ANPx311/HL/RES/LT - linear x-nanopositioner



1008948

Technical Specifications

footprint; height 34 mm x 30 mm; 10 mm maximum installation space 34 mm x 36 mm; 10 mm weight 10 mm Materials Jo mm positioner body titanium actuator PZT ceramics connecting wires insulated twisted pair, copper Coarse Positioning Mode travel range (step mode) travel range (step mode) 5.8 mm maximum drive velocity @ 300 K ~ 3 mm/s input voltage range 0 - 60 V Fine Positioning Mode 5 μm fine linear positioning range @ 300 K 5 μm fine le positioning range @ 300 K 0.8 μm fine positioning range @ 4 K 0.8 μm fine positioning reage @ 300 K 0 - 100 V input DC voltage range @ 30 K 0 - 150 V Position Encoder resistive sensor sensor resolution - 200 nm repeatability 12 μm (unidirectional) Load (@ ambient conditions) 2 kg maximum dynamic force along the axis 2 kg General Specifications LT environment<	Size and Dimensions	
maximum installation space 34 mm x 36 mm; 10 mm weight 32 g height 10 mm Materials *** positioner body titanium actuator PZT ceramics connecting wires insulated twisted pair, copper Coarse Positioning Mode *** travel range (step mode) 5.8 mm maximum drive velocity @ 300 K ~ 3 mm/s input voltage range 0 - 60 V Fine Positioning Mode *** fine linear positioning range @ 300 K 5 μm fine linear positioning range @ 4 K 0.8 μm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder *** readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 1.2 μm (unidirectional) Load (@ ambient conditions) *** maximum dynamic force along the axis 2 N General Specifications **LT	footprint; height	34 mm x 30 mm; 10 mm
weight 32 g height 10 mm Materials PZT ceramics positioner body titanium actuator PZT ceramics connecting wires insulated twisted pair, copper Coarse Positioning Mode Tamm/s travel range (step mode) 5.8 mm maximum drive velocity @ 300 K ~ 3 mm/s input voltage range 0 - 60 V Fine Positioning Mode 5 μm fine linear positioning range @ 300 K 5 μm fine positioning range @ 300 K 0.8 μm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder - 200 nm readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 1.2 μm (unidirectional) Load (@ ambient conditions) 2 kg maximum dynamic force along the axis 2 N General Specifications /LT		34 mm x 36 mm; 10 mm
height 10 mm Materials PZT ceramics positioner body titanium actuator PZT ceramics connecting wires insulated twisted pair, copper Coarse Positioning Mode Travel range (step mode) maximum drive velocity @ 300 K ~ 3 mm/s input voltage range 0 - 60 V Fine Positioning Mode 5 μm fine linear positioning range @ 300 K 5 μm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 1.2 μm (unidirectional) Load (@ ambient conditions) maximum dynamic force along the axis 2 kg General Specifications L environment /LT		32 g
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connecting wires insulated twisted pair, copper Coarse Positioning Mode travel range (step mode) 5.8 mm maximum drive velocity @ 300 K ~3 mm/s input voltage range 0-60 V Fine Positioning Mode fine linear positioning range @ 300 K 5 µm fine linear positioning range @ 4 K 0.8 µm fine positioning resolution sub-nm input DC voltage range @ 300 K 0-100 V input DC voltage range @ 4 K 0-150 V Position Encoder readout mechanism resistive sensor sensor resolution reposition reposition necoder readout mechanism resistive sensor sensor resolution 200 nm repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis environment /LT	positioner body	titanium
Coarse Positioning Mode travel range (step mode)	actuator	PZT ceramics
travel range (step mode) maximum drive velocity @ 300 K input voltage range 0 - 60 V Fine Positioning Mode fine linear positioning range @ 300 K fine linear positioning range @ 4 K fine positioning resolution input DC voltage range @ 300 K input DC voltage range @ 300 K input DC voltage range @ 4 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load maximum dynamic force along the axis environment /LT	connecting wires	insulated twisted pair, copper
maximum drive velocity @ 300 K ~ 3 mm/s input voltage range 0 - 60 V Fine Positioning Mode fine linear positioning range @ 300 K 5 µm fine linear positioning range @ 4 K 0.8 µm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V input DC voltage range @ 4 K 0 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 6 eneral Specifications environment /LT	Coarse Positioning Mode	
input voltage range 0 - 60 V Fine Positioning Mode fine linear positioning range @ 300 K 5 μm fine linear positioning range @ 4 K 0.8 μm fine positioning resolution sub-nm input DC voltage range @ 300 K 0 - 100 V input DC voltage range @ 4 K 0 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 2 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	travel range (step mode)	5.8 mm
Fine Positioning Mode fine linear positioning range @ 300 K fine linear positioning range @ 4 K fine linear positioning range @ 4 K fine positioning resolution sub-nm input DC voltage range @ 300 K input DC voltage range @ 4 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	maximum drive velocity @ 300 K	~ 3 mm/s
fine linear positioning range @ 300 K fine linear positioning range @ 4 K fine positioning resolution sub-nm input DC voltage range @ 300 K input DC voltage range @ 4 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution - 200 nm repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	input voltage range	0 - 60 V
fine linear positioning range @ 4 K fine positioning resolution sub-nm input DC voltage range @ 300 K input DC voltage range @ 4 K 0 - 100 V input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution - 200 nm repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	Fine Positioning Mode	
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input DC voltage range @ 300 K input DC voltage range @ 4 K Position Encoder readout mechanism resistive sensor sensor resolution repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis General Specifications environment /LT	fine linear positioning range @ 4 K	0.8 μm
input DC voltage range @ 4 K 0 - 150 V Position Encoder readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	fine positioning resolution	sub-nm
Position Encoder readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 12 μm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	input DC voltage range @ 300 K	0 - 100 V
readout mechanism resistive sensor sensor resolution ~ 200 nm repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	input DC voltage range @ 4 K	0 - 150 V
sensor resolution ~ 200 nm repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	Position Encoder	
repeatability 12 µm (unidirectional) Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	readout mechanism	resistive sensor
Load (@ ambient conditions) maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT	sensor resolution	~ 200 nm
maximum load 2 kg maximum dynamic force along the axis 2 N General Specifications environment /LT		12 μm (unidirectional)
maximum dynamic force along the axis 2 N General Specifications /LT	Load (@ ambient conditions)	
General Specifications environment /LT		2 kg
environment /LT	maximum dynamic force along the axis	2 N
·	General Specifications	
min. first natural frequency 2600 Hz		/LT
	min. first natural frequency	2600 Hz

