

Handheld potentiostat/galvanostat/ZRA

The pocketSTAT is a complete electrochemical measurement instrument with the size of a smart phone. It has been specifically designed for (field) measurements such as corrosion evaluation and analytical chemistry, but suits any low current electrochemical application. The pocketSTAT is powered via USB and can be controlled from any Windows PC/tablet/laptop.

APPLICATION

- Field measurements
- Corrosion
- Coating testing
- Analysis
- Use in a glove box/fume hood



ULTRA-LOW CURRENT VERSION



KEY SPECIFICATIONS

- USB powered
- Size: 16/22 x 6.7 x 1.9cm
- Scan range: $\pm 10V$ @ $\pm 30mA$
- FRA/EIS: $10\mu Hz$ to $1MHz$ (pocketSTAT2 only)
- Acquisition rate: up to 300,000 pnts/s
- Battery pack & Bluetooth connection available

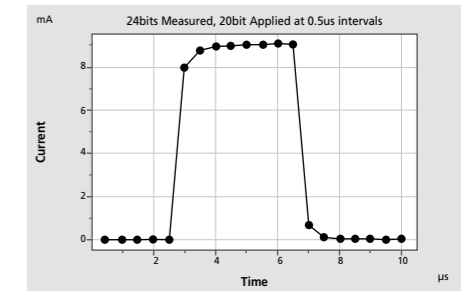
24 BIT INSTRUMENT



Portable USB powered potentiostat/galvanostat/ZRA with integrated impedance analyser

The CompactStat2 is a high end portable potentiostat that can be powered from the USB port of a laptop or PC without additional power supply. With its small footprint (<600 gram) and low power consumption, the CompactStat2 provides a truly mobile electrochemical measurement station that is ideal for use both in the lab and in the field. Its exceptionally high measurement resolution of 24bits gives it a unique level of measurement and control. Among its many applications are corrosion, analytical, nano, bio and battery/fuel cell/electrolyser testing.

VERY HIGH SAMPLE RATE



- Up to 2,000,000 pts/s
- 1,000,000 samples storage

LOW NOISE AND GALVANIC ISOLATION

The CompactStat2 is electrically isolated from power lines and PC. It has superior noise immunity and is capable of determining very small signals, required in nanotechnology applications. Additionally, the instrument can be applied in situations where the sample must be disconnected from the common ground (floating).

THE COMPACTSTAT IS AVAILABLE IN 3 POWER CONFIGURATIONS

- $\pm 30mA$ @ $\pm 10V$
- $\pm 800mA$ @ $\pm 10V$
- $\pm 250mA$ @ $\pm 20V$



POCKETSTAT OVERVIEW

| | pocketSTAT.DC | pocketSTAT2 | pocketSTAT2.LC |
|-------------------------------|-----------------------------|--|----------------------------|
| Electrode connections | 3: WE, CE, RE (and Anin) | 4: WE, CE, RE, S (and GND) | 3: WE, CE, RE |
| Current compliance | $\pm 30mA$ | $\pm 30mA$ | $\pm 30mA$ |
| Maximum output Voltage | $\pm 10V$ | $\pm 10V$ | $\pm 10V$ |
| Potentiostat | | | |
| Applied potential range | $\pm 10V$; 0.08mV res. | $\pm 10V$; 0.08mV res. | |
| Applied potential accuracy | 0.2%, or 2mV | 0.2%, or 2mV | |
| Current ranges | $\pm 10nA$ to $\pm 10mA$ | $\pm 100pA$ to $\pm 10mA$ | $\pm 10pA$ to $\pm 10mA$ |
| Measured current resolution | 0.0005% of range; min 0.5fA | 0.003% of range; min 3fA | 0.003% of range; min 0.3fA |
| Measured current accuracy | 20pA + 0.025% of FSR | 20pA + 0.025% of FSR | |
| Galvanostat | | | |
| Galvanostatic current ranges | $\pm 10nA$ to $\pm 10mA$ | $\pm 10nA$ to $\pm 10mA$ | $\pm 10pA$ to $\pm 10mA$ |
| Measured potential ranges | $\pm 10V$ | $\pm 1mV$ to $\pm 10V$ | |
| Measured potential resolution | 1 μV | 0.0008% of range, min. 7nV | |
| Impedance analyser | | | |
| Frequency range | | 10 μHz to 1MHz | |
| Amplitude | | 0.15mV to 2.0V, or 0.03% to 100% of CR | |
| WE bias current | <20pA | <20pA | <20fA |
| Impedance limit | | $>10^{12} \Omega // 2pF$ | $>10^{15} \Omega // 0.2pF$ |
| Peripheral | | | |
| Analog input 1 | $\pm 10V$ | $\pm 10V$ | |
| Compatibility | | Various modules & multiplexers | |

COMPACTSTAT OVERVIEW

| | Standard | CompactStat2.h10800 | CompactStat2.h20250 |
|-------------------------------|------------------------|---|------------------------|
| Current compliance | $\pm 30mA$ | $\pm 800mA$ | $\pm 250mA$ |
| Maximum output Voltage | $\pm 10V$ | $\pm 10V$ | $\pm 20V$ |
| Potentiostat | | | |
| Applied potential range | | (20bit) / $\pm 10V$; 0.02mV res. | |
| Applied potential accuracy | | 0.2% or 1mV | |
| Current ranges | | $\pm 1pA$ to $\pm 1A$ | |
| Measured current resolution | | 0.00005% of CR, min. 0.5zA | |
| Measured current accuracy | | 20fA + 0.025% of FSR | |
| Galvanostat | | | |
| Galvanostatic current ranges | | $\pm 10pA$ to $\pm 1A$ | |
| Measured potential ranges | $\pm 1mV$ to $\pm 10V$ | | $\pm 1mV$ to $\pm 20V$ |
| Measured potential resolution | | 0.00001% of range; min. 0.15nV | |
| Impedance analyser | | | |
| Frequency range | | 10 μHz to 3MHz | |
| Amplitude | | 0.02mV to 2.0V, and 0.03% to 100% of CR | |
| Peripheral | | | |
| Analog/Digital I/O | | 2 An in; 1 An out; 1 Dig in; 3 Dig out; I/E out; AC out; Channel XY out | |
| Compatibility | | All options and modules | |