

ANPz101/NUM

linear, vertical stepper positioner with optoelectronic encoder for closed loop operation

Technology	
travel mechanism	inertial piezo drive

Size and Dimensions	
footprint; height	24 x 28; 20 mm
maximum size (outer position)	24 x 28; 25 mm

Travel and Accuracy of Positioning	
travel	5 mm
encoder type	optoelectronic encoder (non-contact)
sensor resolution	10 nm
repeatability	400 nm
linearity (over full travel)	0.01%
absolute accuracy	approx. 1 µm
maximum speed (@ 300 K, no load)	approx. 3 mm/s

Working Conditions	
mounting orientation	axis vertical
magnetic field range	---
temperature range (/RT, /HV, /UHV)	0 .. 100 °C
max. bake out temperature (/UHV)	150°C
minimum pressure (/RT)	1E-4 mbar
minimum pressure (/HV)	1E-8 mbar
minimum pressure (/UHV)	5E-11 mbar

Load	
maximum vertical load	200 g
maximum static forces along the axis	8 N
maximum dynamic force along the axis	5 N
maximum torque on the axis	30 Ncm

Electrical Specifications	
input voltage range	0 .. +100 V
typical actuator capacitance	1050 nF

Connectors and Feedthroughs	/RT Version	/HV, /UHV Version
connector type	14-pole connector	15-pin Sub-D
electrical feedthrough solution	---	COC230/HV, COC230/UHV

Materials	
positioner body	Titanium (other materials on request)
actuator	PZT ceramics
connecting wires	insulated Cu wires
weight	45.5 g

Mounting	
frontside mounting	two through holes for M2
backside mounting	two threads M2.5 x 4 mm
load mounting	twelve threads M2 x 2.4 mm

Compatibility with Electronics	
ANC350 piezo controller	all versions

Article Numbers	
/RT Version	1002411
/HV Version	1002412
/UHV Version	1002682

Drawings

