

ANSxy50

compact, stand-alone xy-scanner with large scan range for 1" scanning probe applications

Technical Specifications

Technology

travel mechanism piezo driven lever arm mechanism

Size and Dimensions

footprint; height 15 x 15; 7 mm
weight 7 g

Fine Positioning Mode

	@ 300 K	@ 4 K
fine positioning range	30 x 30 μm^2	12 x 12 μm^2
input voltage range	0 .. 60 V	0 .. 150 V
typical actuator capacitance	1.4 μF	0.2 μF
maximum bandwidth	100 Hz	
fine positioning resolution	sub-nm	

Materials (non-magnetic)

positioner body titanium (other materials on request)
actuator PZT ceramics
connecting wires insulated twisted pair, copper

Load

mounting orientation: axis vertical (@ 300 K)
maximum torque on the axis 10 Ncm
maximum load 0.5 N (50 g)

Mounting

from the top 2 through holes dia 1.7 mm, cntrbr. f. M1.6
from the bottom 2 threads M2 x 2.5 mm
load on top 4 threads M1.6 x 2 mm

Article Numbers

/RT Version	1001091
/HV Version	1001090
/UHV Version	1000543
/LT Version	1001026
/LT/HV Version	1001093
/LT/UHV Version	1001089

Compatibility with Electronics

ANC300 piezo positioning controller	all versions
ANC350 piezo positioning controller	all versions

Working Conditions

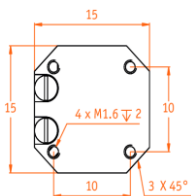
mounting orientation	scanner moving horizontally
magnetic field range	0 .. 31 T
temperature range (/RT, /HV, /UHV)	0 .. 100 °C
temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
max. bake out temperature (/UHV, /LT/UHV)	150 °C
minimum pressure (/RT, /LT)	1E-4 mbar
minimum pressure (/HV, /LT/HV)	1E-8 mbar
minimum pressure (/UHV, /LT/UHV)	5E-11 mbar

Connectors and Feedthroughs

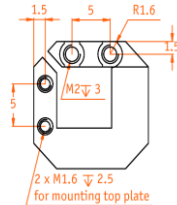
	/RT, /LT Versions	all /HV, /UHV Versions
connector type	two 2-pole pin plugs, \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector	two 2-pole pin plugs (PEEK), \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector
electrical feedthrough solution	VFT/LT	VFT/HV, VFT/UHV

Technical Drawings

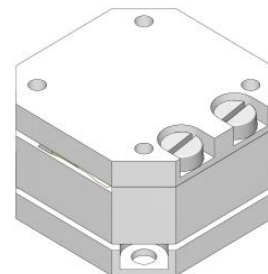
top view



bottom view



3D view



side view

