

# ANPx51

compact, open loop, linear, horizontal stepper positioner

## Technical Specifications

<b>Technology</b>		<b>Compatibility with Electronics</b>	
travel mechanism	inertial piezo drive	ANC300 piezo positioning controller	ANM150, ANM300
<b>Size and Dimensions</b>		<b>Working Conditions</b>	
footprint; height	15 x 15; 9.2 mm	mounting orientation	axis horizontal
maximum size	15 x 18; 9.2 mm	magnetic field range	0 .. 31 T
weight	7 g	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
<b>Coarse Positioning Mode</b>		temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
	<b>@ 300 K</b>	max. bake out temperature (/UHV, /LT/UHV)	150 °C
input voltage range	0 .. 60 V	minimum pressure (/RT, /LT)	1E-4 mbar
typical actuator capacitance	1.05 µF	minimum pressure (/HV, /LT/HV)	1E-8 mbar
travel range (step mode)	3 mm	minimum pressure (/UHV, /LT/UHV)	5E-11 mbar
typical minimum step size	50 nm	<b>Accuracy of Movement</b>	
maximum drive velocity	≈ 1 mm/s	repeatability of step sizes	typically 5 % over full range
<b>Fine Positioning Mode</b>		forward / backward step asymmetry	typically 5 %
	<b>@ 300 K</b>	<b>Connectors and Feedthroughs</b>	
input voltage range	0 .. 100 V	<b>/RT, /LT Versions</b>	<b>all /HV, /UHV Versions</b>
fine positioning range	0 .. 5 µm	connector type	2-pole pin plug, 2-pole pin plug (PEEK), ø 0.5 mm, d = 2 mm,
fine positioning resolution	sub-nm	30 cm cable with connector	ø 0.5 mm, d = 2 mm,
<b>Materials (non-magnetic)</b>		electrical feedthrough solution	30 cm cable with connector
positioner body	titanium (upgrade option: beryllium copper)	VFT/LT	VFT/HV, VFT/UHV
actuator	PZT ceramics		
connecting wires	insulated twisted pair, copper		
<b>Load (@ ambient conditions)</b>		<b>mounting orientation: axis horizontal</b>	
maximum load	0.25 N (25 g)		
maximum dynamic force along the axis	1 N		
<b>Mounting</b>			
from the top	2 through holes dia 1.7 mm, cntrbr. f. M1.6		
from the bottom	2 threads M2 x 2.5 mm		
load on top	4 threads M1.6 x 2.5 mm		
<b>Article Numbers</b>			
/RT Version	1002223		
/HV Version	1002219		
/UHV Version	1002224		
/LT Version	1002220		
/LT/HV Version	1002221		
/LT/UHV Version	1002222		

## Technical Drawings

