

E7-16 LCR Meter

Measures:

◆ **imittance LCR parameters of isolated, grounded and remote objects**

◆ **electrolytic capacitor leakage current**

Two levels of a measuring signal



DESCRIPTION

The LCR Meter is widely used for incoming and outgoing control of electronic radio components in laboratories and repair shops.

The Instrument is compatible with RS 232C interface bus.

Measurement Objects:

- capacitors, inductors, resistors, relays, switches, diodes, cables;
- input resistances and capacitances of oscilloscopes, voltmeters and other instruments.

With corresponding sensors (for example, temperature, pressure sensors) the Instrument can measure

various physical values and can be used for a technological process control.

The E7-16 with an external device OK3V (short-circuited coils detector) may be used for short-circuit detection in chokes, transformers before a magnetic circuit installation. The coil under test hole diameter is not less than 10 mm.

The OK2V is delivered by a special order.

SPECIFICATIONS

Test frequencies: 100 Hz and 1 kHz

Measurement range:

capacitance: 0.01 pF-0.16 F

inductance: 0.01 μ H-16 kH

resistance: 0.1 mOhm-100 MOhm

conductance: 0.1 nS-100 μ S

dissipation factor: 0.0001-2

quality factor 0.0001-0.5

leakage current: 0.1 μ A-2 mA

Measurement error:

imittance parameters 0.15%

leakage current 3%

Display: 4.5 digits

Signal level

high 3 ± 0.3 V, 3 ± 0.6 mA

low 0.2 ± 0.03 V, 0.2 ± 0.06 mA

DC bias 5 V (internal)

Measurement time: 0.5 s (fixed range)

Distance to the DUT: up to 100 m

GENERAL

Power: 220 ± 22 V, 50 Hz

Power consumption: 16 VA

Operating temperature range: 0...40 °C

Dimensions: 241x110x298 mm

Weight: 3.2 kg

Reference Resistance SET N2-1

DESCRIPTION

Designed for a verification of complex resistance meters with four- or five-terminal connection of the measured objects in 100 Hz - 1 MHz frequency range.

The Set comprises 7 measures with nominal values of 1, 10, 100 Ohm, 1, 10, 100 kOhm, a zero resistance calibrator and a zero conductance calibrator.

SPECIFICATIONS

Main error of standardization in accordance with active resistance: $\pm 0.03\%$

Phase shift angle tangent: $\leq 1 \cdot 10^{-3}$

Intrinsic error of certification in accordance with loss angle tangent:

at $f \leq 1$ kHz $\pm 1 \cdot 10^{-4}$

at $f \geq 1$ kHz $\pm 3 \cdot 10^{-4}$

Operating temperature range: 15-25 °C

Dimensions: 112x42x49 mm

Weight of one measure: 250 g

Measures are placed in a portable box

Total weight: 5 kg