

ANRv101/RES

open loop, rotary stepper positioner with horizontal rotation axis and with resistive sensor providing highest st

Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC350 piezo positioning controller	all versions
Size and Dimensions		Working Conditions	
footprint; height	15 x 30; 33 mm	mounting orientation	axis horizontal
weight	37 g	magnetic field range	0 .. 31 T
through hole in the middle of the axis	Ø 2 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	0.6 µF	0.1 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 .. 120 V	0 .. 150 V	± 1 mrad
fine positioning range	0 .. 70 m°	0 .. 14 m°	
fine positioning resolution	µ°	µ°	
Materials (non-magnetic)		Position Encoder	
positioner body	titanium (other materials on request)		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 % of travel range
Load		Connectors and Feedthroughs	
	mounting orientation: axis horizontal (@ 300 K)		
maximum load	0.5 N (50g)	/RT, /LT Versions	all /HV, /UHV Versions
maximum static torque around axis	1 Ncm	connector type	2-pole pin plug, Ø 0.5 mm, d = 2 mm, 30 cm cable with connector
maximum dynamic torque around axis	0.8 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 bottom	2 threads M2.5 x 4 mm		
from the top	2 threads M2.5 x 4.5 mm		
load on top	6 threads M2 x 3 mm		
Article Numbers			
/RT Version	1002261		
/HV Version	1002256		
/UHV Version	1002262		
/LT Version	1002257		
/LT/HV Version	1002259		
/LT/UHV Version	1002260		

Technical Drawings

