
| maximum load200 gmaximum dynamic force along the axis5 N | repeatability | 12 μm (unidirectional) |
| maximum dynamic force along the axis 5 N | Load (@ ambient conditions) | |
| | | 200 g |
| General Specifications | maximum dynamic force along the axis | 5 N |
| | General Specifications | |
| environment /RT | environment | /RT |

