

RDE 710 Rotating Electrode

**New
protective
enclosure**



The RDE 710 Rotator is a solid state controlled servo-system that is the preferred electrode rotator for use in the research laboratory. Rotated Disk (RDE), Rotated Ring-Disk (RRDE) and Rotating Cylinder Electrodes (RCE) may be used with the rotator. Electrode connections are made to the electrode by silver carbon brushes - two each for the disk and the ring - to provide consistent, reliable contact.

The rotation rate of the electrode may be read from the LCD display on the front panel, and may be adjusted using a knob located below the display. The rotation rate is adjustable to within 1% of the control setting over a range from 50 to 10,000 RPM. A voltage output signal that is proportional to the rotation rate is available on the front panel. This signal may be used to accurately monitor the rotation rate with a voltmeter or a Gamry Potentiostat analog input.

Alternately, the rotation rate may be controlled by applying an externally generated voltage signal to a jack on the front panel, e.g. by the Gamry Potentiostat analogue output signal. This allows the rotation rate to be modulated by a sine wave, square wave, or other type of waveform. The outstanding acceleration characteristics of the system allow the rotation rate to follow the input signal with very little error. This feature is particularly desirable for use in hydro dynamically modulated applications.

The entire apparatus is easily taken apart and reassembled, and this facilitates locating the rotator in recessed spaces and in glove boxes. The main body of the rotator is easily raised or lowered with respect to a cell shelf, making immersion or removal of the rotating electrode quick and easy. The base is made from a chemically resistant polypropylene.

Highlights

- Suitable for rotated disk (RDE), rotated ring-disk (RRDE) and Rotating Cylinder Electrodes (RCE) Voltammetry
- Speed may be modulated using an externally supplied voltage signal
- Output signal line presents the rotation rate as a proportional voltage
- Rotation rates from 50 to 10,000 RPM
- High performance system with rapid acceleration
- Chemically resistant base
- Silver-carbon brushes provide reliable electrode contacts
- Ideal for hydrodynamically modulated Voltammetry
- Low cost, high quality, research grade instrument

Specifications

All specifications are subject to change without notice.

Power	100 to 240 VAC; +/- 10%, 50/60 Hz; 2 A
Weight	Motor Controller Unit: 2.9 kg Rotator Assembly: 10.4 kg
Operating Temperature	10°C to 40°C
Dimensions	Motor Controller Unit: 30 (W) x 26 (D) x 15 (H) cm Rotator Base: 28 x 38 x 2 cm
Motor	150 W permanent magnet DC
Motor Power Supply	+30 V, -24 V DC
Speed Control	Closed loop servo-system; temperature compensated tach generator is mounted on the motor shaft and provides rotational speed information
Speed Range	50 to 10,000 RPM
Accuracy	Better than 1% of LCD panel reading
Controls	Rear panel On/Off switch 10 turn Pot for rotation rate; 4.5 digit LCD display
Front Panel Connections	Input jack for controlling rotation rate. Output jack provides a voltage proportional to the rotation rate (1 volt per every 1000 RPM). Common jack is DC common; isolated from case. Grounding jack connected to case and power ground lead
Max Slew Rate of Motor	Approximately 300,000 RPM/sec (no load)
Bandwidth	@1000 RPM peak to peak modulation, 2000 RPM base speed: >50 Hz, -1dB
Motor Protection	2 amp thermal type circuit breaker, current limited power supply
Hardware Supplied	1 Motor Controller Unit with cable 1 Rotator Assembly
Documentation Supplied	Instruction Manual Inspection Sheet
Warranty	6 months

Compatible Electrodes

Single-Piece Rotated Disk Electrodes
 Rotated Disk Electrode Tips which fit the 970-07 Shaft
 Quick-Change Rotated Disk Electrode Tips which fit the 970-07 Shaft
 Cylinder Tips which fit the 970-07 Shaft
 Series High Temperature Rotated Disk Electrodes (Shaft & Tip Style)
 Series Rotated Ring-Disk Electrodes (Shaft & Tip Style)
 Series Rotated Ring-Disk Electrodes (Interchangeable Disk)



C3 Prozess- und
Analystechnik GmbH
Peter-Henlein-Str. 20
85540 Haar b. München

Tel: 089/45600670
FAX: 089/45600680

info@c3-analysentechnik.de



www.gamry.com
www.c3-analysentechnik.de