



INTRODUCTION

The Metravi 4090 Benchtop LCR Meter is an intelligent parameter test instrument. It is based on microprocessor processing technology, to automatically measure Inductance (L), Capacitance (C), Impedance (R), Dissipation Factor (D) and Quality Factor (Q).

It has features of practical function, good performance and convenient operation, which is variously used in factories, colleges, and institutes for accurate measurement of device parameters. It makes use of advanced measurement principle and the five-side measurement technology and can accurately measure for a long time without special adjustment.

In order to ensure accurate measurements, please use the ZERO function to clear stray capacitance and lead resistance caused by the test fixture.

FEATURES & FUNCTIONS

- Based on single micro-processor using advanced 5 ports techniques and micro-processor corrected errors
- Impact protection
- Locking range
- Special zeroing function
- Easy operation
- High stability
- Suitable for testing production field



*Technical Specifications & Appearance are subject to change without prior notice

TECHNICAL SPECIFICATIONS

Parameter	Operating Frequency	Measuring Range	Measuring Accuracy
L	100Hz	1μH~9999H	$\pm[1\mu\text{H}+0.25\%(1+L/200\text{H}+2\text{mH}/L)](1+1/Q)$
	1KHz	0.1μH~999.9H	$\pm[0.1\mu\text{H}+0.25\%(1+L/200\text{H}+0.2\text{mH}/L)](1+1/Q)$
	10KHz	0.01μH~99.99H	$\pm[0.01\mu\text{H}+0.5\%(1+L/10\text{H}+0.04\text{mH}/L)](1+1/Q)$
C	100Hz	1pF~9999μF	$\pm[1\text{pF}+0.25\%(1+1000\text{pF}/\text{Cx}+\text{Cx}/1000\mu\text{F})](1+\text{Dx})$
	1KHz	0.1pF~999.9μF	$\pm[0.1\text{pF}+0.25\%(1+100\text{pF}/\text{Cx}+\text{Cx}/100\mu\text{F})](1+\text{Dx})$
	10KHz	0.1pF~99.99μF	$\pm[0.01\text{pF}+0.5\%(1+20\text{pF}/\text{Cx}+\text{Cx}/4\mu\text{F})](1+\text{Dx})$
R		0.1Ω~99.99MΩ	$\pm[1\text{m}\Omega+0.25\%(1+R/2\text{M}\Omega+2\Omega/R)](1+Q)$
Q	100Hz	0.001~9999	$\pm[0.020+0.15(Qx+1/Qx)\%]$
	1KHz		
	10KHz		$\pm[0.020+0.2(Qx+1/Qx)\%]$
D	100Hz	0.0001~9.999	$\pm 0.0010 (1+\text{Dx}^2)$
	1KHz		
	10KHz		$\pm 0.0015 (1+\text{Dx}^2)$

GENERAL SPECIFICATIONS

SPECIFICATION	PARTICULARS
Measuring Parameters	L, C, R, Q, D
Measuring Frequency	100Hz, 1kHz, 10kHz± 0.02%
Test Signal Level	0.3Vrms±10% (Empty) @ 1 KHz
Test Speed / Sampling Rate	4-6 times per second
Operating Temperature	0°C~40°C
Operating Humidity	≤85% RH
Power Supply	Voltage: AC198V~242V / Frequency: 50Hz±5%
Power Consumption	<30W
Dimensions and Weight	360×125×320mm / Weight: about 3.5Kg
Accessories	LCR Digital Bridge, 1 set LCR005 Test Fixture, 1 set LCR001 Measuring Cable, Power Cord, User Manual



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