

ANR240/RES

closed loop, rotary stepper positioner with vertical rotation axis and resistive encoder

Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC350 piezo positioning controller	ANC350/RES
Size and Dimensions		Working Conditions	
footprint; height	35 x 35 (Ø 34); 13.5 mm	mounting orientation	axis horizontal or vertical
weight	68 g	magnetic field range	0 .. 31 T
through hole in the middle of the axis	Ø 12.7 mm	temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
Coarse Positioning Mode		max. bake out temperature (/UHV, /LT/UHV)	150 °C
	@ 300 K	@ 4 K	
input voltage range	0 .. 60 V	0 .. 60 V	minimum pressure (/RT, /LT)
typical actuator capacitance	2.1 µF	0.3 µF	1E-4 mbar
travel range (step mode)	360° endless, both directions		minimum pressure (/HV, /LT/HV)
typical minimum step size	1 m°	0.5 m°	1E-8 mbar
maximum drive velocity	≈ 30 °/s		minimum pressure (/UHV, /LT/UHV)
			5E-11 mbar
Fine Positioning Mode		Accuracy of Movement	
	@ 300 K	@ 4 K	wobble
input voltage range	0 .. 100 V	0 .. 150 V	± 100 µrad
fine positioning range	0 .. 40 m°	0 .. 6 m°	
fine positioning resolution	µ°	µ°	
Materials (non-magnetic)		Position Encoder	
positioner body	beryllium copper and titanium		readout mechanism
actuator	PZT ceramics		resistive sensor
connecting wires	insulated twisted pair, copper		sensor power (when measuring)
			1 µW .. 1 mW
			encoded travel range
			315°
			sensor resolution
			≈ 6 m°
			repeatability
			≈ 50 m°
			linearity (over full travel)
			< 1%
			absolute accuracy
			typically < 1.5 % of travel range
Load (@ ambient conditions)		Connectors and Feedthroughs	
	mounting orientation: axis vertical	/RT, /LT Versions	all /HV, /UHV Versions
maximum load	2 N (200 g)	connector type	2-pole pin plug, Ø 0.5 mm, d = 2 mm, 30 cm cable with connector
maximum dynamic torque around axis	2 Ncm	encoder connector	additional 3-pole plug
		electrical feedthrough solution	VFT/LT
			30 cm cable with connector additional 3-pole plug (PEEK) VFT/HV, VFT/UHV
Mounting			
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	2 threads for M2.5 x 5 mm		
from the left	2 threads for M2.5 x 3.5 mm		
load on top	6 threads for M2 x 2.5 mm		
Article Numbers			
/RT Version	1005036		
/HV Version	1005037		
/UHV Version	1005039		
/LT Version	1005041		
/LT/HV Version	1005042		
/LT/UHV Version	1005044		

Technical Drawings

