

3½ - Digit LC Meter HM8018



Measurement functions: L, C, R

Option H0801



3½-digit display with 2,000 counts, basic accuracy 0.5 %

4-wire measurement

Max. resolution: 0.1 pF, 0.1 μH, 10 mΩ, 0.01 μS

Internal bias for electrolytic capacitors selectable

Mainframe HM8001-2



Offset adjustment of cable capacity for the “Kelvin test lead”

AC voltage signal at rear-panel BNC connector proportional to value shown in the display (with Option H0801 only)

Mainframe HM8001-2 required for operation

Option HZ18 Kelvin test lead



3 1/2 -Digit LC Meter HM8018

Valid at 23 °C after a 30 minute warm-up period

Operating modes

C measurement
L measurement
Series inductance L, Shunt capacitance C
Series resistance R, Parallel conductance G

Measurement ranges

	L: 200 µH-200 H (7 ranges)
	Rs: 20 Ω-200 kΩ (5 ranges)
	C: 200 pF-200 µF (7 ranges)
	G: 20 µS-200 mS (5 ranges)
Max. resolution:	0.1 pF 0.1 µH 0.01 Ω 0.01 µS
Measurement frequencies:	{sine wave signal} ~160 Hz, 1.6 kHz, 16 kHz ($\omega = 10^3, 10^4, 10^5 \text{ s}^{-1}$)
Measurement voltage:	max. 1 V _{pp}
Measurement current:	max. 36 mA (eff.)
Power output to device under test:	max. 3.2 mW
Measurement accuracy:	± [0.5% of reading + (3 digit s + 0.5 pF / 0.5 µH / 10 mΩ / 0.01 µS)]

Measurement error resulting from separation of the real and imaginary part
≤ 1% at $\tan\phi \geq 1$

Display

Sampling rate:	3 1/2-digit 7-segment LED display
Type of measurement:	2 measurements per second 2- or 4-wire measurement

Miscellaneous

Inputs are short-circuit-proof and overvoltage protected up to 100V with a maximum energy consumption of 10 mJ (A capacitor 2 µF, charged to 100 V).

Polarization voltage for C measurement: 2 V

Zero point correction for display

Compensation of probe capacitance (HZ18)

AC voltage signal at rear-panel BNC connector proportional to value shown in the display (HM8001 with option HO801)

Power supply +5 V/200 mA
(from mainframe): -13 V/130 mA
+13 V/130 mA
($\Sigma = 4.5 \text{ W}$)

Operating temperature: +10 °C to +40 °C

Max. relative humidity: 80 % (without condensation)

Dimensions (W x H x D) (without 22-pole flat plug):

135 x 68 x 228 mm

Weight: approx. 0.65 kg

Accessories supplied: Operator's Manual

Optional accessories: HZ18 Kelvin test lead

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