

ECSx5050

Technical Specifications

Technology	
travel mechanism	inertial piezo drive
positioner type	linear
Size and Dimensions	
footprint; height	50 x 50 ; 9.5 mm
max installation space	71.6 x 50 ; 9.5 mm
weight (aluminium version)	70 g
weight (stainless steel version)	149 g
Materials	
positioner body	Aluminum
actuator	PZT ceramics
connecting wires	copper, jacket: RT: silicon, HV/UHV: fiberglass
bearings	stainless steel
Load (@ ambient conditions)	
maximum load	150 N
maximum dynamic force along the axis	5 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

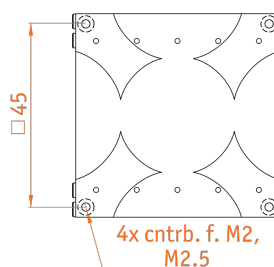
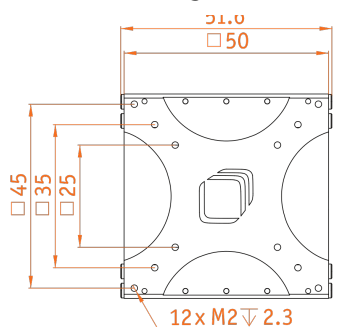
Fine Positioning Mode	
fine positioning resolution	sub-nm
fine linear positioning range @ 300 K	1.6 µm
input DC voltage range @ 300 K	0 - 60 V
Accuracy of Movement	
repeatability of step sizes	typically 5 % over full range
typ. forward / backward step asymmetry	0.1
Working Conditions	
mounting orientation	arbitrary
Connectors and Feedthroughs	
cable	50 cm cable with connector
connector type	14-pole connector
High Load Option (/HL)	
/HL/RT - maximum dynamic force	5 N
Options	
material options	/StSt, /Al
high load option	/HL
environmental options	/RT, /HV, /UHV
Versions	
/StSt/UHV Version	1006130
/StSt/HV Version	1006128
/StSt/HL/UHV Version	1013899
/StSt/HL/HV Version	1013896
/Al/RT Version	1006124
/Al/HL/RT Version	1008840

AMC100

Piezo Positioning
Controller



Technical Drawings



ECSx5050/NUM(+)

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AMC100

Piezo Positioning
Controller



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	
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typ. forward / backward step asymmetry	0.1
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	50 nm (bidirectional)
absolute accuracy	< 0.01% of travel range
Working Conditions	
mounting orientation	arbitrary
Connectors and Feedthroughs	
cable	50 cm cable with connector
connector type	14-pole connector
High Load Option (/HL)	
/HL/RT - maximum dynamic force	5 N
Options	
material options	/StSt, /Al
encoder options	/NUM, /NUM+
high load option	/HL
environmental options	/RT, /HV, /UHV
Versions	
/StSt+/UHV Version	1011447
/StSt+/HV Version	1011446
/StSt+/HL/UHV Version	1013901
/StSt+/HL/HV Version	1013898
/StSt/UHV Version	1006131
/StSt/HV Version	1006129
/StSt/HL/UHV Version	1010495
/StSt/HL/HV Version	1013897
/Al/RT Version	1006125
/Al/HL/RT Version	1008849

Technical Drawings

