ECS3080



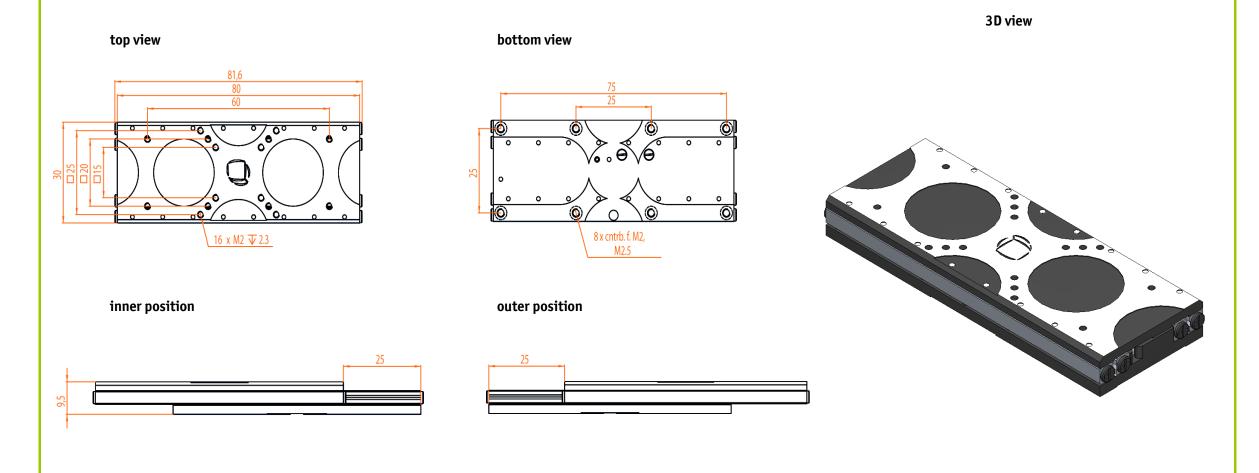
nanoprecise open loop stepper positioner for linear, horizontal motion

Technical Specifications

travel mechanism	inertial piezo drive	
Size and Dimensions		
footprint; height	30 x 80; 9.5 mm	
maximum size	30 x 131.6; 9.5 mm	
weight (aluminum/stainless steel)	78/147 g	
Coarse Positioning Mode		
input voltage range	060V	
typical actuator capacitance	1.15 μF @ 300K	
travel range (step mode)	50 mm	
typical minimum step size	0.05 μm	
maximum drive velocity (@ 45 V)	4.5 mm/s	
Fine Positioning Mode		
input voltage range	060V	
fine positiong range	01.6 μm	
fine positioning resolution	sub-nm	
Materials		
positioner body (/RT)	aluminum	
positioner body (/HV, /UHV)	stainless steel	
actuator	PZT ceramics	
connecting wires	insulated twisted pair, copper	
bearings	stainless steel	
Load (@ ambient conditions)	mounting orientation: axis horizontal	
maximum load	240 N (24 kg)	
maximum dynamic force along the axis	1 N	
/HL high load option (maximum dynamic force)	5 N	
Mounting		
from the top	8 through holes dia 2.2 mm, cntrbr. f. M2	
from the bottom	8 threads M2.5 x 2.5 mm	
load on top	16 threads M2 x 2.3 mm	
	L-bracket	
load at the front		
load at the front Article Numbers		
	1005657	
Article Numbers	1005657 1005670	
Article Numbers /RT version aluminum		
Article Numbers /RT version aluminum /RT version stainless steel	1005670	

ECC100 piezo positioning controll	ler	all versions	
Working Conditions			
mounting orientation		arbitrary	
temperature range (/RT, /HV, /UHV)		0100 °C	
max. bake out temperature (/UHV)		150 °C	
minimum pressure (/RT)		1E-4 mbar	
minimum pressure (/HV)		1E-8 mbar	
minimum pressure (/UHV)		5E-11 mbar	
Accuracy of Movement			
repeatability of step sizes		typically 5 % over full range	
forward / backward step asymmetry		10%	
yaw angle (over 10 mm travel)		< 0.1 mrad	
pitch angle (over 10 mm travel)		< 0.1 mrad	
roll angle (over 10 mm travel)		< 0.1 mrad	
Position Encoder			
encoder options		-	
Connectors and Feedthroughs	/RT Versions		all /HV, /UHV Versions
connector type	14-pole connector		15-pin D-Sub connector
	50 cm cable with connector		50 cm cable with connecto
electrical feedthrough solution			VFT/HV, VFT/UHV





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