ANPz101eXT12

open loop, linear, vertical stepper positioner with extended travel range

Technical Specifications

travel mechanism	inertial piezo drive	
Size and Dimensions		
footprint; height	24 x 24; 32 mm	
maximum size	24 x 24; 44 mm	
weight	62 g	
Coarse Positioning Mode	@ 300 K	@ 4 K
input voltage range	0 60 V	060 V
typical actuator capacitance	1.55 μF	220 nF
travel range (step mode)	12 mm	12 mm
typical minimum step size	50 nm	10 nm
maximum drive velocity	≈ 3 mm/s	
Fine Positioning Mode	@ 300 K	@ 4 K
input voltage range	0 100 V	0 150 V
fine positiong range	0 7.5 μm	0 1.2 μm
fine positioning resolution	sub-nm	sub-nm
Materials (non-magnetic)		
positioner body	titanium (upgrade option: beryllium copper)	
actuator	PZT ceramics	
connecting wires	insulated twisted pair, copper	
Load (@ ambient conditions)	mounting orient	ation: axis vertical
maximum load	2 N (200 g)	
maximum dynamic force along the axis	5 N	
Mounting		
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2	
from the bottom	2 threads M2.5 x 3.4 mm	
load on top	10 threads M2 x 3.3 mm	
Article Numbers		
Article Numbers /RT Version	1005140	

1005142

1005143

1005144

1005145

ANC300 piezo positioning contro	ller	ANM150, ANM3	00	
Working Conditions				
mounting orientation		axis vertical		
magnetic field range		031T		
temperature range (/RT, /HV, /U		0100 °C		
temperature range (/LT, /LT/HV, /LT/UHV)		10 mK 373 K		
max. bake out temperature (/UHV, /LT/UHV)		150 °C		
minimum pressure (/RT, /LT)		1E-4 mbar		
minimum pressure (/HV, /LT/HV)		1E-8 mbar		
minimum pressure (/UHV, /LT/U	HV)	5E-11 mbar		
Accuracy of Movement				
epeatability of step sizes		typically 5 % ov	er full range	
forward / backward step asymme	try	typically 5 - 10	% depending on load	
Connectors and Feedthroughs	/RT, /LT Ver	rsions	all /HV, /UHV Versions	
connector type	2-pole pin p		2-pole pin plug (PEEK),	
	ø 0.5 mm, d		ø 0.5 mm, d = 2 mm,	
	integrated c	connector	30 cm cable with connector	
electrical feedthrough solution	VFT/LT		VFT/HV, VFT/UHV	
	/			

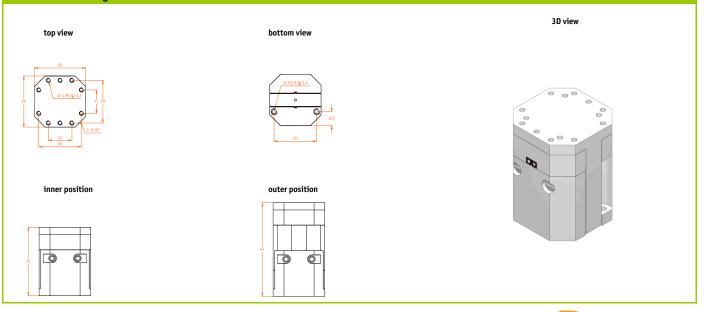
Technical Drawings

/UHV Version

/LT/HV Version

/LT/UHV Version

/LT Version





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