Multi - Channel - Potentiostat Wenking



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 independend cells, based on 19" 3 HU boards. Each board contains 2 potentiostats, up to 6 boards fit into one 19 " 84 WE housing.





MCP 94u4, 4 independend cells, 2 displays for current & potential, channel - switch for monitoring the different channels

MCP 94u12, 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

Specification

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

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 Ω . 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 Resi	stance Ammeter)
Current Ranges	3 (Basic version), optionally 6, according to your needs.
Input Resistance DC	< 0.1 Ω
Drift	< 100 μV / 10 h, 200 μV / 100 h, 10 μV / °C
Noise ref. to input	20 µV rms (typ.)

Dimensions

Current - to voltage conversion

Current Ranges

ELEKTRONIK

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

Bank Elektronik - Intelligent Controls GmbH Freiberger Strasse 1 D - 38678 Clausthal - Zellerfeld Telefax 05323 - 9898-99 Telefon 05323 - 9898-10

INTELLIGENT CONTROLS

20 mA, 2 mA, 200 µA , optionally defined acc. to your needs

2 V ref. to full range, tolerance 0,2%