

ANR101

open loop, rotary stepper positioner with vertical rotation axis providing highest stability

Technical Specifications

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	24 x 24 (Ø 30); 15.2 mm (17.2 mm incl. adapterplate)	mounting orientation	axis vertical
weight	36 g	magnetic field range	0 .. 31 T
through hole in the middle of the axis	Ø 2 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	0.6 µF 0.1 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	≈ 30 °/s		
Fine Positioning Mode @ 300 K @ 4 K		Connectors and Feedthroughs /RT, /LT Versions all /HV, /UHV Versions	
input voltage range	0 .. 120 V 0 .. 150 V	connector type	2-pole pin plug, 2-pole pin plug (PEEK),
fine positioning range	0 .. 70 m° 0 .. 14 m°		Ø 0.5 mm, d = 2 mm,
fine positioning resolution	µ° µ°		integrated connector
		electrical feedthrough solution	VFT/LT 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 vertical (@ 300 K)	
maximum load	1 N (100 g)		
maximum static torque around axis	1 Ncm		
maximum dynamic torque around axis	0.8 Ncm		
Mounting			
from the top	2 through holes dia 2.4 mm, cntrbr. f. M2		
from the bottom	2 threads M2.5 x 5.5 mm		
load on top	6 threads M2 x 3 mm		
Article Numbers			
/RT Version	1002210		
/HV Version	1002209		
/UHV Version	1002205		
/LT Version	1002206		
/LT/HV Version	1002207		
/LT/UHV Version	1002208		

Technical Drawings

