ANPz30

most compact, open loop, linear, vertical stepper positioner

Technical Specifications

travel mechanism	inertial piezo drive		
Size and Dimensions			
footprint; height	ø 11; 12 mm		
maximum size	ø 11; 14.5 mm		
weight	3.8 g		
Coarse Positioning Mode	@ 300 K	@ 4 K	
input voltage range	060V	060V	
typical actuator capacitance	1.05 μF	0.15 μF	
travel range (step mode)	2.5 mm	2.5 mm	
typical minimum step size	50 nm	10 nm	
maximum drive velocity	≈ 1 mm/s		
Fine Positioning Mode	@ 300 K	@ 4 K	
input voltage range	0100 V	0150 V	
fine positiong range	0.5µm	00.8 µm	
fine positioning resolution	sub-nm	sub-nm	
Materials (non-magnetic)			
positioner body	beryllium copper and titanium		
actuator	PZT ceramics		
connecting wires	insulated twisted pair, copper		
Load (@ ambient conditions)	mounting orien	tation: axis vertical	
maximum load	0.1 N (10 g)		
maximum dynamic force along the axis	0.2 N		
Mounting			
from the bottom	2 threads M2 x 1 mm		
load on top	2 threads M1.6 x 1 mm		
Article Numbers			
/RT Version	1000028		
/HV Version	1000046		
/UHV Version	1000013		
/IT Version	100006		

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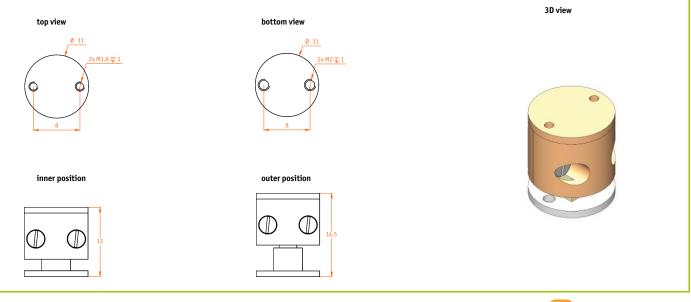
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ANC300 piezo positioning controller		ANM150, ANM300		
Working Conditions				
mounting orientation		axis vertical		
magnetic field range		031T		
temperature range (/RT, /HV, /UHV)		0100 °C		
temperature range (/LT, /LT/HV, /LT/UHV)		10 mK 373 K		
max. 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/UHV)		5E-11 mbar		
Accuracy of Movement				
repeatability of step sizes	typically 5 % o		•	
forward / backward step asymmet	try	typically 5 - 10	% depending on load	
Connectors and Feedthroughs	/RT, /LT Ver	sions	all /HV, /UHV Versions	
connector type	2-pole pin plug,		2-pole pin plug (PEEK),	
	ø 0.5 mm, d = 2 mm,		ø 0.5 mm, d = 2 mm,	
		with connector	30 cm cable with connector	
electrical feedthrough solution	VFT/LT		VFT/HV, VFT/UHV	

Technical Drawings

/LT Version /LT/HV Version

/LT/UHV Version



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