

**Multimeters**
**Digital Multimeters / Bench type Multimeters / AC milivolt meters**
**Digital Multimeter XB 30**

- Display : 3-1/2 Digits 1999 Counts LCD
- DC Voltage : 0-200mV/2V/20V/200V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 200V / 750V
- Accuracy :  $\pm 1.2\%$
- DC Current : 0 – 200 $\mu$ A / 2mA/ 20mA/ 200mA/ 10A
- Accuracy :  $\pm 1.0\%$
- Resistance : 0 – 200 /2K/20K/200K/2 M Ohms
- Accuracy :  $\pm 1.0\%$
- With Diode Test, Transistor test and Data Hold facility
- Confirms to CE, CAT – III 600V, CAT – II 1000V, IEC 1010-1


**Digital Multimeter XB 33C**

- Auto – Ranging
- Auto Power Off
- Display : 3-1/2 Digits 1999 Counts backlit LCD
- DC Voltage : 0-200mV/2V/20V/200V/600V.
- Accuracy :  $\pm 0.8\%$
- AC Voltage : 0 – 200V / 2V/20V/200V/600V
- Accuracy :  $\pm 1.0\%$
- DC Current : 0 – 200 $\mu$ A / 2mA/20mA/200mA/10A
- Accuracy :  $\pm 1.0\%$
- AC Current : 0 – 200 $\mu$ A / 2mA/20mA/200mA/10A
- Accuracy :  $\pm 1.8\%$
- Resistance : 0 – 200 /2K/20K/200K/2M/20M Ohms
- Accuracy :  $\pm 0.8\%$
- Temperature : -40°C to 1000°C -40°F to 1832°F
- Accuracy :  $\pm 1.0\%$
- With Diode Test, audible continuity test & Data Hold facility
- Confirms to CE, CAT – III 600V


**Digital Multimeter XB 31 / XB 31C**

- Display : 3-1/2 Digits 1999 Counts LCD
- DC Voltage : 0-200mV/2V/20V/200V/600V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 200V / 600V
- Accuracy :  $\pm 1.2\%$
- DC Current : 0 – 200mA /10A(for XB-31C)  
: 0-200 $\mu$ A/2mA/20mA/200mA/10A (for XB – 31)
- Accuracy :  $\pm 1.0\%$
- Resistance : 0 – 200 /2k/20k/200k/20M Ohms
- Accuracy :  $\pm 0.8\%$
- Transistor Test Facility (For XB – 31 only)
- Temperature : -20°C to 750 °C / -4 °F to 1400 °F
- Accuracy :  $\pm 1.0\%$  (for XB – 31C only)
- Battery Test : 1.5V / 9V (for XB – 31C only)
- With Diode Test, Continuity test and Data Hold facility
- Confirms to CE, CAT – II 600V


**Digital Multimeter 603**

- Auto Power Off
- Data Hold to freeze the displayed reading
- Display : 3-1/2 Digits 1999 Counts Backlit Extra Large LCD
- DC Voltage : 0-200mV/2V/20V/200V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 2V /20V/200V/750V
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 20mA /200mA/20A
- Accuracy :  $\pm 0.8\%$
- AC Current : 0 – 20mA /200A/20A
- Accuracy :  $\pm 1.0\%$
- Resistance : 0 – 200 /2k/20k/200k/2M/200M Ohms
- Accuracy :  $\pm 0.8\%$
- Capacitance : 0-20nF / 2 $\mu$ F/200 $\mu$ F
- Accuracy :  $\pm 2.5\%$
- Temperature : -40°C to 1000 °C
- Accuracy :  $\pm 0.8\%$
- Frequency : 0 – 2k/200kHz
- Accuracy :  $\pm 3.0\%$
- With Diode Test, Transistor Test, Hot Wire Test and Audible Continuity test facility
- Confirms to : IEC1010 CE, CAT II 1000V


