

ANSz50

compact open loop z-scanner for 1" scanning probe applications

Technical Specifications

Technology		Compatibility with Electronics	
travel mechanism	piezo driven lever arm mechanism	ANC300 piezo positioning controller	ANM200, ANM300
Size and Dimensions		ANC350 piezo positioning controller	ANC350 scan and readout controller
footprint; height	15 x 15; 6 mm	Analog voltage amplifier	ANC250
weight	4.5 g	Accuracy of Movement	
Fine Positioning Mode		repeatability of step sizes	no coarse positioning capability
	@ 300 K	scan repeatability	typically 0.1 %
fine positioning range	4.3 μ m	forward / backward step asymmetry	no coarse positioning capability
input voltage range	0 .. 60 V	creep	typically 0.5 - 0.8 % per decade of time
typical actuator capacitance	2.5 μ F	linearity	typically 5 - 10 %
fine positioning resolution	sub-nm	Working Conditions	
Materials (non-magnetic)		mounting orientation	scanner moving vertically
positioner body	titanium (upgrade option: beryllium copper)	magnetic field range	0 .. 31 T
actuator	PZT ceramics	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
connecting wires	insulated twisted pair, copper	temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
Load (@ ambient conditions)		max. bake out temperature (/UHV, /LT/UHV)	150 °C
	mounting orientation: axis vertical	minimum pressure (/RT, /LT)	1E-4 mbar
maximum torque on the axis	10 Ncm	minimum pressure (/HV, /LT/HV)	1E-8 mbar
maximum load	0.5 N (50 g)	minimum pressure (/UHV, /LT/UHV)	5E-11 mbar
Mounting		Connectors and Feedthroughs	
from the top	2 through holes dia 1.7 mm, cntrbr. f. M1.6	/RT, /LT Versions	all /HV, /UHV Versions
from the bottom	2 threads M2 x 2.3 mm	connector type	2-pole pin plug (PEEK),
load on top	4 threads M1.6 x 2 mm		\varnothing 0.5 mm, d = 2 mm,
Article Numbers			30 cm cable with connector
/RT Version	1002601	electrical feedthrough solution	VFT/HV, VFT/UHV
/HV Version	1002602		
/UHV Version	1002603		
/LT Version	1002604		
/LT/HV Version	1001588		
/LT/UHV Version	1002605		

Technical Drawings

