

ANGp101/RES

goniometer with resistive encoder for closed loop operation providing Φ -positioning

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Technology	
travel mechanism	inertial piezo drive
Size and Dimensions	
footprint; height	24 x 24; 11 mm
maximum size	28.9 x 26.5; 11.6 mm
distance center of rotation to bottom	62 mm (above center)
Coarse Positioning Mode	
travel (step mode)	5.4°
typical minimum step size	0.1 m° @ 300 K, 0.02 m° @ 4 K
maximum speed (@ 300 K, no load)	approx. 1°/s
Fine Positioning Mode	
scan range	no fine positioning capability
Materials (non-magnetic)	
positioner body	Titanium (other materials on request)
actuator	PZT ceramics
connecting wires	insulated twisted pair, Cu
weight	18 g
Load	
maximum vertical load	100 g
maximum static forces along the axis	3 N
maximum dynamic force along the axis	2 N
Mounting	
frontside mounting	two through holes for M2
backside mounting	two threads M2.5 x 6 mm
load mounting	six threads M2 x 3 mm
Article Numbers	
/RT Version	1002793 /LT Version 1002799
/HV Version	1002795 /LT/HV Version 1002801
/UHV Version	1002797 /LT/UHV Version 1002803
Compatibility with Electronics	
ANC350 piezo controller	all versions

Working Conditions		
mounting orientation	axis perpendicular to gravity	
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	2-pole pin plug, \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector	2-pole pin plug (PEEK), \varnothing 0.5 mm, d = 2 mm, 30 cm cable with connector
electrical feedthrough solution	COC230/LT	COC230/HV, COC230/UHV
encoder connector	additional 3-pole plug	additional 3-pole plug (Peek)
Temperature Dependent Data		
	@ 300K	@ 4K (only /LT versions)
input voltage range	0 .. +100 V	0 .. +100 V
typical actuator capacitance	1050 nF	150 nF
typical step size (min .. max)	0.1 .. 3 m°	0.02 .. 0.5 m°
fine positioning range	---	---
Accuracy of Movement		
repeatability of step sizes	typically 5% over full range	
forward / backward step asymmetry	typically 5%	
Position Encoder		
readout mechanism	resistive encoder, potentiometric measurement	
encoded travel range	5.4°	
sensor resolution	approx. 0.1 m°	
repeatability	approx. 1-2 m°	

