

# ANPx341

open loop, bearing based, 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	40 x 45; 11.5 mm	mounting orientation	axis horizontal
maximum size	40 x 53.3; 11.5 mm	magnetic field range	0 .. 31 T (optional)
weight	76 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	1.55 µF	minimum pressure (/HV, /LT/HV)	1E-8 mbar
travel range (step mode)	20 mm	minimum pressure (/UHV, /LT/UHV)	5E-11 mbar
typical minimum step size	100 nm	<b>Accuracy of Movement</b>	
maximum drive velocity	≈ 3 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>	
	<b>@ 4 K</b>	<b>/RT, /LT Versions</b>	<b>all /HV, /UHV Versions</b>
input voltage range	0 .. 100 V	connector type	2-pole pin plug, 2-pole pin plug (PEEK),
fine positioning range	0 .. 7.5 µm		ø 0.5 mm, d = 2 mm, ø 0.5 mm, d = 2 mm,
fine positioning resolution	sub-nm		30 cm cable with connector 30 cm cable with connector
<b>Materials</b>		electrical feedthrough solution	VFT/LT VFT/HV, VFT/UHV
positioner body	titanium		
actuator	PZT ceramics		
connecting wires	insulated twisted pair, copper		
bearings	stainless steel (ceramics optional)		
<b>Load (@ ambient conditions)</b>		<b>mounting orientation: axis horizontal</b>	
maximum load	120 N (12 kg)		
maximum dynamic force along the axis	2 N		
<b>Mounting</b>			
from the top	4 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	4 threads M2.5 x 2 mm		
load on top	10 threads M 2 x 3 mm		
<b>Article Numbers</b>			
/RT Version	1006750		
/HV Version	1006751		
/UHV Version	1006752		
/LT Version	1007261		
/LT/HV Version	1007262		
/LT/UHV Version	1007263		

## Technical Drawings

