

# ANPz51/RES/LT/HV - linear z-nanopositioner

1003271

## Technical Specifications

<b>Size and Dimensions</b>	
footprint; height	15 mm x 18 mm; 13.5 mm
maximum installation space	15 mm x 18 mm; 16 mm
weight	13 g
height	13.5 mm
<b>Materials</b>	
positioner body	titanium
actuator	PZT ceramics
connecting wires	insulated twisted pair, copper
<b>Coarse Positioning Mode</b>	
travel range (step mode)	2.5 mm
maximum drive velocity @ 300 K	~ 1 mm/s
input voltage range	0 - 60 V
typical actuator capacitance @ 300 K [ $\mu$ F]	1.11
typical minimum step size @ 300 K	50 nm
<b>Fine Positioning Mode</b>	
fine linear positioning range @ 300 K	3.5 $\mu$ m
fine linear positioning range @ 4 K	0.5 $\mu$ m
fine positioning resolution	sub-nm
input DC voltage range @ 300 K	0 - 100 V
input DC voltage range @ 4 K	0 - 150 V
<b>Position Encoder</b>	
readout mechanism	resistive sensor
encoded travel range	full travel
sensor resolution	~ 200 nm
sensor power (when measuring)	0.01 - 1 mW
repeatability	1..2 $\mu$ m (unidirectional)
<b>Load (@ ambient conditions)</b>	
maximum load	50 g
maximum dynamic force along the axis	1 N
<b>General Specifications</b>	
environment	/LT/HV

