

ANPx341

open loop, bearing based, linear, horizontal stepper positioner

Technical Specifications

Technology		travel mechanism		inertial piezo drive	
Size and Dimensions		footprint; height		40 x 45; 11.5 mm	
		maximum size		40 x 53.3; 11.5 mm	
		weight		76 g	
Coarse Positioning Mode		@ 300 K		@ 4 K	
		input voltage range		0 .. 60 V	
		typical actuator capacitance		1.55 µF	
		travel range (step mode)		20 mm	
		typical minimum step size		100 nm	
		maximum drive velocity		≈ 3 mm/s	
Fine Positioning Mode		@ 300 K		@ 4 K	
		input voltage range		0 .. 100 V	
		fine positioning range		0 .. 7.5 µm	
		fine positioning resolution		sub-nm	
Materials		positioner body		titanium	
		actuator		PZT ceramics	
		connecting wires		insulated twisted pair, copper	
		bearings		ceramics	
Load (@ ambient conditions)		maximum load		20 N (2 kg)	
		maximum dynamic force along the axis		2 N	
		mounting orientation: axis horizontal			
Mounting		from the top		4 through holes dia 2.2 mm, cntrbr. f. M2	
		from the bottom		4 threads M2.5 x 2 mm	
		load on top		10 threads M 2 x 3 mm	
Article Numbers		/RT Version		1006750	
		/HV Version		1006751	
		/UHV Version		1006752	
		/LT Version		1007261	
		/LT/HV Version		1007262	
		/LT/UHV Version		1007263	
Compatibility with Electronics		ANC300 piezo positioning controller		ANM150, ANM300	
Working Conditions		mounting orientation		axis horizontal	
		magnetic field range		0 .. 31 T	
		temperature range (/RT, /HV, /UHV)		0 .. 100 °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 % over full range	
		forward / backward step asymmetry		typically 5 %	
Connectors and Feedthroughs		/RT, /LT Versions		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,	
				30 cm cable with connector 30 cm cable with connector	
		electrical feedthrough solution		VFT/LT VFT/HV, VFT/UHV	
High Load Option (/HL)		/HL/RT - ambient conditions		3 N	
		/HL/UHV - UHV conditions		2 N	
		/HL/LT - cryogenic temperature conditions		1.5 N	
Article Numbers /HL Option		/HL/RT Version		1008361	
		/HL/HV Version		1008349	
		/HL/UHV Version		1008362	
		/HL/LT Version		1008351	
		/HL/LT/HV Version		1008352	
		/HL/LT/UHV Version		1008353	

Technical Drawings

