

## Features

- ✓ 20 Volt / 1 Amp
- ✓ Fully floating output connection
- ✓ High resolution measurement at PPM levels
- ✓ Display readout
- ✓ Front panel or PC operation
- ✓ Small and compact size – < 3kg
- ✓ Impedance spectroscopy with optional MM520

### Stand alone operation

Manage the unit with or without a PC for stand alone operations using the front panel command cluster

### Higher accuracy

Achieve a clearer understanding of the electrochemical process utilising accuracy not found in other general purpose potentiostats.

### Easily fits into a dry box

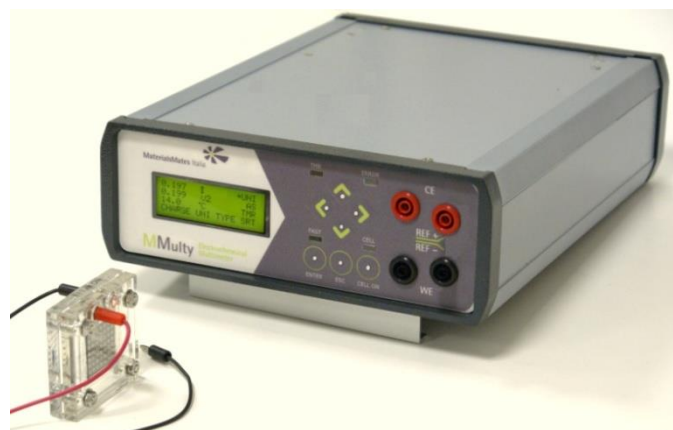
Compact and portable the 510 is small enough to fit into most dry boxes

### Fully floating output

Allows connection to grounded cells and/or pstat series

### Software included

All our instruments come with a complete software suite, complete, flexible and intuitive



The MaterialsM 510 is a high accuracy, high resolution **general purpose potentiostat / galvanostat**. The unit is designed for materials and energy research applications in both academia and industry.

Based on a new and innovative design from our engineering team, the 510 has all the technical electrochemical features you would expect from a high performance instrument in a general purpose package. In particular we have designed a wide current range and a low noise measurement capability in order to increase the low end scan rate for Chrono Voltametry - ideal for corrosion applications.

The 510 uses our all inclusive electrochemistry application software - **VoltaScope**. VoltaScope is designed to considering both the chemist and the engineer and includes all the common electrochemical techniques wrapped an intuitive graphical interface.

# MM 510

20 V 1 A high resolution potentiostat

<b>Generation</b>	
Voltage control range (pstat mode)	+/- 10 V
Voltage compliance	+/- 20 V
Current output (gstat mode)	+/- 1A – 100 nA in 8 ranges
Voltage resolution	10 uV
Current resolution	10 pA max
Accuracy	0.2 % +/- 0.1 % f.s.
Slew rate	
Protection	Hardware Current limiter 2 levels 1A / 50 mA
<b>Measurement</b>	
Current measure	1A – 100 nA in 8 ranges
Current resolution	From 1 pA to 10 uA
Current Measuring accuracy	0.1 % +/- 0.1 % f.s.
Voltage measure	+/- 10 V
Voltage resolution	10 uV (100 uV in manual mode)
Voltage Measuring accuracy	0.1 % +/- 0.1 % f.s.
<b>Reference Electrodes</b>	
Input impedance	1 Tohm
Biasing current	< 10 pA @ 25 °C
Common mode range	+/- 12 V
Common mode rejection	> 50 dB
<b>Meters and Interfaces</b>	
A/D resolution	22-16 bit (slow/fast mode)
Max sampling rate	1 ksample/sec fast mode (50 sample/sec slow mode)
Communication interface	USB 1.1
<b>Frequency response (EIS use)</b>	
Measuring frequency range	DC- 500 KHz
Potentiostat Bandwidth	Selectable 100 Khz- 2 Khz (Hi speed/Hi stab)
Input/output signals	Mod. In Vout Iout (outputs dc-nulled)
<b>Other features</b>	
IR compensation	Low noise current interrupt IR compensation
Thermocouple input	Selectable type K or T
Temperature controller	PID driven ON/OFF to a SSR
Software packs	MMulty-log data acquisition package
Drivers	Active-X optional on request
<b>Dimensions &amp; Sizes</b>	
Voltage mains	115 / 230 Vac selectable
Power consumption	45 W max
Dimensions	280 x 220 x 75 mm - 2.8 Kg

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