

LCR Meters 4310 4320 4350 43100



- Measurements from 20Hz to 1MHz (43100)
- 0.1% basic accuracy
- 20ms measurement time
- Parameters Z Φ Rac C D L Q B G X Y Rdc*
- Drive level 10mV to 2Vrms
- RS232 & GPIB Interfaces
- +2V internal / ± 40 Vdc external bias
- Protection against charged capacitors
- Small size & light weight
- Unbeatable price

Product Description

The 4300 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

4310	20Hz to 100kHz
4320	20Hz to 200kHz
4350	20Hz to 500kHz
43100	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:	10mV to 2Vrms
Voltage step size:	10mV (200 steps)
Short circuit:	100 μ A to 20mArms
Current step size:	100 μ A (200 steps)
Signal source impedance:	100 Ω

Measurement parameters

Impedance (Z)	Phase Angle (Θ)
Capacitance (C)	Dissipation Factor (D)
Inductance (L)	Quality Factor (Q)
AC Resistance (Rac)	Reactance (X)
DC Resistance (Rdc)*	Admittance (Y)
Susceptance (B)	Conductance (G)

Series/parallel equivalent circuit

Any combination

Polar Form

Z + Θ , Y + Θ

DC Bias Internal

2Vdc

DC Bias External

± 40 Vdc

* Option

Technical Specification (continued)

Parameter	Measurement Range
Z, R, X	0.01mΩ to >1GΩ
Y, B, G	0.1nS to >2kS
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.

Binning (optional)

User programmable PASS and FAIL bins.
25 way D-type interface connector.

Option /B1 (non-isolated)

Common 0V. Bin outputs 0 to 5V (nominal) with >10mA current sink capability.

Option /B2 (isolated)

Common 24V input. Outputs 0 to 24V with >10mA current source capability.

General

Power requirements

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

Display

¼ VGA (320 x 240) Black & White

Remote control

RS232

GPIB (IEEE-488.2)

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

4310

20Hz to 100kHz LCR Meter

4320

20Hz to 200kHz LCR Meter

4350

20Hz to 500kHz LCR Meter

43100

20Hz to 1MHz LCR Meter

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

Options

Description

Bin handler (non-isolated)

Bin handler (isolated 24V)

DC Resistance

Order code

1J4310

1J4320

1J4350

1J43100

Order code

/B1

/B2

/R

UK

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Wayne Kerr's policy is one of continuous development and consequently the product may vary in detail from the description and specification in this publication.