

## ANT200/NUM

Linear translation stage with optoelectronic encoder for ultra precise position readout

Technology	
travel mechanism	inertial piezo drive

Size and Dimensions	
footprint; height	45 x 45; 11 mm
maximum size	52 x 45; 11 mm
center hole	Ø 28 mm (free aperture Ø18mm)

Travel and Accuracy of Positioning	
travel	7 mm
encoder type	optoelectronic encoder (non-contact)
sensor resolution	10 nm
repeatability	400 nm
linearity (over full travel)	0.01%
absolute accuracy	approx. 1 µm
maximum speed (@ 300 K, no load)	approx. 3 mm/s

Working Conditions	
mounting orientation	axis horizontal
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

Load	
maximum vertical load	300 g
maximum static forces along the axis	4 N
maximum dynamic force along the axis	2 N
maximum torque on the axis	20 Ncm

Electrical Specifications	
input voltage range	0 .. +100 V
typical actuator capacitance	1050 nF

Connectors and Feedthroughs	/RT Version	/HV, /UHV Version
connector type	14-pole connector	15-pin Sub-D
electrical feedthrough solution	---	COC230/HV, COC230/UHV

Materials	
positioner body	Aluminum, Stainless Steel (for vacuum: Titanium, Stainless Steel)
actuator	PZT ceramics
connecting wires	insulated Cu wires
weight	40 g

Mounting	
frontside mounting	two counterbores for M2
backside mounting	---
load mounting	two threads M2 x 3 mm

Compatibility with Electronics	
ANC350 piezo controller	all versions

Article Numbers	
/RT Version	1001853
/HV Version	1002569
/UHV Version	1002680

### Drawings

