

ECSz5050/NUM(+)

Technical Specifications

Technology	
travel mechanism	inertial piezo drive
positioner type	linear
Size and Dimensions	
footprint; height	50x50; 32mm
max installation space	50x50; 40.5mm
weight (aluminium version)	161 g
Materials	
positioner body	aluminum
actuator	PZT ceramics
connecting wires	copper, jacket: RT: Teflon/PTFE
bearings	stainless steel
Options	
environmental options	/RT, /HV, /UHV
Compatibility with Electronics	
ECC100 piezo positioning controller	all versions
Load (@ ambient conditions)	
maximum load	8 N
maximum dynamic force along the axis	8 N
Coarse Positioning Mode	
travel range (step mode)	8 mm
maximum drive velocity @ 300 K	2 mm/s
Fine Positioning Mode	
fine positioning resolution	sub-nm
fine positioning range @ 300 K	0.8 μ m
input DC voltage range @ 300 K	0 - 60 V
Accuracy of Movement	
repeatability of step sizes	typically 5 % over full range
typ. forward / backward step asymmetry	10 %

Position Encoder	
readout mechanism	optoelectronic sensor
encoded travel range	entire travel
sensor power (when measuring)	300 mW
wavelength of illumination	870 nm
sensor resolution	1 nm
repeatability	100 nm
absolute accuracy	< 0.01% of travel range
Working Conditions	
mounting orientation	arbitrary
minimum pressure (/RT)	ambient
minimum pressure (/HV)	1E-8 mbar
minimum pressure (/UHV)	5E-11 mbar
temperature range (/RT)	273K .. 328K
Connectors and Feedthroughs	
cable	50 cm cable with connector
connector type	14-pole connector
Versions	
/RT version	1012096
/HV version	1012832
/UHV version	1012830

Technical Drawings

