ANGp50

compact, open loop goniometer for Φ-positioning

Technical Specifications

Technology	
travel mechanism	inertial piezo drive

Size and Dimensions	
footprint; height	15 x15; 10 mm
maximum size	15 x 19.5; 10.5 mm
distance center of rotation to bottom	50 mm (above center)
weight	7 g

Coarse Positioning Mode	@ 300 K	@ 4 K
input voltage range	0 .. 60 V	0 .. 60 V
typical actuator capacitance	525 nF	75 nF
travel range (step mode)	5.8°	5.8°
typical minimum step size	0.1 m°	20 µ°
maximum drive velocity	≈ 1 °/s	

Fine Positioning Mode	
fine positiong range	no fine positioning capability

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

Load	mounting orientation: axis horizontal (@ 300 K)
maximum load	0.25 N (25 g)
maximum static force along the axis	1.5 N
maximum dynamic force along the axis	1 N

Mounting	
from the top	2 through holes dia 1.7 mm, cntrbr. f. M1.6
from the bottom	2 threads M2 x 3 mm
load on top	3 threads M1.6 x 2.5 mm

Article Numbers	
/RT Version	1002593
/HV Version	1002591
/UHV Version	1002592
/LT Version	1002403
/LT/HV Version	1002594
/LT/UHV Version	1002595

Compatibility with Electronics	
ANC300 piezo positioning controller	all versions
ANC350 piezo positioning controller	all versions

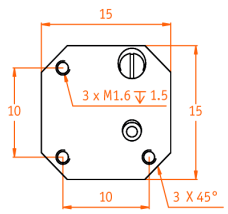
Working Conditions	
mounting orientation	axis horizontal
magnetic field range	0 .. 31 T
temperature range (/RT, /HV, /UHV)	0 ..100 °C
temperature range (/LT, /LT/HV, /LT/UHV)	10 mK .. 373 K
max. bake out temperature (/UHV, /LT/UHV)	150 °C
minimum pressure (/RT, /LT)	1E-4 mbar
minimum pressure (/HV, /LT/HV)	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 %

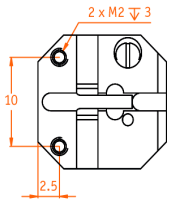
Connectors and Feedthroughs	/RT, /LT Versions	all /HV, /UHV Versions
connector type	2-pole pin plug, ø 0.5 mm, d = 2 mm, 30 cm cable with connector	2-pole pin plug (PEEK), ø 0.5 mm, d = 2 mm, 30 cm cable with connector
electrical feedthrough solution	VFT/LT	VFT/HV, VFT/UHV

Technical Drawings

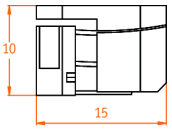
top view



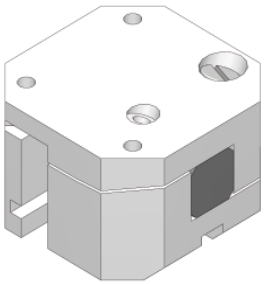
bottom view



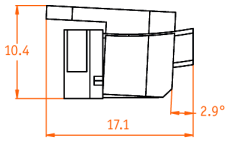
side view



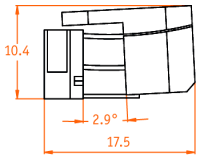
3D view



inner position



outer position



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