

ANR51/RES

Technical Specifications

travel mechanism inertial piezo drive positioner type rotator Size and Dimensions footprint; height 15x15; 9.5mm aperture 1.5 mm weight g Materials positioner body titanium (upgrade option: copper beryllium) actuator PZT ceramics connecting wires insulated twisted pair, copper Options environmental options /RT Load (@ ambient conditions) maximum load 0.3 N maximum dynamic torque around axis 0.2 Ncm maximum torque perpendicular to axis 5 Ncm Coarse Positioning Mode input voltage range 0 - 60 V travel range (step mode) 360 ° maximum drive velocity @ 300 K typical minimum step size @ 300 K 1 m°	Technology	
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aperture 1.5 mm weight g Materials positioner body titanium (upgrade option: copper beryllium) actuator PZT ceramics connecting wires insulated twisted pair, copper Options environmental options /RT Load (@ ambient conditions) maximum load 0.3 N maximum dynamic torque around axis 0.2 Ncm maximum torque perpendicular to axis 5 Ncm Coarse Positioning Mode input voltage range 0 - 60 V travel range (step mode) 360 ° maximum drive velocity @ 300 K approx. 10 °/s	Size and Dimensions	
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Load (@ ambient conditions) maximum load 0.3 N maximum dynamic torque around axis 0.2 Ncm maximum torque perpendicular to axis 5 Ncm Coarse Positioning Mode input voltage range travel range (step mode) maximum drive velocity @ 300 K approx. 10 °/s	Options	
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maximum torque perpendicular to axis 5 Ncm Coarse Positioning Mode input voltage range 0 - 60 V travel range (step mode) 360 ° maximum drive velocity @ 300 K approx. 10 °/s	maximum load	0.3 N
Coarse Positioning Mode input voltage range 0 - 60 V travel range (step mode) 360 ° maximum drive velocity @ 300 K approx. 10 °/s	maximum dynamic torque around axis	0.2 Ncm
input voltage range 0 - 60 V travel range (step mode) 360 ° maximum drive velocity @ 300 K approx. 10 °/s	maximum torque perpendicular to axis	5 Ncm
travel range (step mode) 360 ° maximum drive velocity @ 300 K approx. 10 °/s	Coarse Positioning Mode	
maximum drive velocity @ 300 K approx. 10 °/s	input voltage range	0 - 60 V
	travel range (step mode)	360 °
typical minimum step size @ 300 K 1 m°	maximum drive velocity @ 300 K	approx. 10 °/s
	typical minimum step size @ 300 K	1 m°
typical minimum step size @ 4 K 0.5 m°	typical minimum step size @ 4 K	0.5 m°

Fine Positioning Mode	
fine positioning resolution	μ°
fine angular positioning range @ 300 K	30 m°
fine angular positioning range @ 4 K	4 m°
input DC voltage range @ 300 K	0 - 60 V
input DC voltage range @ 4 K	0 - 150 V
Accuracy of Movement	
repeatability of step sizes	typically 5 % over full range
typ. forward / backward step asymmetry	typically 5 %
wobble	± 1 mrad
Position Encoder	
readout mechanism	resistive sensor
encoded travel range	315°
sensor power (when measuring)	0.01 - 1 mW
sensor resolution	approx. 6 m°
repeatability	50 m° (unidirectional)
linearity (over full travel)	<1%
Working Conditions	
mounting orientation	axis vertical
magnetic field range	0 - 31 T
minimum pressure (/RT)	ambient
temperature range (/RT)	273K 373K
Connectors and Feedthroughs	
cable	30 cm cable with connector
connector type	2-pole pin plug, ø 0.5 mm, d = 2 mm
electrical feedthrough solution	VFT/LT
encoder connector	additional 3-pole plug
Versions	
/RT version	1003291

Technical Drawings







