

BS1703**3 3/4 Digits Professional Auto Range Multimeter with Capacitance ,
Frequency Measurement and Duty Cycle**

Features:

- 3 3/4 digits LCD display
- DC voltage 400mV to 600V
- AC voltage 4V to 600V
- DC current 400 μ A to 10A
- AC current 400 μ A to 10A
- Resistance 400 Ω to 40M Ω
- Capacitance 4nF to 100 μ F
- Frequency up to 9.999MHz
- Duty Cycle Measurement
- Diode/Continuity test
- Auto Power Off
- Data Hold
- Conform to IEC1010/EN61010-1, CE-EMC & LVD
CATIII 600V

**General Specifications**

Display	: 3 3/4 digits LCD with max. reading of 3999.
Polarity	: Automatic, (-) negative polarity indication.
Zero adjustment	: Automatic.
Over range indication	: Only the MSD "OL" is displayed.
Power	: Single, standard 9 volt battery NEDA 1604, JIS 006P, IEC6F22.
Dimension	: 75 (W) x 144 (H) x 40 (D) mm.
Weight	: Approx. 180 g (including battery).

Electrical Specification

Accuracies are \pm (% of reading + number of least significant digits) at 23°C±5°C, less than 75%RH

DC Voltage Measurement

Range	Resolution	Accuracy	Input Impedance	Overload Protection
400mV	0.1mV	\pm (0.8% Read. +2dgt)	10M Ω	600V DC/AC rms
4V	0.001V	\pm (0.8% Read. +3dgt)		
40V	0.01V			
400V	0.1V			
600V	1V			

AC Voltage Measurement

Range	Resolution	Accuracy	Input Impedance	Overload Protection
4V	0.001V	\pm (1.5% Read. +5dgt)	10M Ω	600V DC/AC rms
40V	0.01V			
400V	0.1V			
600V	1V			

Frequency range: 40-400Hz

DC Current Measurement

Range	Resolution	Accuracy	Voltage drop	Overload Protection
400 μ A	0.1 μ A	\pm (1.0% Read. + 5dgt)	4V	Fast 400mA/250V Fuse
4000 μ A	1 μ A			
40mA	0.01mA	\pm (1.2% Read. + 5dgt)		
400mA	0.1mA			
10A	0.01A	\pm (1.5% Read. + 5dgt)	200mV	Unfused

AC Current Measurement

Range	Resolution	Accuracy	Voltage drop	Overload Protection
400 μ A	0.1 μ A	$\pm(1.0\%$ Read. + 5dgt)	4V	Fast 400mA/250V Fuse
4000 μ A	1 μ A			
40mA	0.01mA	$\pm(1.2\%$ Read. + 5dgt)		
400mA	0.1mA			
10A	0.01A	$\pm(1.5\%$ Read. + 5dgt)	200mV	Unfused

Frequency range: 40-400Hz
Resistance Measurement

Range	Resolution	Accuracy	Open circuit voltage	Overload Protection
400 Ω	0.1 Ω	$\pm(1.0\%$ Read. + 2dgt)	<700mV	250V DC/AC rms <30 sec.
4k Ω	0.001k Ω			
40k Ω	0.01k Ω			
400k Ω	0.1k Ω			
4M Ω	0.001M Ω	$\pm(2.0\%$ Read. + 2dgt)		
40M Ω	0.01M Ω			

Diode Test

Range	Accuracy	Open circuit voltage	Overload Protection
\blacktriangleright	Approx. 0.6mA	Approx. 1.5V	250V DC/AC rms <30 sec.

Continuity Test

Range		Open circuit voltage	Overload Protection
	Buzzer sounds when resistance value < 50 Ω	Approx. 1.5V	250V DC/AC rms <30 sec.
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Capacitance Measurement

Range	Resolution	Accuracy	Overload Protection
4nF	0.001nF	$\pm(4.0\% \text{ Read.} + 25\text{dgt})$	250V DC/AC rms <30 sec.
40nF	0.01nF	$\pm(4.0\% \text{ Read.} + 5\text{dgt})$	
400nF	0.1nF		
4 μ F	0.001 μ F		
40 μ F	0.01 μ F		
100 μ F	0.1 μ F(60sec)		

Frequency Measurement

Range	Resolution	Accuracy	Overload Protection
9.999Hz	0.001Hz	$\pm(1.5\% \text{ Read.} + 5\text{dgt})$ $V_{pp} = 600\text{mV}$	250V DC/AC rms <30 sec.
99.99Hz	0.01Hz		
999.9Hz	0.1Hz		
9.999kHz	0.001kHz		
99.99kHz	0.01kHz		
999.9kHz	0.1kHz		
9.999MHz	0.001MHz		

Duty Cycle Measurement

Range	Resolution	Accuracy	Overload Protection
20 – 80%	0.1%	$\pm(3.5\% \text{ Read.} + 5\text{dgt})$	250V DC/AC rms <30 sec.