

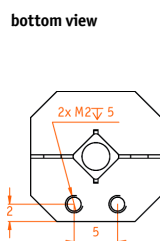
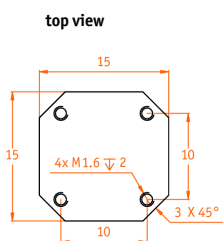
ANPz51

compact, open loop, linear, vertical stepper positioner

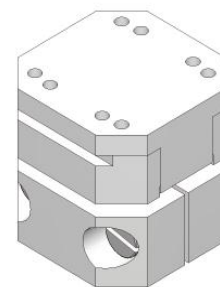
Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	inertial piezo drive	ANC300 piezo positioning controller	ANM150, ANM300
Size and Dimensions		Working Conditions	
footprint; height	15 x 15; 13.5 mm	mounting orientation	axis vertical
maximum size	15 x 15; 16 mm	magnetic field range	0 .. 31 T
weight	11 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)	2.5 mm	2.5 mm	1E-4 mbar
typical minimum step size	50 nm	10 nm	minimum pressure (/HV, /LT/HV)
maximum drive velocity	≈ 1 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	forward / backward step asymmetry
fine positioning resolution	sub-nm	sub-nm	typically 5 - 10 % depending on load
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, ø 0.5 mm, d = 2 mm,
			30 cm cable with connector 30 cm cable with connector
Load (@ ambient conditions)		electrical feedthrough solution	VFT/LT VFT/HV, VFT/UHV
	mounting orientation: axis vertical		
maximum load	0.5 N (50 g)		
maximum dynamic force along the axis	1 N		
Mounting			
from the bottom	2 threads M2 x 5 mm		
load on top	4 threads M1.6 x 2 mm		
Article Numbers			
/RT Version	1002229		
/HV Version	1002225		
/UHV Version	1002230		
/LT Version	1002226		
/LT/HV Version	1002227		
/LT/UHV Version	1002228		

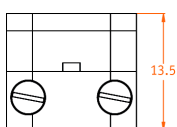
Technical Drawings



3D view



inner position



outer position

