

## High Precision LCR Meter



Aplab High Precision LCR Meter Models 4100 and 4200 are high class digital LCR meter for applications in component measurements, in R&D and in production activities. A large 240 x 120 dot matrix LCD with back light is used for better contrast and visibility. Measurements are always accompanied with supplement factors such as R/Q, C/D, C/R & L/Q. 100 sets of measurement set up memory allow sharing of multiple testing conditions. Windows based proprietary software is provided optionally for PC communication through RS232C Interface.

### FEATURES

- Test Frequency : 12Hz ~ 200KHz.
- Continuously Variable Frequencies.
- 0.05% High Measurement Accuracy.
- 100 Sets Memory for Save / Recall of Settings.
- R/Q, C/D, C/R, L/Q Test Modes.
- Absolute value,  $\Delta$ Value and  $\Delta\%$ Measurement Display.
- 240 x 128 dot Matrix LCD Display.
- Simultaneously Display Test Condition and Test Result
- Optional Interface : RS-232C (Including LCR-Viewer Software.

## Technical Specifications

MODELS	4100	4200
<b>TEST FREQUENCY</b>	12Hz to 100kHz (503 steps).	12Hz to 200kHz (504 steps).
<b>BASIC ACCURACY</b>		
R, L, C, Z	0.05% (Basic).	0.05% (Basic).
D, Q	0.0005 (Basic).	0.0005 (Basic).
∅	0.03°.	0.03°.
<b>TEST SPEEDS</b>	Slow 896 msec, Medium 286 msec, Fast 135 msec.	
<b>TEST SIGNAL LEVELS</b>	5mV to 1.275V at 200kHz > 100mV.	
<b>DC BIAS</b>	Int. 2V, Ext. 30V DC, <200mA.	
<b>MEASUREMENT PARAMETERS</b>	Ls/Lp, Cs/Cp, Rs/Rp, D, Q, ESR, EPR, Z, ∅.	
<b>MEASUREMENT MODES</b>	R/Q, C/D, C/R, L/Q, Z/∅, L/R.	
<b>DISPLAY RANGE</b>		
<b>PRIMARY DISPLAY</b>		
Inductance (L)	0.00001 mH - 99999 H.	
Capacitance (C)	0.00001 pF - 99995 μF.	
Resistance (R)	0.00001 Ω - 99999 KΩ.	
Absolute Impedance (Z)	0.00001 Ω - 99999 KΩ.	
<b>SECONDARY DISPLAY (4 Digits)</b>		
Dissipation Factor (D) (with C)	0.0001 - 9999.	
Quality Factor (Q) (with L or R)	0.0001 - 9999.	
∅ (Phase Angle of Impedance)	180°C to ±180°C.	
ESR	0.0001Ω - 9999KΩ.	
EPR	0.0001Ω - 9999KΩ.	
Interface Standard	RS232C.	
D (in ppm) (with C)	1 ppm - 9999 ppm.	
Q (in ppm) (with L or R)	1 ppm - 9999 ppm.	
<b>MEASUREMENT DISPLAY</b>	Value, Δ% & Δ.	
Δ%	0.00001% - 99999%.	
<b>EQUIVALENT CIRCUIT</b>		
L, C, R	Series or Parallel.	
Z/∅	--	Parallel.
<b>MEASUREMENT MODES</b>	Auto / Manual.	
<b>AVERAGE</b>	1 - 255.	
<b>MEMORY</b>	100 memory blocks totally.	
<b>INTERFACE STANDARD</b>	RS232C.	
<b>LCD MONITOR</b>	240 X 128 dot matrix CCFL back light with adjustable contrast.	
<b>BATTERY (For System Memory &amp; Backup)</b>	3V, BR-2/3 A type Lithium.	
<b>OPERATING CONDITIONS</b>	10°C - 50°C <85% RH. Storage 20°C - 60°C.	
<b>POWER REQUIREMENTS</b>	100 - 240 V AC, 50Hz - 60Hz, 45W max. 250V, 3A (SLO-BLOW).	
<b>DIMENSIONS</b>	330 (W) x 149 (H) x 437 (D) mm.	
<b>WEIGHT</b>	5.5 Kg.	
<b>ACCESSORIES</b>	<ol style="list-style-type: none"> <li>1. User Manual.</li> <li>2. Power Cord.</li> <li>3. Test Lead - 4 Wire.</li> <li>4. RS232 Cable (Optional).</li> <li>5. Software - LCR Viewer (Optional).</li> </ol>	