

## LCR Meters 4110 4120 4150 41100



- Measurements from 20Hz to 1MHz (41100)
- 0.1% basic accuracy
- 20ms measurement time
- Parameters Z  $\Phi$  Rac C D L Q Rdc\*
- Drive level from 0.25V to 2Vrms
- RS232 Interface
- +2V internal bias
- Protection against charged capacitors
- Small size & light weight
- Unbeatable price

### Product Description

The 4100 series is the entry level range of Wayne Kerr LCR Meters. They provide a wide range of features and offer high performance and very competitive prices.

### Technical Specification

#### Frequency

4110	20Hz to 100kHz
4120	20Hz to 200kHz
4150	20Hz to 500kHz
41100	20Hz to 1MHz

#### Frequency Steps

20Hz to 1kHz	5Hz
1kHz to 10kHz	50Hz
10kHz to 100kHz	500Hz
100kHz to 1MHz	5kHz

#### AC Drive Level

Open circuit: 0.25V, 0.5V, 1V & 2Vrms  
Signal source impedance: 100 $\Omega$

#### Measurement parameters

Impedance (Z)	Phase Angle ( $\Theta$ )
Capacitance (C)	Dissipation Factor (D)
Inductance (L)	Quality Factor (Q)
AC Resistance (Rac)	
DC Resistance (Rdc)*	

#### Series/parallel equivalent circuit

Any combination

#### Polar Form

Z +  $\Theta$ ,

#### DC Bias Internal

2Vdc

\* Option



## Technical Specification (continued)

Parameter	Measurement Range
Z, R, X	0.01mΩ to >1GΩ
L	1nH to >2kH
C	0.01pF to >1F
D, Q	0.0001 to 9999.9
Phase Angle	-180° to +180°
Rdc	0.1mΩ to >100MΩ

### **Basic Accuracy**

0.1%

Varies with speed, frequency, AC drive level and impedance of Device Under Test

### **Measurement speeds**

Four selectable measurement speeds for all functions. Up to 50 measurements per second, depending on frequency and set up conditions.

### **Measurement Connections**

4 front panel BNC sockets with screens at ground potential.

### **Measurement Modes**

Results for any two parameters can be displayed with full setup details.

Scale Mode allows results for both parameters to be shown on a bar graphs with user defined high and low limits and PASS/FAIL indication.

### **Measurement Setup Memory**

20 different setups can be stored and recalled from internal memory.

### **General**

#### **Power requirements**

90VAC to 264VAC (Autoranging); 47Hz to 63Hz

#### **Display**

¼ VGA (320 x 240) Black & White

#### **Remote control**

RS232

#### **Mechanical**

Height 104mm (4.1") Width 322mm (12.7")

Depth 285mm (11.1") Weight 3kg (6.6lb)

### **Environmental conditions**

#### **Temperature range**

Storage -40°C to +70°C

Operating 0°C to 40°C

Full Accuracy 23°C ±5°C

#### **Relative humidity**

Up to 80% non-condensing

### **Order codes**

Description	Order code
<b>4110</b> 20Hz to 100kHz LCR Meter	<b>1J4110</b>
<b>4120</b> 20Hz to 200kHz LCR Meter	<b>1J4120</b>
<b>4150</b> 20Hz to 500kHz LCR Meter	<b>1J4150</b>
<b>41100</b> 20Hz to 1MHz LCR Meter	<b>1J41100</b>

All units supplied with User Manual, Kelvin clips and AC power cable

### Options

Description	Order code
DC Resistance	/R

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