

# High Precision LCR Meter with RS232 and Handler Interfaces

Z8900



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- 100Hz, 120Hz, 1KHz and 10KHz test frequencies
- 0.1% basic accuracy
- 5 digit Back Lit dual LCD display
- C+R, C+D, L+R, L+Q, R+Q or Z+ $\Theta$  measurement modes
- Built in comparator for sorting components
- Up to 12 measurements per second
- RS232 and Handler Interfaces
- Easy to use front panel
- Short and Open circuit input calibration
- LCD displays parameter values in Absolute, Delta or Delta %

## SPECIFICATIONS

### Measured Parameters

L (Inductance), C (Capacitance), R (Resistance), Z (Impedance), Q (Quality factor), D (Dissipation factor),  $\Theta$  (Phase angle)

Measurement Circuit configurations: Series and Parallel

### Measurements

#### Resistance

Measured Parameter: R+Q

Measurement Range: R: 0.0001 $\Omega$  to 99.99M $\Omega$

Q: 0.0001 to 9999

#### Impedance

Measured Parameter: Z+ $\Theta$

Measurement Range: Z: 0.0001 $\Omega$  to 99.99M $\Omega$

$\Theta$ : -179.99 $^\circ$  to 179.99 $^\circ$

#### Inductance

Measured Parameter: L+Q, L+R

Measurement Range: L: 1 $\mu$ H to 9999H (100Hz & 120Hz)

0.1 $\mu$ H to 999.9H (1KHz)

0.01 $\mu$ H to 99.99H (10KHz)

Q: 0.001 to 9999

R: 0.0001 $\Omega$  to 99.99M $\Omega$

#### Capacitance

Measured Parameter: C+D, C+R

Measurement Range: C: 1pF to 19999 $\mu$ F (100Hz and 120Hz)

0.1pF to 199.9 $\mu$ F (1KHz)

0.01pF to 19.99 $\mu$ F (10KHz)

D: 0.0001 to 9.999

R: 0.0001 $\Omega$  to 99.99M $\Omega$

### Test Environment

Test Voltages: 0.1V, 0.3V, 1V

Test Voltage accuracy:  $\pm 10\%$

Test Frequencies: 100Hz, 120Hz, 1 KHz, 10KHz

Test Frequency Accuracy:  $\pm 0.02\%$

Measurement rates: Fast: 12 Measurements /Sec

Medium: 5 Measurements /Sec

Slow: 2.5 Measurements /Sec

Output Impedance: 30 $\Omega$  or 100 $\Omega$

Trigger: Manual or Auto.

### Display

Display Type: 320 x 240 pixel LCD w/Backlight

Displayed Value: 5 Digit Dual display of LCR or Z and Q,D or  $\Theta$  measurements

Parameters Displayed: Measured value,  $\Delta$  absolute,  $\Delta$  %

### Measurement Accuracy:

Basic accuracy:  $\pm 0.1\%$  (See user manual for accuracy conditions)

### Calibration: Zero input correction: Open and short circuit

### Remote operation: RS232 and Handler interface

### General Specifications

Power Requirements: 220V or 120V 50/60 Hz Switch selectable

Power Consumption:  $\leq 20$  watts

Operating Temperature: 10 $^\circ$ C to 30 $^\circ$ C (50 $^\circ$ F to 86 $^\circ$ F) @  $\leq 70\%$  R.H.

Dimensions: Size (W x H x D): 13" x 6" x 15.7"

(330mm x 150mm x 400mm)

Weight: 7.7lbs

Accessories: Operator's manual, Test leads with Kelvin clips, Radial lead test fixture with axial lead adaptor, Shorting bar, AC line cord

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