

## ECGt5050/NUM

goniometer with optoelectronic encoder for closed loop operation providing  $\Theta$ -positioning

Technology	
travel mechanism	inertial piezo drive

Size and Dimensions	
footprint; height	55.4 x 50; 17 mm
maximum size	61.1 x 50; 19.4 mm
distance center of rotation to bottom	77 mm

Coarse Positioning Mode	
travel range (step mode)	10 °
typical minimum step size	0.1 m° @ 300 K
maximum speed (@ 300 K, no load)	approx. 1 °/s

Fine Positioning Mode	
scan range	no fine positioning capability

Materials (non-magnetic)	
positioner body	Aluminum / Stainless steel
actuator	PZT ceramics
connecting wires	insulated twisted pair, Cu
weight (Aluminum/Stainless steel)	142 g / 256 g

Load	
maximum vertical load for horizontal operation	10 N

Mounting	
frontside mounting	4 through holes M2 x 2.5 mm
backside mounting	4 threads M2,5 x 2.5 mm
load mounting	12 threads M2 x 2.3 mm
vertical mounting	L-bracket

Article Numbers	
/RT Version Aluminum	1006215
/RT Version Stainless Steel	1006217
/HV Version Stainless Steel	1006219
/UHV Version Stainless Steel	1006221

Compatibility with Electronics	
ECC100 piezo step controller	all versions
ANC35 piezo motor controller	all versions
ANC300 piezo step controller	all versions
ANC350 piezo positioning controller	all versions

Working Conditions	
mounting orientation	arbitrary
magnetic field range	---
temperature range (/RT, /HV, /UHV)	0 .. 100 °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

Connectors and Feedthroughs	/RT	all /HV, /UHV Versions
connector type	14-pole connector	15-pin Sub-D
electrical feedthrough solution	50 cm cable with connector	50 cm cable with connector VFT/HV, VFT/UHV

Position Encoder	
readout mechanism	optoelectronic encoder (non-contact)
sensor resolution	10 μ°
sensor repeatability	400 μ°
sensor accuracy	approx. 1 m°

