Potentiostat /Galvanostat

Model **CS300** | Brand **Master Science**



Potentiostat/Galvanostat

The CS300M is a top-tier single-channel potentiostat/galvanostat that offers unparalleled precision and versatility for a wide range of electrochemical applications. Whether you're conducting corrosion studies, battery research, electrochemical analysis, sensor development, or working within the fields of life sciences and environmental chemistry, the CS300M ensures the most accurate measurements to meet your research needs.

KEY HIGHLIGHTS

- Advanced IR Compensation

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Key Benefits

UNMATCHED SENSITIVITY

Advanced IR Compensation

Technical Specifications

COMPREHENSIVE SOFTWARE FOR ENHANCED DATA ANALYSIS

Non-Linear Fitting & Polarization Curve Analysis	The CS300M supports in-depth analysis of polarization curves using the Butler-Volmer equation to calculate critical parameters such as Tafel slope, corrosion current density, polarization resistance, and corrosion rate.

DISPLAY & DATA

CS Studio Software	The CS300M is equipped with CS Studio, a powerful software suite that provides an intuitive interface for analyzing data. With tools for smoothing, differentiation, and integration, it streamlines your workflow for a variety of electrochemical techniques.
Robust Data Management	The CS300M ensures real-time data saving, even during power failures, and supports automated combination tests, allowing for more efficient research workflows.
Lifetime Software Upgrades	Enjoy free software upgrades and ongoing technical support for the lifetime of your instrument.

POWER	
Advanced Battery & EIS Analysis	Evaluate battery performance by analyzing charge/discharge efficiency, capacity, and energy. The Electrochemical Impedance Spectroscopy (EIS) feature also allows for precise analysis using Bode, Nyquist, and Mott-Schottky plots, with built-in fitting functions for custom equivalent circuits.

COMPREHENSIVE SERVICE & SUPPORT	
Easy Installation	Access step-by-step installation guidance, including manuals and software installation videos, ensuring a smooth setup process.

Applications

Electrochemical Analysis & Sensors
Perfect for developing and testing electrochemical sensors, offering accuracy for even the most sensitive applications.

Battery Research
Ideal for materials such as Li-ion batteries, solar cells, fuel cells, and supercapacitors, enabling precise testing and optimization.

Corrosion Studies
The CS300M excels in corrosion research, analyzing materials in various environments such as water, soil, and concrete.

Corrosion Inhibitor Evaluation
Quickly assess the performance of corrosion inhibitors, water stabilizers, coatings, and cathodic protection systems.

Supported Electrochemical Techniques

- Voltammetry Methods:
- Linear Sweep Voltammetry (LSV)
- Cyclic Voltammetry (CV)
- Staircase Voltammetry (SCV)
- Square Wave Voltammetry (SWV)
- Differential Pulse Voltammetry (DPV)
- Normal Pulse Voltammetry (NPV)
- Differential Normal Pulse Voltammetry (DNPV)
- AC Voltammetry (ACV)
- 2nd Harmonic AC Voltammetry (SHACV)
- Fourier Transform AC Voltammetry (FTACV)
- Stripping Voltammetry:
- Potentiostatic Stripping
- Linear Stripping
- Staircase Stripping
- Square Wave Stripping
- Differential Pulse Voltammetry Stripping
- Normal Pulse Voltammetry Stripping
- Differential Normal Pulse Voltammetry Stripping
- Corrosion Measurements:
- Cyclic Polarization Curve (CPP)
- Linear Polarization Curve (LPR)
- Electrochemical Potentiokinetic Reactivation (EPR)
- Electrochemical Noise (EN)
- Zero Resistance Ammeter (ZRA)
- Battery Testing:
- Charge and Discharge
- Galvanostatic Charge and Discharge (GCD)
- Potentiostatic Charging and Discharging
- Potentiostatic Intermittent Titration Technique
- Galvanostatic Intermittent Titration Technique

Standard Accessories Included

- CS300M Instrument Host x1
- CS Studio Software x1
- Power Cable x1
- USB Cable x1
- Cell Cables x2
- Dummy Cell (1kΩ||100μF) x1
- User Manual x1

Achieve accurate and stable electrochemical measurements with the CS300M’s high-performance potentiostat/galvanostat and zero-resistance ammeter (ZRA).

With a ±10V potential control range and ±2A current control range, the CS300M covers a broad spectrum of electrochemical research applications.

Offering 10µV potential resolution and 1pA current resolution, the CS300M delivers ultra-sensitive results for even the most demanding experiments.

Supports current ranges up to ±100A with an external booster, ensuring high performance across a wide range of applications.

The CS300M is the ultimate solution for electrochemical research. Whether you're exploring corrosion mechanisms, testing battery performance, or developing sensors, this instrument offers the precision and versatility your work demands.