**Digital Multimeter XB 32**

- Auto Power Off
- Display : 3-1/2 Digits 1999 Counts LCD
- DC Voltage : 0-200mV/2V/20V/200V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 2V / 20V/200V/750V
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 200 $\mu$ A /2mA/20mA/200mA/10A
- Accuracy :  $\pm 0.8\%$
- AC Current : 0 – 2mA /20mA/200mA/10A
- Accuracy :  $\pm 1.2\%$
- Resistance : 0 – 200 /2k/20k/200k/2m/20m. Ohms
- Accuracy :  $\pm 1.0\%$
- With Diode Test, Transistor test and audible continuity
- Confirms to CE, CAT – III 600V, CAT – II 1000V, IEC 1010-1


**Digital Multimeter 19**

- Data Hold to freeze the displayed data
- Auto Power Off
- Relative Measurement facility
- Display : 3-3/4 Digits 3999 Counts LCD
- DC Voltage : 0-400mV/4V/40V/400V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 400mV /4V/40V/400V/750V
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/10A
- Accuracy :  $\pm 1.0\%$
- AC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/10A
- Accuracy :  $\pm 1.5\%$
- Resistance : 0 – 400 /4k/40k/400k/4M/40M Ohms
- Accuracy :  $\pm 0.8\%$
- Capacitance : 0-4nF / 40nF/400nF/4 $\mu$ F/40 $\mu$ F/200 $\mu$ F
- Accuracy :  $\pm 2.5\%$
- Frequency : 0 – 100 /1000/10k/100k/1m/30MHz
- Accuracy :  $\pm 0.5\%$
- Temperature : -40°C to 1000 °C
- Accuracy :  $\pm 0.8\%$
- Duty cycle, Diode test, transistor test and audible continuity test
- Confirms to CE, EMC / LVD, IEC1010.



**Multimeters**
**SAFE SERIES 15**

- Peak Hold, Relative Measuring Facility,
- MAX /MIN Recording, Auto Power OFF
- Display : 3-3/4 Digits 3999 Counts Backlit LCD with analog bargraph
- DC Voltage : 0-400mV/4V/40V/400V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 400mV /4V/40V/400V/1000V
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A
- Accuracy :  $\pm 1.2\%$
- AC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A
- Accuracy :  $\pm 1.5\%$
- Resistance : 0 – 400 /4k/40k/400k/4M/40M Ohms
- Accuracy :  $\pm 0.8\%$
- Capacitance : 0-4nF / 40nF/400nF/4 $\mu$ F/40 $\mu$ F/400 $\mu$ F/4mF/40mF
- Accuracy :  $\pm 3.0\%$
- Frequency : 0-4kHz/40kHz/4MHz/40MHz
- Accuracy :  $\pm 1.2\%$
- Temperature : - 40 °C to 760 °C / - 4 °F to 1400 °F
- Accuracy :  $\pm 3\%$
- Diode Test and audible continuity test
- Confirm to CAT –III 1000V, CAT IV 600V, EN61010-1, CE.


**SAFE SERIES 16**

- T – RMS measurement, Peak Hold, Relative Measuring Facility, MAX /MIN Recording, Auto Power OFF
- Display : 3-3/4 Digits 3999 Counts Backlit LCD With analog bargraph
- DC Voltage : 0-400mV/4V/40V/400V/1000V.
- Accuracy :  $\pm 0.5\%$
- AC Voltage : 0 – 400mV /4V/40V/400V/1000V T-RMS
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A
- Accuracy :  $\pm 1.2\%$
- AC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A T-RMS
- Accuracy :  $\pm 1.5\%$
- Resistance : 0 – 400 /4k/40k/400k/4M/40M Ohms
- Accuracy :  $\pm 0.8\%$
- Capacitance : 0-4nF/40nF/400nF/4 $\mu$ F/40 $\mu$ F/400 $\mu$ F/4mF/40mF
- Accuracy :  $\pm 3.0\%$
- Frequency : 0-4kHz/40kHz/4MHz/40MHz
- Accuracy :  $\pm 1.2\%$
- Temperature : - 40 °C to 760 °C / - 4 °F to 1400 °F
- Accuracy :  $\pm 3\%$
- Diode Test and audible continuity test
- Confirm to CAT –III 1000V, CAT IV 600V, EN61010-1, CE.


