



**MW 1008P**

## Automatic RLC bridge

The MW1008P is a sophisticated instrument driven by a powerful micro-controller allowing to measure passive devices with a precision of 0,2% never reached in this price range. The MW1008P use the auto-balanced bridge technique with 4 wires measure, and has more than 500 measurement frequencies. The MW1008P also has an auto-zero function (OPEN/SHORT calibration) and the ability to characterize transformers. An optional extension allows the measurement of varactor diodes up to 30V.

### A powerful micro-controller

The RLC automatic bridge MW1008P uses a last generation micro-controller which made the design of this instrument possible at a price much smaller than equivalent professional equipments.

### A large functions panel

The MW1008P has a large number of functionalities which makes it universal. Beyond measurement of capacities and inductances, the MW1008P allows measurement of phase angle, modulus, quality factor (Q) and dissipation factor (D). Serial resistance (ESR) or parallel one is measured according to the model chosen by user (serial or parallel). The MW1008P integrates a transformer measurement function, and an

automatic sorting mode thanks to the integrated buzzer.

### Measured parameters :

#### Main parameter (serial or parallel)

L :	Inductance
C :	Capacity
R / ESR :	Resistance
Z :	Module
M :	Mutual inductance (Transformer)

#### Secondary parameter :

Q :	Quality factor
D :	Dissipation coefficient
$\Theta$ :	Phase angle
n :	Transformer ratio

#### Test frequencies :

100-120-250-500 Hz, 1 kHz  
2,5-5-7,8-12,5 kHz-15,6 kHz  
25 kHz plus one user-defined

#### Applied voltage :

500 mVrms ( $\pm 10\%$ )

#### Display : 10 000 points

Indication of frequency, and impedance range

#### Automatic functions:

Automatic range with manual hold  
Automatic parameter (RLC) with manual selection


### Auto-balanced bridge technique for higher precision

The MW1008P uses the auto-balanced bridge technique, which allows to get a high measurement precision.

The tested component being subjected to a high purity sine wave signal, the current flowing through it and voltage across it are measured in complex mode using a wide dynamic range phase detector. Calculating the ratio gives the unknown impedance. The R, L, C values are deduced taking into account the chosen model and the test frequency.



Cp 5256  $\mu$ F A1  
D 0.0005 On 100



Ls 47.12  $\mu$ H A1  
Q 45.1 Off 10k

## Ranges

Parameter	Range
R,  Z	0,001 $\Omega$ to 99,9M $\Omega$
L,M	0,01 $\mu$ H to 9999 H
C	0,001pF to 99,9mF
D	0,0001 to 9999
Q	0,0001 to 9999
n	0,0001 to 10
$\theta$	-180.00 to +180.00°

## Precision :

Main parameter : 0,2%

## Zero:

Compensation by open/short circuit.

## Connexion :

Kelvin 4 wires (5 pins connector on side)

## Display functions :

- HOLD : freezes the current measurement range
- Displays normal value
- Relative display
- Displays deviation in percent

**Sorting :** Enter nominal value and acceptable error in percent. An

acoustic signal is generated while value is within limits.

## Options

- Kelvin pincers cable
- Mini-pincers cable
- Special pincers for SMT component
- Varactor diodes measurement adaptor

## General information

### Power supply :

Ext. : 8 to 15V, 200mA max by external jack

Int. : 9V battery

**Display :** LCD 2 lines of 16 characters with backlight.

**Temp. range:** +5°C to +50°C

**Dimensions:** 150(L) x 26(P) x 88(H)

**Weight:** 250g (without battery)