

AND100 NanoDrive

ultra flat rotary stepper positioner with vertical rotation axis

Technology	
travel mechanism	inertial piezo drive

Size and Dimensions	
footprint; height	∅ 14; 3.3 mm

Coarse Positioning Mode	
travel (step mode)	360° endless, both directions
typical minimum step size	1 m° @ 300 K
maximum speed (@ 300 K, no load)	approx. 10 °/s

Fine Positioning Mode	
scan range	0.05°
scan resolution	μ° resolution

Materials (non-magnetic)	
positioner body	Stainless Steel
actuator	PZT ceramics
connecting wires	three pole PCB flat cable
weight	20 g

Load	
maximum vertical load	10 g

Mounting	
frontside mounting	mount by glueing
backside mounting	---
load mounting	mount by glueing

Article Numbers	
/RT Version	1000038
/HV Version	1000050
/UHV Version	1000039
/LT Version	---
/LT/HV Version	---
/LT/UHV Version	---

Compatibility with Electronics	
ANC106 piezo step controller	/RT version only
ANC150 piezo step controller	all versions
ANC200 piezo scan controller	all versions
ANC300 piezo positioning controller	all versions

Working Conditions	
mounting orientation	axis vertical
magnetic field range	---
temperature range (/RT, /HV, /UHV)	0 .. 100 °C
temperature range (/LT, /LT/HV, /LT/UHV)	---
max. bake out temperature (/UHV, /LT/UHV)	100 °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	3 pole connector flat cable	3 pole connector flat cable
connector type	bipolar	bipolar
electrical feedthrough solution	COC230/LT	COC230/HV, COC230/UHV

Temperature Dependent Data	@ 300K	@ 4K (only /LT versions)
input voltage range	-150 .. +150 V	---
typical actuator capacitance	---	---
typical step size (min .. max)	---	---
fine positioning range	0.05° @ 300 K	---

Accuracy of Movement	
repeatability of step sizes	typically 5 % over full range
forward / backward step asymmetry	typically 5 %

Position Encoder	
encoder options	---

