

CARATTERISTICHE

- Modalità di test parallelo/seriale
- Modalità di ordinamento per QC
- Memorizzazione dei dati
- Impostazione automatica della gamma
- Retroilluminazione automatica

Misuratore LCR portatile LCR 20mF, 200M Ω , 20kHz RS Pro

Codice RS: 123-3255



I prodotti firmati RS approvati per impieghi professionali offrono componenti di qualità professionale in tutte le categorie di prodotti. La nostra gamma di prodotti è stata testata da ingegneri e offre una qualità paragonabile a quella dei marchi leader senza pagare un prezzo eccezionale.

DESCRIZIONE del

T Il misuratore LCR intelligente portatile ISO ISO-TECH LCR 1701 è dotato di un'innovativa tecnologia di selezione automatica. Il suo display retroilluminato con accensione/spegnimento automatico offre all'utente una visibilità continua, prolungando la durata della batteria. Questo strumento ha un prezzo competitivo, è Advanced dal punto di vista tecnico, è estremamente efficiente, sottile e tattile, con impugnatura comoda dal design ergonomico. Include anche morsetti a coccodrillo, barra messa in corto circuito, batteria (installata) e manuale.

Specifiche generali

Numero di modello	LCR-1701
Tipo	Palmare
Tipo di componenti	Induttori, condensatori, resistori
Parametri di misurazione	L / C / R / D / θ / ESR
Modalità test	In serie/parallelo
Frequenza di prova	100Hz / 120Hz / 1kHz / 10kHz / 100kHz selezionabili
Impedenza di uscita	20 Ω / 200 Ω / 2k Ω / 20k Ω / 200k Ω / 2M Ω / 20M Ω / 200M Ω SELEZIONABILI
Precisione di base	0.2%
Coefficiente di temperatura	0,15 x (precisione specificata) / °C, < 18 °C, > 28 °C.
Tipo di visualizzazione	Display grafico a barre retroilluminato automatico
Impostazione automatica della gamma	Sì
Memorizzazione dei dati	Sì
Tempo di spegnimento automatico	Sì
- Indicatore di batteria scarica	Sì
Indicazione di sovraccarico	Sì
Interfaccia	USB
Disponibilità calibrazione	Calibrazione automatica

Intervallo di visualizzazione

Parametro	Gamma
R, X, Z	Da 0.00001 Ω a 200M Ω
L	Da 20.000 uh a 20.000 kH
C	Da 20,000 pF a 20,000 MF
D	da 2.000 a 2.000
D	da 2.000 a 2.000
DCR	Da 200 Ω a 200M Ω

Test della misurazione del

CA	
Livelli	600mVrms
Precisione di livello	±10%
Impedenza di uscita	200Ω
Frequenza	Da 100Hz a 100kHz
Risoluzione	0,01 Hz (da 100Hz a 120Hz)
	0.1Hz (1KHz)
	1Hz (10kHz)
	10Hz (100.0kHz)
Precisione frequenza	± 0.01%
CC	
Gamma di livelli	1V c.c.
Precisione di livello	± 10%
Impedenza di uscita	200Ω

Misurazione dell'induttanza

Gamma	100/120Hz	1KHz	10KHz
20.000uH	N/D	N/D	N/D
200.00uH	N/D	N/D	0.5% + 5
2000.0uH	N/D	0.5% + 5	0.2% + 5
20.000mH	0.5% + 5	0.2% + 5	0.2% + 5
200.00mH	0.2% + 5	0.2% + 5	0.2% + 5
2000.0mH	0.2% + 5	0.2% + 5	2.0% + 5
20.000H	0.2% + 5	0.2% + 5	5.0% + 5
200.00H	0.2% + 5	0.5% + 5	N/D
2000.0H	0.5% + 5	1.0% + 5	N/D
20.000KH	1.0% + 5	N/D	N/D

Misurazione della capacità

Gamma	100/120Hz	1KHz	10KHz
20.000pF	N/D	N/D	N/D
200.00pf	N/D	N/D	0.5% + 5
2000.0pF	0.5% + 5	0.5% + 5	0.2% + 5
20.000nF	0.2% + 5	0.2% + 5	0.2% + 5
200.00nF	0.2% + 5	0.2% + 5	0.2% + 5
2000.0nF	0.2% + 5	0.2% + 5	0.5% + 5
2000.0μF	0.2% + 5	0.5% + 5	2.0% + 5
20.000μF	0.5% + 5	1.0% + 5	5.0% + 5
200.00μF	1.0% + 5	2.0% + 5	N/D
20.000mF	2.0% + 5	N/D	N/D

