

WaveVortex 10

Specification

Compatible Electrode Tips	
Rotating Disk Electrodes (RDE)	<ul style="list-style-type: none"> • E5TQ ChangeDisk, PEEK • E5TQ ChangeDisk, PTFE • E5 Fixed-Disk, PEEK • E5 Fixed-Disk, PTFE
Rotating Ring-Disk Electrodes (RRDE)	<ul style="list-style-type: none"> • E6R1 ChangeDisk, PEEK • E6R1 ChangeDisk, PTFE • E6R2 Fixed-Disk, PEEK • E7R8 ThinGap, PTFE • E7R9 ThinGap, PTFE
Rotation Rate	
Rate Accuracy	- 100 to 200 RPM: accurate to within ± 2 counts of display reading - 200 to 8000 RPM: accurate to within $\pm 1\%$ of display reading
Rate Display	4 digit display indicates rotation rate (RPM)
Rate Control (front panel)	10-turn rotation rate control knob
Rotation Start/Stop (front panel)	push button toggle with LED indicators for "Pause" and "Run"
Rate Control (external)	allows optional rate control via a signal input (located on external I/O connector) available control ratios: 1 RPM/mV (default), 2 RPM/mV, 4 RPM/mV (jumper selectable)
Rotation Start/Stop (external)	optional digital (TTL) motor stop input signal (located on external I/O connector) front panel LED indicates when external motor stop is active
Enclosure Interlock	interlock prevents rotation when enclosure window is in raised position front panel LED indicates when enclosure window is in raised position
Rate Output	allows optional external rotation rate monitoring via a signal output (located on external I/O connector) output signal ratio: 2 RPM/mV
Motor	
Motor Power	11 W
Control Method	closed loop servo-system (PWM) temperature-compensated tachometer mounted on motor shaft
Motor Type	permanent magnet
Maximum Continuous Torque	18.7 milliNewton-meters
Motor Protection	motor current is electronically limited
Electrical	
Power Requirements	- AC Mains: 100 - 240 VAC, $\pm 10\%$; 50/60 Hz; 1 A - DC Supply: 24 VDC; 1.5 A

Electrode Connections	<p>electrode connections are located on the motor unit</p> <ul style="list-style-type: none"> - disk electrode: red banana jack - ring electrode: blue banana jack
Chassis Terminal	<p>metal banana jack located on the motor unit (a second connection is also provided on external I/O connector)</p>
DC Common	<p>DC Common (analog ground) connection provided on external I/O connector</p>
Physical	
Shipping Information	<ul style="list-style-type: none"> - shipping weight: 24 pounds (11 kg) - shipping dimensions: 16.0 x 16.0 x 16.0 in (41 x 41 x 41 cm)
Instrument Weight	7.3 kg
Instrument Dimensions	<ul style="list-style-type: none"> - width: 15 in (38 cm); depth: 11 in (28 cm) - height with enclosure window in lower position: 15 in (38 cm) - clearance required to raise window to upper position: 24 in (61 cm)
Materials	<ul style="list-style-type: none"> - enclosure base and sides: black high-density polyethylene - enclosure window: clear polycarbonate - electronics cabinet: black powder-coated aluminum
Operating Temperature	10°C to 40°C