

ANPx101

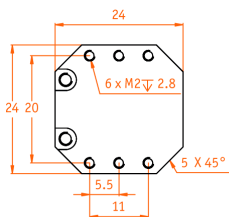
open loop, linear, horizontal stepper positioner

Technical Specifications

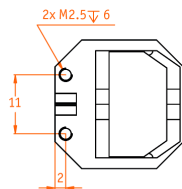
Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC300 piezo positioning controller	ANM150, ANM300
Size and Dimensions		Working Conditions	
footprint; height	24 x 24; 11 mm	mounting orientation	axis horizontal
maximum size	24 x 29; 11 mm	magnetic field range	0 .. 31 T
weight	20 g	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
Coarse Positioning Mode		temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
	@ 300 K	@ 4 K	max. bake out temperature (/UHV, /LT/UHV)
input voltage range	0 .. 60 V	0 .. 60 V	150 °C
typical actuator capacitance	1.05 µF	0.15 µF	minimum pressure (/RT, /LT)
travel range (step mode)	5 mm	5 mm	1E-4 mbar
typical minimum step size	50 nm	10 nm	minimum pressure (/HV, /LT/HV)
maximum drive velocity	≈ 3 mm/s		1E-8 mbar
			minimum pressure (/UHV, /LT/UHV)
			5E-11 mbar
Fine Positioning Mode		Accuracy of Movement	
	@ 300 K	@ 4 K	repeatability of step sizes
input voltage range	0 .. 100 V	0 .. 150 V	typically 5 % over full range
fine positioning range	0 .. 5 µm	0 .. 0.8 µm	forward / backward step asymmetry
fine positioning resolution	sub-nm	sub-nm	typically 5 %
Materials (non-magnetic)		Connectors and Feedthroughs	
positioner body	titanium (upgrade option: beryllium copper)	/RT, /LT Versions	all /HV, /UHV Versions
actuator	PZT ceramics	connector type	2-pole pin plug, 2-pole pin plug (PEEK),
connecting wires	insulated twisted pair, copper		ø 0.5 mm, d = 2 mm,
		electrical feedthrough solution	integrated connector 30 cm cable with connector
			VFT/HV, VFT/UHV
			VFT/LT
Load (@ ambient conditions)		mounting orientation: axis horizontal	
maximum load	1 N (100 g)		
maximum dynamic force along the axis	2 N		
Mounting			
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	2 threads M2.5 x 6 mm		
load on top	6 threads M2 x 2.8 mm		
Article Numbers			
/RT Version	1001317		
/HV Version	1001313		
/UHV Version	1001314		
/LT Version	1001285		
/LT/HV Version	1001316		
/LT/UHV Version	1001315		
	1001315		

Technical Drawings

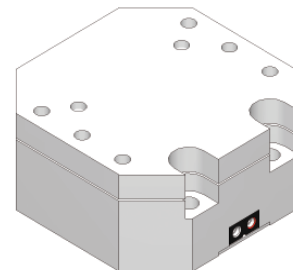
top view



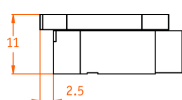
bottom view



3D view



inner position



outer position

