

ANSxy100lr

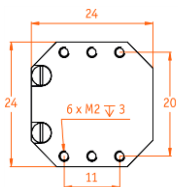
open loop xy-scanner for 2" scanning probe applications with large scan range

Technical Specifications

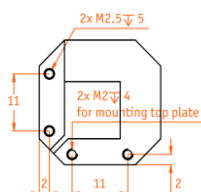
Technology		
travel mechanism	piezo driven lever arm mechanism	
Size and Dimensions		
footprint; height	24 x 24; 10 mm	
weight	18 g	
Fine Positioning Mode		
	@ 300 K	@ 4 K
fine positioning range	50 x 50 μm^2	30 x 30 μm^2
input voltage range	0 .. 60 V	0 .. 150 V
typical actuator capacitance	5.4 μF	750 nF
fine positioning resolution	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 orientation: axis horizontal	
maximum torque on the axis	20 Ncm	
maximum load	1 N (100 g)	
Mounting		
from the top	2 through holes dia 2.2 mm, cntrbr. f. M2	
from the bottom	2 threads M2.5 x 5 mm	
load on top	6 threads M2 x 3 mm	
Article Numbers		
/RT Version	1000557	
/HV Version	1000731	
/UHV Version	1000674	
/LT Version	1000352	
/LT/HV Version	1001092	
/LT/UHV Version	1000678	
Compatibility with Electronics		
ANC300 piezo positioning controller	ANM200, ANM300	
ANC350 piezo positioning controller	ANC350 scan and readout controller	
Analog voltage amplifier	ANC250	
Accuracy of Movement		
repeatability of step sizes	no coarse positioning capability	
scan repeatability	typically 0.1 %	
forward / backward step asymmetry	no coarse positioning capability	
creep	typically 0.5 - 0.8 % per decade of time	
linearity	typically 5 - 10 %	
Working Conditions		
mounting orientation	scanner moving horizontally	
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	
Connectors and Feedthroughs		
	/RT, /LT Versions	all /HV, /UHV Versions
connector type	two 2-pole pin plugs, \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector	two 2-pole pin plugs (PEEK), \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector
electrical feedthrough solution	VFT/LT	VFT/HV, VFT/UHV

Technical Drawings

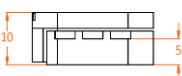
top view



bottom view



side view



3D view

