

Metrohm Autolab Specifications

ADC10M

BA

Booster 10A

Booster 20A

ECD

ECI10M

ECN

EQCM

F120

FRA32M

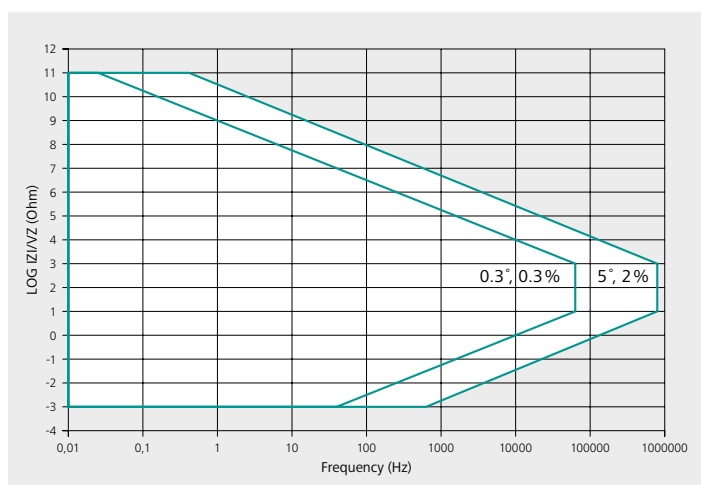
MUX

pX1000

Scan250

Electrochemical impedance spectroscopy module (FRA32M)

Frequency range w/PGSTAT	10 μ Hz to 1 MHz
Frequency range w/PGSTAT and ECI10M	10 μ Hz to 10 MHz
Maximum generated frequency	32 MHz
AC amplitude - Potentiostatic	0.2 mV to 0.35 V (RMS) with 0.025 mV step (RMS)
AC amplitude - Galvanostatic	0.0002 to 0.35 times used current range (with 0.000025 times used current range steps)
AC amplitude - External (\leq 10 MHz)	2 mV to 3.5 V (RMS)
Input range	\pm 10 V
Frequency resolution	0.44 μ Hz
ADC resolution	14-bit
AC resolution	1.3 μ V
DC resolution:	0.3 mV (3 μ V with PGSTAT)
Output impedance of Sine generator	50 Ω
Input channels	E and I from the PGSTAT (internal) X and Y on the front panel (external)
Data presentation	Nyquist, Bode, Admittance, Mott-Schottky, AC vs time, Lissajous
Data analysis	Fit and simulation, Find circle, Kramers-Kronig test



FRA32M

The Autolab Impedance Station provides results up to 99.7% accuracy in typical impedance measurements.

This contour plot is an accurate and precise representation of the performance of a 302N with FRA32M module in potentiostatic mode.

PGSTAT128N	PGSTAT302N	M101*	M204*	PGSTAT101*	PGSTAT204*	Module Type	Potential Application Segment
•	•	•	•	•	•	Electrochemical impedance spectroscopy module (FRA32M)	Batteries, Corrosion, Electrocatalysis, Education, Energy, Fundamental, Plating, Sensors, Solar, Solid State, Supercapacitors

* Current integrator included.

Metrohm Autolab

Metrohm Autolab instruments are specifically designed for electrochemical research, delivering the requirements of most application areas.

Metrohm Autolab provides an industry-leading **3 year warranty** for all instruments, modules, and instrument accessories

✓ Reliability

Metrohm Autolab installed instruments average 99% uptime in the first 5 years of installation.*

✓ Superior Service

Our dedicated distribution and service network provide a fast response for sales and service, usually within 48 hours.

✓ Versatility

Metrohm Autolab instruments can easily and efficiently be combined with a wide range of instrumentation.

✓ Powerful software

NOVA is the powerful data acquisition and analysis software that powers your experiment.

Metrohm Autolab is an
ISO 9001 certified company.

Dedicated to research

www.metrohm.com/electrochemistry



*Based on European markets most widely sold instrumentation.