Misurazione della resistenza

Gamma	100/120Hz	1KHz	10KHz
20.000Ω	N/D	0.5% + 5	0.5% +5
200,00 Ω	0.2% + 5	0.2% + 5	0.2% +5
2.0000kΩ	0.2% + 5	0.2% + 5	0.2% +5
20.000kΩ	0.2% + 5	0.2% + 5	0.2% +5
200.00kΩ	0.2% + 5	0.2% + 5	0.2% +5
2.0000MΩ	0.2% + 5	0.2% + 5	2.0% +5
20.000MΩ	0.5% + 5	2.0% + 5	5.0% + 5
200.00MΩ	1.0% + 5	5.0% + 5	N/D

Misurazione della resistenza

Gamma	Risoluzione	Precisione
200,00 Ω	10mΩ	0.2% +5
2.0000kΩ	100mΩ	0.2% +5
20.000kΩ	1Ω	0.2% +5
200.00kΩ	10Ω	0.2% +5
2.0000MΩ	100Ω	0.2% +5
20.000MΩ	1kΩ	0.5% +5
200.00MΩ	10kΩ	1.0% +5

Specifiche elettriche

Alimentazione	Batteria
Batteria inclusa	Sì
Tipo di batteria	AAA
Durata della batteria	80 ore

Specifiche meccaniche

Dimensioni	95mm x 207mm x 52mm
Lunghezza	52mm
Larghezza	95mm
Altezza	207mm
Peso	630g

Specifiche dell'ambiente operativo

Umidità di esercizio	Fino all'80% U.R.
Umidità di stoccaggio	Da 0% a 80% U.R.
Temperatura di esercizio	Da 0 °C a 50 °C.
Intervallo di temperatura di conservazione	Da -20 °C a 60 °C.
Livello di inquinamento	Grado di inquinamento 2

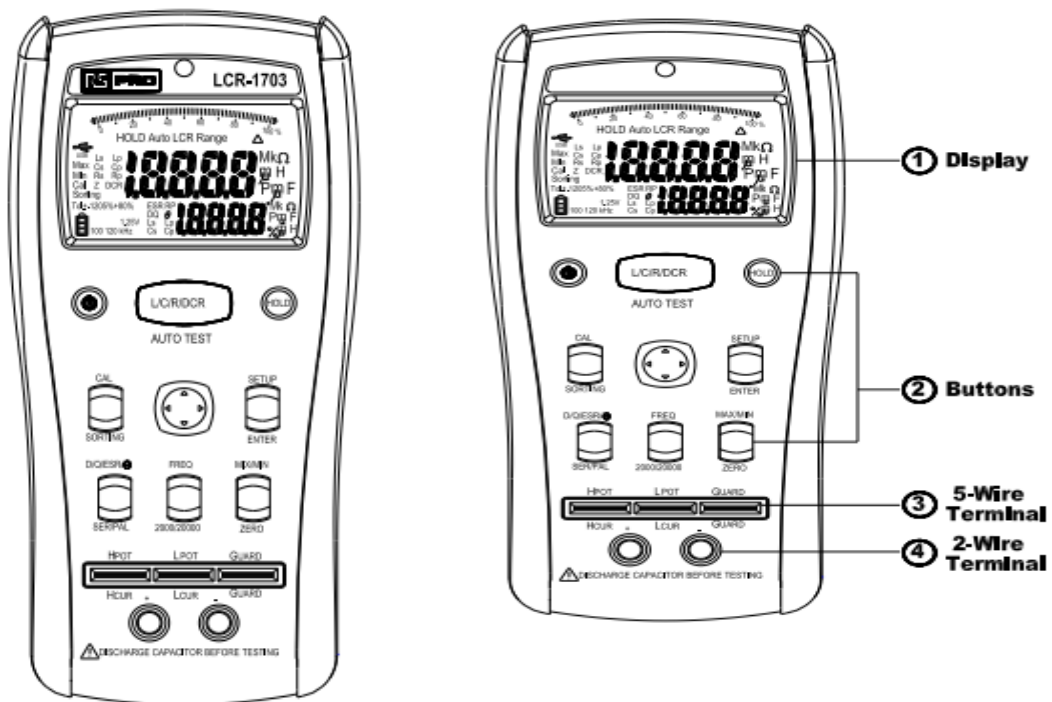
Omologazioni

Conformità/certificazioni	EN 61010-1, IEC 61010-1, EN 61326-1
Dichiarazioni	Certificato di conformità RoHS



General:

Sampling Rate:	1.25 times/sec
Overload Indication:	"OL" or "-OL"
Low Battery Indication:	
Auto Power Off:	Approx. 10 minutes after last operation
Operating Temperature:	Non-condensing < 10°C 11 °C ~ 30 °C (<80% RH) 30 °C ~ 40 °C (<75% RH) 40 °C ~ 50 °C (<45%RH)
Storage Temperature:	-20°C to 60°C, 0% RH to 80% RH (batteries not fitted)
Temperature Coefficient:	0.15 x (Specified accuracy) / °C, < 18°C, > 28°C .
Safety:	Complies with EN 61010-1, IEC 61010-1, EN 61326-1
Power Requirement:	4 x 1.5V IEC LR6 or AA size
External Power requirement:	DC 5V (USB or AC adapter)
Battery Life:	80 hours
Size:	95mm(W) x 207mm(L) x 52mm(D)
Weight:	Approx. 630g (with battery)
Accessories:	Alligator Clips, Shorting bar, Magnetic Hanging Kit, Battery (installed) and Manual



