



LCR Meter - 4230

- Frequency range 100 Hz to 200 kHz
- 0.1% basic measurement accuracy
- Straightforward intuitive operation
- Comprehensive range of functions
- RS232 and GPIB interfaces
- Binning function
- Small physical size
- Low cost

Comprehensive measurement functions

4230 LCR Meter not only measures all the parameters normally encountered in a standard LCR meter but it measures many more in addition to give a truly versatile instrument.

Standard parameters

- Impedance - Z
- Series and Parallel Resistance - R
- Capacitance - C
- Inductance - L
- Dissipation Factor - D
- Quality Factor - Q
- Phase Angle - ϕ

Additional parameters

- Reactance - X
- Conductance - G
- Susceptance - B
- DC Resistance - Rdc (simulated measurement using 5 Hz square wave)

Flexible full remote control

Full control and output capability is a significant benefit of the 4230 LCR Meter. Three interfaces are included as standard: RS232, GPIB and Bin Handler. Remote control and printing are both very straightforward.

Fast, accurate repeatable measurements

Testing electronic components is easy with the 4230 LCR Meter. Connect the component and the meter accurately measures the value - displaying the selected primary and secondary value with a basic accuracy of 0.1%.

Up to 127 instrument set-up conditions can be saved and recalled for rapid and consistent measurements. Connection to the component to be tested is made using one of a range of 4 terminal Kelvin connectors.

Full adjustable range - 100 Hz to 200 kHz

With a variable frequency from 100 Hz to 200 kHz components can be tested at the correct operating frequency.

Superb performance and economical price

The 4230 LCR Meter provides unbeatable performance, 100 Hz to 200 kHz frequency range, 0.1% basic accuracy and comprehensive measurement functions.

RS232, GPIB and bin handler interfaces are all in the instrument as standard.

Accessories

Optional accessories include a four terminal component fixture, Kelvin clips, SMD Tweezer and BNC to 4 terminal component fixture.

Technical specifications, LCR Meter - 4230

Basic accuracy

0.1%

Test Signals

Test frequency	100 Hz to 200 kHz in 390 steps
AC test voltage	50 mV, 100 mV, 250 mV and 1 Vrms
DC test voltage	0.5 V, Rdc (simulated measurement using 5 Hz square wave)
Bias voltage	2 V DC

Parameter range

Z R X	0.01 mΩ to 100.0 MΩ
Z G B	0.0001 nS to 1000.0 S
C _s C _p	0.01 pF to 1 F
L _s L _p	0.01 μH to 100 kH
D	0.0001 to 9.9999
Q	0.1 to 9999.9
Ø	-180° to +180°
Δ	-999.99% to 999.99%
DCR	0.01 mΩ to 100.00 MΩ, simulated Rdc measurement using 5 Hz square wave

Measurement speed

Fast	5 measurements per second
Medium	3 measurements per second
Slow	2 measurements per second

Comparator test mode

Upper and lower test limits in units and percentage

Ranging

Auto and Hold

Trigger

Internal, Manual, External and Bus

Display and indicators

240 x 64 pixel dot matrix LCD
PASS, FAIL and BIAS LED indicators
Internal loudspeaker

Connections

4-terminal BNC guarded connectors

Memory

127 instrument set-up conditions can be saved

Interfaces

RS232 port, Handler Interface, GPIB

Power supply

Input voltage	90 to 132 V AC 198 to 264 V AC - selectable
Frequency	47 to 66 Hz
Power	45 VA typical

Environmental

Installation category	II in accordance with IEC664
Temperature range	Operating: 10°C to 40°C
Relative humidity	Up to 90% non-condensing
Pollution degree	2 (mainly non-conductive)
Altitude	Up to 2000 m

Safety

Complies with the requirements of EN61010-1

EMC

Immunity	EN61326-1
Emissions	EN55022 Class A

Mechanical

Height	150 mm
Width	320 mm
Depth	300 mm
Weight	6 kg without accessories

Order codes

Description	Order code
4230 LCR Meter with user manual, power cord and Kelvin leads (AC-6870K1)	1J4230

Optional accessories

4 terminal component fixture	FX-0000C1
Kelvin clips (fine jaws)	1EVA40100
Kelvin clips (large jaws)	1EVA40180
SMD Tweezer	1EVA40120
BNC to 4 terminal component fixture	1EV1006

UK

Wayne Kerr Electronics
Vinnetrov Business Park
Vinnetrov Road, Runcorn
Chichester, West Sussex
PO20 1QH, UK
Tel: +44 1243 792200
Fax: +44 1243 792201

USA

Wayne Kerr Electronics
165L New Boston Street
Woburn
MA 01801-6201 USA
Tel: +1 781 938 8390
Sales: (800) 933 9319
Fax: +1 781 933 9523