

# ANSx150

open loop x-scanner with large cryogenic scan range

## Technical Specifications

<b>Technology</b>		<b>Compatibility with Electronics</b>	
travel mechanism	piezo driven lever arm mechanism	Analog voltage amplifier	ANC250
<b>Size and Dimensions</b>		<b>Accuracy of Movement</b>	
footprint; height	24 x 24; 9 mm	repeatability of step sizes	no coarse positioning capability
weight	18 g	scan repeatability	typically 0.1 %
<b>Fine Positioning Mode</b>		forward / backward step asymmetry	no coarse positioning capability
	<b>@ 300 K</b>	<b>@ 4 K</b>	creep
fine positioning range	80 µm	125 µm	typically 0.5 - 0.8 % per decade of time
input voltage range	0 .. 60 V	+/- 120V	linearity
typical actuator capacitance	11.1 µF	2.6 µF	typically 5 - 10 %
fine positioning resolution	sub-nm		
<b>Materials (non-magnetic)</b>		<b>Working Conditions</b>	
positioner body	titanium (upgrade option: beryllium copper)	mounting orientation	scanner moving horizontally
actuator	PZT ceramics	magnetic field range	0 .. 31 T
connecting wires	insulated twisted pair, copper	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
<b>Load (@ ambient conditions)</b>		<b>Connectors and Feedthroughs</b>	
	<b>mounting orientation: axis horizontal</b>	<b>/RT, /LT Versions</b>	<b>all /HV, /UHV Versions</b>
maximum torque on the axis	10 Ncm	connector type	2-pole pin plug, 2-pole pin plug (PEEK),
maximum load	1 N (100g)		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
<b>Mounting</b>			
from the top	2 through holes M2 x 5 mm		
from the bottom	2 threads M2.5 x 5 mm		
load on top	6 threads M2 x 2 mm		
<b>Article Numbers</b>			
/RT Version	1006868		
/HV Version	1006869		
/UHV Version	1006870		
/LT Version	1006871		
/LT/HV Version	1006872		
/LT/UHV Version	1006873		

## Technical Drawings

