

LCR Meter SM5118



Technical Specifications (Reference Temperature 23 °C ± 5 °C)

Measurement Modes	: Auto/ Manual L, C, R, Z, Q, D, θ
Equivalent Circuit	: Series or Parallel
Measurement Ranges	: Auto or Manual
L	: 0.1 μ H to 9999 H, Resolution 0.1 μ H
C	: 0.1 pF to 9999 μ F, Resolution 0.1 pF
R	: 0.001 Ω to 100 M Ω , Resolution 0.001 Ω
Z	: 0.001 Ω to 100 M Ω , Resolution 0.001 Ω
Q	: 0 to 99
D	: 0 to 10
θ	: -180° to +180°
Test Conditions	
Test Frequency	: 100 Hz/ 1 kHz
Test voltage	: 0.3 Vrms
Measurement Speed	: 2 Meas/ sec
Measurement Accuracy	: $\pm 0.25\% \pm 1$ digit, accuracy varies with range & frequency selected, (after 30 min. warm up period)
Accuracy of Test Frequency	: 0.025%
Condition For Basic Accuracy	
L	: 2 mH to 2000 H, Q > 10, at 100 Hz : 200 μ H to 200 H, Q > 10, at 1 kHz
C	: 2 nF to 2000 μ F, D < 0.1, at 100 Hz : 200 pF to 200 μ F, D < 0.1, at 1 kHz
R	: 1 Ω to 2 M Ω , Q < 0.1, at 100 Hz : 1 Ω to 2 M Ω , Q < 0.1, at 1 kHz
Connection	: 4-wire Kelvin on BNC guarded connector for probes & fixtures connections
Recommended Circuit Mode	
L	: 0.1 μ H to 9999 H, series mode
C	: > 1 μ F (elect), series mode : Any non elect (≤ 1 μ F elect), Parallel Mode
R	: ≤ 10 k Ω , series mode : ≥ 10 k Ω , Parallel Mode

- Comprehensive range of functions, L, C, R, Z, Q, D, θ
- Measurement accuracy 0.25%
- Test frequency standard 100 Hz / 1 kHz
- Series or parallel mode
- Auto ranging & Auto computing
- Low accuracy prompt
- 4 point measurement technique
- Front panel zero compensation
- Compact & low cost

- Zero Compensation** : Auto calibration on each frequency,
Open or Closed: limits compensation
Closed: $R < 14 \Omega$, $|Z| < 14 \Omega$
Open: $|Z| > 1 M\Omega$
- Low Accuracy Prompt** : Range indicating LED flashing for value which can be displayed but cannot be measured to basic accuracy
- Hold** : Disable auto range to measure large quantity of components within particular range
- DC Bias** : Internal 2 VDC or external 50 VDC for electrolytic capacitor.
- General Information**
- Display** : 4 digits 12.5 mm, 7 segment LED display & units' LEDs
- Operating Conditions** : 0-45 °C, RH 95%
- Supply** : 230 V $\pm 10\%$, 50 Hz
- Power Consumption** : ≤ 6 VA
- Dimensions** : W 205, H 95, D 292 mm
- Weight** : 1.82 kg (approx.)
- Accessories**
- Standard** : Operating manual, BNC to Kelvin probe, detachable mains cord, spare fuse (Subject to change)

Basic Accuracy Graph

