

# ANPx312

## Technical Specifications

Technology	
travel mechanism	inertial piezo drive
positioner type	linear
Size and Dimensions	
footprint; height	30x30; 12mm
max installation space	36x30; 12mm
weight	42 g
Materials	
positioner body	titanium
actuator	PZT ceramics
connecting wires	insulated twisted pair, copper
bearings	ceramics
Options	
environmental options	/HV, /LT, /LT/HV, /LT/UHV, /RT, /UHV
Compatibility with Electronics	
ANC300 piezo positioning controller	ANM150, ANM300
Load (@ ambient conditions)	
maximum load	20 N
maximum dynamic force along the axis	2 N
Coarse Positioning Mode	
input voltage range	0 - 60 V
travel range (step mode)	6 mm
maximum drive velocity @ 300 K	approx. 3 mm/s
Fine Positioning Mode	
fine positioning resolution	sub-nm
fine positioning range @ 300 K	5 µm
fine positioning range @ 4 K	0.8 µm
input DC voltage range @ 300 K	0 - 100 V
input DC voltage range @ 4 K	0 - 150 V

Accuracy of Movement	
repeatability of step sizes	typically 5 % over full range
typ. forward / backward step asymmetry	typically 5 %
Working Conditions	
mounting orientation	axis horizontal
magnetic field range	0 - 31 T
minimum pressure (/RT)	ambient
minimum pressure (/HV)	1E-8 mbar
minimum pressure (/UHV)	5E-11 mbar
temperature range (/RT)	273K .. 373K
temperature range (/LT)	10mK .. 373K
Connectors and Feedthroughs	
cable	30 cm cable with connector
connector type	2-pole pin plug, ø 0.5 mm, d = 2 mm
electrical feedthrough solution	VFT/LT
High Load Option (/HL)	
/HL/RT - maximum dynamic force	2 N
/HL/(U)HV - maximum dynamic force	1 N
/HL/LT - maximum dynamic force	0.75 N
Versions	
/RT version	1013512
/HV version	1013516
/UHV version	1013518
/LT version	1013514
/LT/HV version	1013520
/LT/UHV version	1013523