

# ECR3030

nanoprecise open loop stepper rotator for endless rotation in both directions

## Technical Specifications

<b>Technology</b>		<b>Compatibility with Electronics</b>	
travel mechanism	inertial piezo drive	ECC100 piezo positioning controller	all versions
<b>Size and Dimensions</b>		<b>Working Conditions</b>	
footprint; height	30 x 30; 13.5 mm	mounting orientation	arbitrary
maximum size	30 x 30; 13.5 mm	temperature range (/RT, /HV, /UHV)	0 .. 100 °C
weight (aluminum/stainless steel)	28/66 g	max. bake out temperature (/UHV)	150 °C
<b>Coarse Positioning Mode</b>		minimum pressure (/RT)	1E-4 mbar
input voltage range	0 .. 60 V	minimum pressure (/HV)	1E-8 mbar
typical actuator capacitance	1.15 µF	minimum pressure (/UHV)	5E-11 mbar
travel range (step mode)	360 ° endless	<b>Accuracy of Movement</b>	
typical minimum step size	0.4 m°	repeatability of step sizes	typically 5 % over full range
maximum drive velocity (@ 45 V)	10 °/s	forward / backward step asymmetry	10%
<b>Fine Positioning Mode</b>		wobble	6 mrad
input voltage range	0 .. 100 V	<b>Position Encoder</b>	
fine positioning range	0 .. 12 m°	encoder options	-
fine positioning resolution	µ°	<b>Connectors and Feedthroughs</b>	
<b>Materials</b>		<b>/RT Versions</b>	<b>all /HV, /UHV Versions</b>
positioner body (/RT)	aluminum	connector type	14-pole connector
positioner body (/HV, /UHV)	stainless steel		50 cm cable with connector
actuator	PZT ceramics	electrical feedthrough solution	---
connecting wires	insulated twisted pair, copper		15-pin D-Sub connector
bearings	stainless steel		50 cm cable with connector
<b>Load (@ ambient conditions)</b>			VFT/HV, VFT/UHV
	<b>mounting orientation: axis vertical</b>		
maximum load	20 N (2 kg)		
maximum dynamic torque around axis	2 Ncm		
<b>Mounting</b>			
from the top	4 through holes dia 2.2 mm, cntrbr. f. M2		
from the bottom	4 threads for M2.5 x 2 mm		
load on top	8 threads M2 x 2.3 mm		
load at the front	L-bracket		
<b>Article Numbers</b>			
/RT Version Aluminum	1006205		
/HV Version Stainless Steel	1006210		
/UHV Version Stainless Steel	1006212		

## Technical Drawings

