

Multi - Channel - Potentiostat Wenking

MCP 94

ECONOMICAL POTENTIOSTATS FOR TESTING CONCRETE AND COATINGS

Two new simple multi - channel - potentiostats have been designed for lowest price at most convenience for users who only want to do simple tasks as e.g. current measurements at constant potential, as required by different practices for determination of coating quality or concrete quality. The multi - potentiostats are available as 4 - channel model and 12 - channel model. While the price is very moderate, the quality is best: using zero - ohm - ammeters for current - to voltage conversion, the signal quality reaches the superior quality of our laboratory model LB 95 L! Model MCP 94 is a low - power potentiostat used to control several independent cells, based on 19" 3 HU boards. Each board contains 2 potentiostats, up to 6 boards fit into one 19 " 84 WE housing.



MCP 94-4, 4 independent cells, 2 displays for current & potential, channel - switch for monitoring the different channels

MCP 94-12, 12 channels, without display, all analogue data fed out on the rear panel

Working Principle

Wideband - potentiostat with extreme high reference electrode input resistance, current measurement based on an active current sink (zero - resistance ammeter). The control voltage is set by a 10 - turn potentiometer, adjustable to 1 mV accuracy within +/- 2 V. The current is displayed on a 3 ½ digit LCD panel meter, combined with a channel selector switch.

Terminals

The cells are connected by 3 - line DIN sockets at the front panel.
Options: Control voltage inputs / recorder output terminal on the rear panel

Specification

Power Supply 230 V / 115 V \pm 10%, 50 / 60 Hz, up to 30 W (acc. to number of channels)

Potential Buffer

Input resistance $> 10^{13} \Omega$, 1 pF parallel
Potential Range ± 5 V
Bias Current < 50 pA at 25°C

Potentiostat

Control Voltage ± 2 V, fixed, adjustable
Bandwidth (unity gain) 250 kHz typ.
Counter electrode voltage max. ± 10 V

Current Sink (Zero Resistance Ammeter)

Current Ranges 3 (Basic version), optionally 6, according to your needs.
Input Resistance DC $< 0.1 \Omega$
Drift $< 100 \mu\text{V} / 10$ h, $200 \mu\text{V} / 100$ h, $10 \mu\text{V} / ^\circ\text{C}$
Noise ref. to input $20 \mu\text{V}$ rms (typ.)
Current Ranges 20 mA, 2 mA, 200 μA , optionally defined acc. to your needs
Current - to voltage conversion 2 V ref. to full range, tolerance 0,2%

Dimensions

19" 3 HE 42 TE (half size) or 84 TE (full size) , weight 6 - 9 kg acc. to number of channels

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INTELLIGENT CONTROLS