**DIGITAL MULTIMETER - 454**

- T – RMS measurement, for AC and AC + DC, Data Hold
- Auto Power OFF
- Display : 4-1/2 Digits 19999 Counts LCD
- DC Voltage : 0-200mV/2V/20V/200V/1000V.
- Accuracy :  $\pm 0.05\%$
- AC Voltage : 0 – 200mV/2V/20V/200V/750V
- Accuracy :  $\pm 1.0\%$
- DC Current : 0 – 200 $\mu$ A /2mA/20mA/200mA/20A
- Accuracy :  $\pm 0.5\%$
- AC Current : 0 – 200 $\mu$ A /2mA/20mA/200mA/20A
- Accuracy :  $\pm 1.2\%$
- Resistance : 0 – 200 /2k/20k/200k/2M/20M Ohms
- Accuracy :  $\pm 0.25\%$
- Frequency : 0-2k/20k/200kHz
- Accuracy :  $\pm 0.5\%$
- Duty Cycle : 0-99.9%
- Accuracy :  $\pm 0.1\%$
- Diode Test, Logic Test and audible continuity test


**SAFE SERIES 18**

- T – RMS measurement, Relative measurement, Data Hold and Peak Hold Facility, MAX /MIN Recording facility,
- Auto Power OFF
- Display : 4-3/4 Digits 39999 Counts Backlit LCD with analog bargraph
- DC Voltage : 0-400mV/4V/40V/400V/1000V.
- Accuracy :  $\pm 0.06\%$
- AC Voltage : 0 – 400mV /4V/40V/400V/1000V T-RMS
- Accuracy :  $\pm 1.0\%$
- DC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A
- Accuracy :  $\pm 1.0\%$
- AC Current : 0 – 400 $\mu$ A /4000 $\mu$ A/40mA/400mA/20A T-RMS
- Accuracy :  $\pm 1.5\%$
- Resistance : 0 – 400 /4k/40k/400k/4M/40M Ohms
- Accuracy :  $\pm 0.3\%$
- Capacitance : 0-40nF / 400nF/4 $\mu$ F/40 $\mu$ F/400 $\mu$ F/4mF/40mF
- Accuracy :  $\pm 3.5\%$
- Frequency : 0-40Hz/400Hz/4kHz/40kHz/400kHz/4MHz/40MHz/100MHz
- Accuracy :  $\pm 0.1\%$
- Duty Cycle : 0.1% - 99.9%
- Accuracy :  $\pm 1.2\%$
- Temperature : - 50 °C to 1000 °C / - 58 °F to 1832 °F
- Accuracy :  $\pm 3\%$ , 4 – 20mA = 0 – 100%
- Infra Red Non Contact temperature measuring range : -30 °C to 500 °C/22 °F to 1022 °F
- Diode Test and audible continuity test
- Confirm to CAT –III 1000V, CAT IV 600V, EN61010-1, CE.


**23S mkII**

- Data Hold
- Auto Power Off
- Display : 4-1/2 Digits 19999 Counts Backlit LCD
- DC Voltage : 0-200mV/2V/20V/200V/1000V.
- Accuracy :  $\pm 0.1\%$
- AC Voltage : 0 – 2V /20V/200V/750V
- Accuracy :  $\pm 0.8\%$
- DC Current : 0 – 200 $\mu$ A /2mA/20mA/200mA/20A
- Accuracy :  $\pm 0.5\%$
- AC Current : 0 – 20mA /200mA/20A
- Accuracy :  $\pm 1.5\%$
- Resistance : 0 – 200 /2k/20k/200k/2M/200M Ohms
- Accuracy :  $\pm 0.4\%$
- Capacitance : 0-20nF /2 $\mu$ F/200 $\mu$ F
- Accuracy :  $\pm 3.5\%$
- Frequency : 0-20k/200kHz
- Accuracy :  $\pm 3.0\%$
- Temperature : - 40 °C ~+1000 °C
- Accuracy :  $\pm 0.8\%$
- Diode Test and audible continuity test
- Confirm to IEC1010-1Standards.



