ECSx5050/NUM

Technical Specifications

Technology	
travel mechanism	inertial piezo drive
positioner type	linear
Size and Dimensions	
footprint; height	50x50; 9.5mm
max installation space	50x81.6; 9.5mm
weight (aluminium version)	70 g
weight (stainless steel version)	149 g
Materials	
positioner body	Aluminum
positioner body (/HV, /UHV)	stainless steel
actuator	PZT ceramics
connecting wires	copper, jacket: RT: silicon, HV/UHV: fiberglass
bearings	stainless steel
Options	
environmental options	/RT
Load (@ ambient conditions)	
maximum load	150 N
maximum dynamic force along the axis	1 N
Coarse Positioning Mode	
travel range (step mode)	30 mm
maximum drive velocity @ 300 K	4.5 mm/s
typical minimum step size @ 300 K	50 nm

Fine Positioning Mode	
fine positioning resolution	sub-nm
fine linear positioning range @ 300 K	1.6 µm
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	
sensor power (when measuring)	300 mW
wavelength of illumination	870 nm
sensor resolution	1 nm
repeatability	50 nm (bidirectional)
absolute accuracy	< 0.01% of travel range
Working Conditions	
mounting orientation	arbitrary
minimum pressure (/RT)	ambient
temperature range (/RT)	273K .. 328K
Connectors and Feedthroughs	
cable	50 cm cable with connector
connector type	14-pole connector
connector type (/HV, /UHV)	15-pin D-Sub connector
High Load Option (/HL)	
/HL/RT - maximum dynamic force	5 N
/HL/(U)HV - maximum dynamic force	3 N
Versions	
/RT version	1006125

Technical Drawings

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