A. Consecutive Frequency and Convenient Zero Function



Consecutive and Adjustable Frequency Selectable Fixture Zeroing Methods
 Freely Input Frequency Within Provided Full Frequency Range Zero or Spot Zero Frequency Range

The LCR-6000 series, within the provided frequency range, features consecutive and adjustable frequency capability which allows users to conduct measurement and analysis on components with the most genuine frequency requirements. For OPEN/SHORT fixture compensation function, the LCR-6000 series is equipped with full frequency range zero and spot zero selections. After executing full frequency range zero, users, under the conditions of not turning off the power and not changing test fixture, can freely change test frequency for the LCR-6000 series to execute component measurements that tremendously saves time in repeatedly zeroing test fixture after changing frequency.

B. Rich and Diverse Information Display



MEAS Display Parameter Setting and Four Measurement Parameters
ENLARGE Display Enlarge Measurement Results and Include PASS/FAIL Judgment

The measurement result display of the LCR-6000 series not only reveals major and secondary measurement parameters but also includes two monitoring parameters. Therefore, four DUT related parameters can be simultaneously shown on the display screen to save time if repeated measurements are required. With respect to display screen, the LCR-6000 series features diverse display to meet users' observation requirements. For instance, MEAS display shows setting parameters and measurement results at the same time; ENLARGE display focuses on measurement results and PASS/FAIL judgment is available, which is conducive to assist engineers to swiftly obtain the validity of measurement results.

C. Diverse Ancillary Measurement Functions



Automatic Level Control
 Ideal for Measuring Components With Voltage Requirements



Internal Bias (±2.5V Adjustable)
 Ideal for Capacitive Components' Characteristic Tests

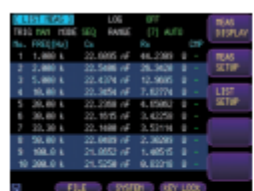


D.C. Resistance Measurement
 Ideal for inductive components' D.C. Characteristics Verification

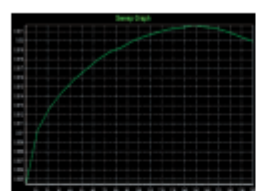
To satisfy the diverse measurement application requirements for different components and materials, the LCR-6000 series collocates with many auxiliary measurement functions. For capacitor measurement, Automatic Level Control (ALC) is mainly for component which requires a constant or rated test voltage such as multi-layer ceramic capacitor (MLCC). An internal D.C. bias voltage (±2.5V, internal) is allowing simulating A.C. and D.C.

coexistence to learn capacitance variation. For inductor measurement, the D.C. resistance measurement function is to validate D.C. resistance characteristics. Additional, the LCZ function is to quickly identify components' characteristics. When the function is activated, the LCR-6000 series will automatically determine DUTs' characteristics and reveal the optimum parameters to show the measurement results.

D. 10 Points Listed Tests and PC Software



Listed Tests
 Variation Criteria Based Upon Frequency or Voltage/Current



On Software - Characteristic Curve
 Provide More Delicate Characteristic Variation Trend

The LCR-6000 series provides the 10 points listed test function, which allows users to define a set of DUT measurement parameters (such as Cs-Rs) and to set 10 test criteria of category (either by frequency or by voltage or by current) but different values to conduct measurements. Through this function, users can rapidly and clearly obtain DUT's characteristic variation trend to determine the adaptability of DUT's practical applications. The measurement results can be recorded directly in the internal memory and be transferred to the PC through USB. The LCR-6000 series also provides free PC software (maximum 1,000 points listed tests) in order to satisfy users' analytical requirements on delicate variation.

E. Standard Interface



Standard Interface

For interface connectivity, the LCR-6000 series comes equipped with Handler interface and RS-232C interface. Handler outputs 10 BIN (9BIN, AUX: 1BIN) sorting results that is best for external connection control, for instance, connecting to a sorting machine to conduct components' sorting operation. RS-232C is suitable for remote control and measurement results retrieval. The PC gives commands to control settings or to read measurement results so as to achieve the requirements of verifying automotive applications.

La serie LCR-6000 RS Pro offre una scelta di 5 modelli con diverse frequenze di prova: 2 kHz, LCR-6002, [117-6718](#); 20 kHz, LCR-6020, [117-6717](#); 100 kHz, LCR-6100, [117-6716](#); 200 kHz, LCR-6200, [117-6715](#); 300 kHz, LCR-6300, [117-6714](#).)