



Discover
Multi
Autolab/M204

The new Multi Autolab/M204

The Multi Autolab/M204 is the newest addition to the Autolab series instruments.

The new Multi Autolab/M204 system is based on a user-configurable multichannel cabinet which can accommodate up to 12 M204 potentiostat/galvanostat boards.

The M204 is a 20 V/400 mA potentiostat/galvanostat, fitted with a built-in analog integrator and with analog and digital input/outputs which can be used to interface to external instrumentation.

Furthermore, the Multi Autolab/M204 instrument can be complemented by adding extra modules to extend the functionality of individual M204 boards. This provides the means to customize each channel for a specific electrochemical measurement.

Optional modules

- FRA32M – Electrochemical impedance spectroscopy
- pX1000 – pH and temperature measurements
- MUX – Multiplexing module for complete cells or individual working electrodes
- BA – Dual mode bipotentiostat
- EQCM – Electrochemical quartz crystal microbalance

SPECIFICATIONS

Multi Autolab/M204

- | | |
|--------------------------|----------------------------------|
| • Electrode connections | 2, 3 and 4 |
| • Potential range | +/- 10 V |
| • Compliance voltage | +/- 20 V |
| • Maximum current | +/- 400 mA |
| • Current ranges | 100 mA to 10 nA,
in 8 decades |
| • Potential accuracy | +/- 0.2 % |
| • Potential resolution | 3 μ V |
| • Current accuracy | +/- 0.2 % |
| • Current resolution | 0.0003 %
(of current range) |
| • Input impedance | > 100 GOhm |
| • Potentiostat bandwidth | 1 MHz |
| • Computer interface | USB |
| • Control software | NOVA |

3 year
instrument warranty

Dedicated to research

www.metrohm-autolab.com

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**Discover
Autolab
RRDE**

The new Autolab RRDE

The Autolab Rotating Ring Disc Electrode (RRDE) is the latest addition to the Metrohm Autolab accessories for electrochemical measurements.

The Autolab RRDE can be used to perform electrochemical measurements under controlled hydrodynamic conditions.

The Autolab RRDE uses 2 identical friction-less mercury contacts for ultra-low noise measurements and can be used with any Autolab potentiostat/galvanostat fitted with the BA, dual-mode bipotentiostat module.

The Autolab RRDE is provided with a motor controller that can be operated manually or by the NOVA software. The rotation rate can be specified between 100 RPM and 10,000 RPM in 1 RPM steps.

The Autolab RRDE electrode tips are fitted with a 5 mm electrode disc and a thin concentric platinum ring. The electrode disc is available in Gold, Platinum or Glassy Carbon. The RRDE electrode tips are dimensioned with an electrode gap of 375 μm and a theoretical collection efficiency of 24.9 %.

SPECIFICATIONS

Autolab RRDE

• Speed control	Manual or by NOVA software
• Motor speed range	100 – 10,000 RPM +/- 1 RPM
• Acceleration/deceleration	4,000 RPM/s
• Maximum disc current	500 mA
• Maximum ring current	50 mA
• Contact	Double sealed Hg pool
• Electrode tips	Pt disc/Pt ring, Au disc/Pt ring, GC disc/Pt ring
• Collection efficiency	24.9 %
• Electrode gap	375 μm

3 year
instrument warranty

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