

ANPz101/NUM

highest stability, open loop, linear, vertical stepper positioner with optoelectronic sensor

Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC350 piezo positioning controller	all versions
Size and Dimensions		Working Conditions	
footprint; height	24 x 28; 20 mm	mounting orientation	axis vertical
maximum size	24 x 28; 25 mm	magnetic field range	0 .. 7 T
weight	52.8 g	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
Coarse Positioning Mode @ 300 K		max. bake out temperature (/UHV)	150 °C
input voltage range	0 .. 60 V	minimum pressure (/RT)	1E-4 mbar
typical actuator capacitance	1.05 µF	minimum pressure (/HV)	1E-8 mbar
travel range (step mode)	5 mm	minimum pressure (/UHV)	5E-11 mbar
typical minimum step size	0.05 µm	Position Encoder	
maximum drive velocity	≈ 3 mm/s	readout mechanism	optoelectronic sensor
Fine Positioning Mode @ 300 K		sensor power (when measuring)	300 mW
input voltage range	0 .. 100 V	encoded travel range	full travel
fine positioning range	0 .. 5 µm	wavelength of illumination	860 nm
fine positioning resolution	sub-nm	sensor resolution	10 nm
Materials (non-magnetic)		repeatability	50 nm
positioner body	titanium (other materials on request)	linearity (over full travel)	< 0.01 %
actuator	PZT ceramics	absolute accuracy	< 0.01 % of travel range
connecting wires	insulated twisted pair, copper	Connectors and Feedthroughs	
Load		/RT Versions	all /HV, /UHV Versions
	mounting orientation: axis vertical (@ 300 K)	connector type	14-pole connector
maximum load	2 N (200 g)	electrical feedthrough solution	---
maximum static force along the axis	8 N	electrical feedthrough solution	---
maximum dynamic force along the axis	5 N		
Mounting			
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	2 threads M2.5 x 3.4 mm		
load on top	10 threads M2 x 3.3 mm		
Article Numbers			
/RT Version	1002657		
/HV Version	1002658		
/UHV Version	1002682		

Technical Drawings

