

ANR200

rotary stepper positioner with horizontal rotation axis with large aperture

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	73 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	1004092	/LT Version	1004095
/HV Version	1004093	/LT/HV Version	1004096
/UHV Version	1004094	/LT/UHV Version	1004097

Compatibility with Electronics	
ANC106 piezo step controller	/RT version only
ANC300 piezo positioning controller	all versions

Working Conditions	
mounting orientation	axis horizontal
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	COC230/LT	COC230/HV, COC230/UHV

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 .. 30 m°	0.5 .. 15 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 %

Position Encoder	
encoder options	(on request)

Drawings

