

ANR200/RES

ANR200 with resistive encoder for closed loop operation

Technology	
travel mechanism	inertial piezo drive
Size and Dimensions	
footprint; height	35 x 35 (Ø 34); 13,5 mm
aperture size	Ø 12,7 mm
Coarse Positioning Mode	
travel (step mode)	360° endless, both directions
typical minimum step size	1 m° @ 300 K, 0,5 m° @ 4 K
maximum speed (@ 300 K, no load)	approx. 10 °/s
Fine Positioning Mode	
scan range	50 m° @ 300 K, 7,2 m° @ 4 K
scan resolution	µ° resolution
Materials (non-magnetic)	
positioner body	Titanium, Beryllium copper
actuator	PZT ceramics
connecting wires	insulated twisted pair, Cu
weight	68 g
Load	
maximum vertical load	200 g
maximum static torque around axis	3 Ncm
maximum dynamic torque around axis	2 Ncm
maximum torque perpendicular to axis	20 Ncm
Mounting	
frontside mounting	two through holes for M2
backside mounting	two threads M2,5 x 5,5 mm
load mounting	six threads M2 x 4 mm
Article Numbers	
/RT Version	/LT Version
/HV Version	/LT/HV Version
/UHV Version	/LT/UHV Version
Compatibility with Electronics	
ANC350 piezo positioning controller	all versions

Working Conditions		
mounting orientation	axis horizontal or vertical	
magnetic field range	0 .. 31 T	
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	
Connectors and Feedthroughs		
	/RT, /LT Versions	all /HV, /UHV Versions
connector type	2-pole pin plug, Ø 0.5 mm, d = 2 mm,	2-pole pin plug (PEEK), Ø 0.5 mm, d = 2 mm,
connector type	30 cm cable with connector	30 cm cable with connector
electrical feedthrough solution	VFT/LT	VFT/HV, VFT/UHV
encoder connector	additional 3-pole plug	additional 3-pole plug (Peek)
Temperature Dependent Data		
	@ 300K	@ 4K (only /LT versions)
input voltage range	0 .. +100 V	0 .. +100 V
typical actuator capacitance	2100 nF	300 nF
typical step size (min .. max)	1 .. 15 m°	0,5 .. 3 m°
fine positioning range	50 m°	7,2 m°
Accuracy of Movement		
repeatability of step sizes	typically 5 % over full range	
forward / backward step asymmetry	typically 5 %	
readout mechanism		
readout mechanism	resistive encoder, potentiometric measurement	
sensor power (when measuring)	< 1 mW possible	
encoded travel range	340°	
sensor resolution	approx. 6 m°	
repeatability	approx. 30 m°	
Wobble		
	± 0,2 mrad	

