



CATALOG NO. 00908

# MODEL B3A2 MULTIMETER

## ADVANTAGES:

- Designed for the corrosion control industry
- Increased dependability thru solid state design
- RFI shielding throughout
- Accurate stable readings
- Active filtering for power frequency rejection
- Selectable input resistance
- Withstands the harshest environment
- Flexible multimeter for a multiple of tests
- One instrument designed for all your corrosion tests

# GENERAL INFORMATION:

- A major design achievement was to eliminate the effects of RFI, and offer accurate, repeatable readings.
- Impact resistant d'Arsonval meters with taut band movement to withstand rough handling.
- Resistant to rain, dust and temperature 0°F to 150°F
- 10% up scale: - .1, 0, 1; - 2, 0, 2; a visual prompt which indicates when the reading crosses zero.
- Knife edge pointer with easy to view mirror scale.
- Accuracy;  $\pm 0.5\%$  of full scale for all ranges.
- Tracking accuracy;  $\pm 0.5\%$

# SPECIFICATIONS:

## LEFT METER:

### 9 DC VOLTAGE RANGES: ZERO TO FULL SCALE

2 mV	10 mV	20 mV
100 mV	200 mV	1 V
2 V	10 V	100 V

- Minus 10% of full scale on all ranges.
- Input polarity reversal switch on volts and amps ranges eliminates the need to reverse test leads.
- Best resolution: 20 micro volts (.00002 V) on the 2 mV range.

### INPUT RESISTANCE:

2 and 10 mV range, 10,000 Ohms  
20 mV to 100 V range, 100 Megohms

- Line frequency rejection: > 60 db @ 60 Hz
- RF rejection: > 70 db @ 1 M Hz
- Overload protection: 10- times full scale

### 9 DC AMPERE RANGES: ZERO TO FULL SCALE.

2 mA	10 mA	20 mA
100 mA	200 mA	1 A
2 A	10 A	20 A

- Minus 10% of full scale on all ranges.
- Best resolution: 20 micro amps on the 2 mA range.
- Burden voltage: 20 mV

- Overload allowed: 5 times full scale, less than 5 sec.
- Contact check: >200 mA short circuit.
- Adjustable output current supply: controllable 0 to 3 VDC and 0 to 4 amps.
- Control external current flow with built-in 25 watt adjustable rheostats.
- Read internal battery voltage directly.
- Left meter switch: internally connects right meter to left terminals enabling current and voltage to be read simultaneously.

## RIGHT METER:

### 9 DC VOLTAGE RANGES: ZERO TO FULL SCALE.

2 mV	10 mV	20 mV
100 mV	200 mV	1 V
2 V	10 V	20 V

- Minus 10% of full scale on all ranges.
- Input polarity reversal switch on volts.
- Best resolution: 20 micro volts (.00002 V) on the mV range.

### INPUT RESISTANCE:

2 and 10 mV range, 1000,000 Ohms  
20 mV to 100 V range, selectable from  
1 Megohm 10 Megohms 25 Megohms  
50 Megohms 100 Megohms 200 Megohms

- Line frequency rejection: > 60 db @ 60 Hz
- RF rejection: > 70 db @ 1 M Hz
- Bias control:  $\pm$  full scale, all ranges.
- Overload protection: 10 Times full scale.

## APPLICATIONS:

The B3A2 was designed specifically as a cathodic protection test instrument. In most cases, it is all that is required for the test and evaluation of existing systems, or design of a new installation. It can be utilized in making the following tests:

Structure-to-soil potentials, Current measurements (direct, null-amp method, 2 or 4 terminal zero resistance). ■ IR drops and calibration of IR drop test stations ■ Soil or water sensitivity by soil box and by 4 electrode method ■ Soil potential gradients ■ Continuity tests ■ Pipe coating resistance tests and fault surveys (over-the-ground method) ■ Galvanic anode, rectifier output and cathodic protection interference tests ■ Duct slug survey on lead covered cables and concrete bridge deck surveys ■ Ph determination ■ Grounding tests

*The above tests are illustrated in the B3A2 operating manual.*



BUILT TO TAKE IT.

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