

# BS3302 3 3/4 Digits Auto Range High Safety Pen Type Multimeter with LED Display

#### Features:

- 3 3/4 Counts LCD display
- LED Voltage Display
   24V-120V-230V-400V-600V
- DC Voltage 400mV to 600V
- AC Voltage 4V to 600V
- Resistance  $400\Omega$  to  $20M\Omega$
- Frequency 9.999Hz to 99.99kHz
- Duty Cycle 20% to 80%
- Continuity/ Diode test
- Flash Light
- Low Battery Warning
- Auto Power Off
- Data Hold
- CAT III 600V CE-EMC & LVD





Easy to Use



Flash Light



Ideal for Electrical Checking

#### **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 : 2 batteries 1.5V AAA UM4

Dimension : 55 (W) x 600 (H) x 31 (D) mm.

Weight : Approx. 280 g (including batteries).



## **Electrical Specification**

Accuracies are ±(% 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	±(1.0% Read. +5dgt)		
4V	0.001V		$10 \mathrm{M}\Omega$	600V DC/AC rms
40V	0.01V	±(1.0% Read.	1010122	000 V DC/AC IIIIS
400V	0.1V	+3dgt)		
600V	1V			

## **AC Voltage Measurement**

Range	Resolution	Accuracy	Input Impedance	Overload Protection
4V	0.001V	±(1.5% Read.		
40V	0.01V	+5dgt)	10MΩ	600V DC/AC rms
400V	0.1V	±(2.0% Read.	101/122	000 V DC/AC IIIIS
600V	1V	+5dgt)		

Frequency range: 40-400Hz



#### **LED Indicators**

At the top of the instrutment, there are six LEDs which will be turned on according to the following conditions.

LED - ON	Condition		
24V (+)	DC	9V or above	
24 <b>v</b> (+)	AC	9V or above	
24V (-)	DC	9V or above	
24 <b>v</b> (-)	AC	9V or above	
120V	AC	90V or above	
120 <b>v</b>	DC	90V or above	
230V	AC	160V or above	
230 <b>v</b>	DC	270V or above	
40017	AC	350V or above	
400V	DC	470V or above	
600V	AC	540V or above	
000 <b>v</b>	DC	740V or above	

#### **Resistance Measurement**

Range	Resolution	Accuracy	Open circuit voltage	Overload Protection
$400\Omega$	0.1Ω			
$4k\Omega$	0.001kΩ	±(1.2% Read. +		
40kΩ	0.01kΩ	5dgt)		
400kΩ	0.1kΩ		<700mV	250V DC/AC rms
$4\mathrm{M}\Omega$	$0.001 \mathrm{M}\Omega$	±(1.5% Read. +	\700III <b>v</b>	<30 sec.
41V122	0.001ML2	5dgt)		
$40 \mathrm{M}\Omega$	0.01140	±(2.5% Read. +		
4010122	$0.01 \mathrm{M}\Omega$	5dgt)		

#### **Diode Test**

Range	Accuracy	Open circuit voltage	Overload Protection
	Approx. 0.2mA	Approx. 250V	250V DC/AC rms
	Approx. 0.2mA	1.5V	<30 sec.



### **Continuity Test**

Range	Buzzer sounds when resistance	Open circuit voltage	<b>Overload Protection</b>
•1))	value $< 100\Omega$	Approx.	250V DC/AC rms <30 sec.

#### **Frequency Measurement**

Range	Resolution	Accuracy	<b>Overload Protection</b>
9.999Hz	0.001Hz		
99.99Hz	0.01Hz		
999.9Hz	0.1Hz		600V DC/AC rms
9.999kHz	0.001kHz	±(2.5% Read. + 5dgt)	<30 sec.
99.99kHz	0.01kHz		<30 sec.
999.9kHz	0.1kHz		
9.999MHz	0.001MHz		

Note: Never exceed voltage limits listed below (Voltage Limits for Frequency and Duty Cycle)

#### **Duty Cycle Measurement**

Range	Resolution	Accuracy	<b>Overload Protection</b>	
20 – 80%	0.10/	1(2.50/ Dood + 5dot)	600V DC/AC rms	
	0.1%	±(3.5% Read. + 5dgt)	<30 sec.	

Note: Never exceed voltage limits listed below (Voltage Limits for Frequency and Duty Cycle)

#### **Voltage Limits for Frequency and Duty Cycle**

Working voltage	Frequency	
$V_{MIN} \ge 1.5Vp-p$	40 – 400Hz	
$V_{MAX} \le 400 Vrms$	40 – 4001IZ	
$V_{MIN} \geq 1.5 Vp-p$	400 – 900Hz	
$V_{MAX} \leq 10Vp-p$	400 – 700112	
$V_{MIN} \geq 3.0Vp-p$	900Hz – 10kHz	
$V_{MAX} \leq 5Vp-p$	7001IZ – TUNIIZ	

CALTEK INDUSTRIAL (HONG KONG) LIMITED www.bstcaltek.com

<u>Hong Kong Office</u> Address:Unit 11 10/F, Kwai Cheong Center,50 Kwai Cheong Road , Kwai Chung, N.T., Hong Kong Email: caltek@caltek.com.hk Tel: (852) 2401-1222 Fax: (852) 2420-3472

<u>Singapore Office</u> Level 15, Suite 27, Prudential Tower, 30 Cecil Street, Singapore 049712

Email: caltek\_sg@caltek.com.hk Tel: (65) 6232-2903 Fax: (65) 6232-2888