## Multimeters

### DIGITAL MULTIMETER-97

#### Features:

- 3 1/2 Digital Multimeter
- 4000 Counts
- Large LCD Display with Auto/ Manual Range
- No Power-OFF under natural operation
- Data Hold, Max. / Min value Hold
- Capacitance, Frequency / Duty cycle, Temperature and Transistor Test

#### Technical Specifications:

- DC Voltage : 0.1mV ~ 1000V
- Accuracy :  $\pm(0.5\% + 4 \text{ digit})$
- AC Voltage : 0.1mV ~ 750V
- Accuracy :  $\pm(0.8\% + 6 \text{ digit})$
- DC Current : 0.1 $\mu$ A ~ 20A
- Accuracy :  $\pm(1.0\% + 5 \text{ digit})$
- AC Current : 0.1 $\mu$ A ~ 20A
- Accuracy :  $\pm(1.5\% + 5 \text{ digit})$
- Resistance : 0.1 $\Omega$  ~ 40M $\Omega$
- Accuracy :  $\pm(0.8\% + 2 \text{ digit})$
- Capacitance : 10pF ~ 200 $\mu$ F
- Accuracy :  $\pm(3.5\% + 8 \text{ digit})$
- Frequency : 0.1Hz ~ 30MHz
- Accuracy :  $\pm(0.5\% + 4 \text{ digit})$
- Celsius : -40°C to 1000°C
- Accuracy :  $\pm(0.8\% + 4 \text{ digit})$
- hhFE (NPN / PNP) : 0 ~ 1000



#### Special Functions

- Diode test : ✓
- Transistor testing : ✓
- Continuity Buzzer : Lower 30 $\Omega$   $\pm$  10 $\Omega$
- Low Battery display : Lower 2.4V
- Auto Power OFF : Approx. 30 min.
- Function Protection : ✓
- Input Impedance : 10M $\Omega$
- Sampling Rate : 3 times per second
- AC Frequency Response : 40 ~ 400 Hz
- Power : F3V AAA

#### Standard Accessories

- Test Leads, Holster, Manual, Temperature Probe Bead type
- Dimensions (mm) : 185 (H) x 93 (W) x 35 (D)

### BENCH TYPE MULTIMETER 45 – T – RMS

- High Performance Bench type Digital Multimeter
- It is a T-RMS Multimeter
- AC Frequency response : 50 kHz
- Display : 4-1/2 Digits 19999 Counts LCD
- DC Voltage : 0 ~ 200mV/2V/20V/200V/1000V
- Accuracy : 0.05%
- AC Voltage : 0-200mV/2/20/200/750V
- Accuracy : 0.8%
- DC Current : 0-20/200mA/2/20A
- Accuracy :  $\pm 0.35\%$
- AC Current : 0-200mA/2/20A
- Accuracy :  $\pm 0.8\%$
- Resistance : 0-200/2k/200k/2M/20M Ohms
- Accuracy :  $\pm 0.1\%$
- Capacitance : 0-20n/2 $\mu$ /200 $\mu$ F
- Accuracy :  $\pm 3.5\%$
- Frequency : 0-20k/200kHz
- Accuracy :  $\pm 1.0\%$
- Transistor Test, Diode Test and Audible Continuity



### BENCH TYPE MULTIMETER 55 T- RMS

- 12 different measurement functions : DCV/ACV, DCI/ACI,  $\Omega$ 2W/  $\Omega$ 4W, frequency/period, diode test, continuity, dB/dBm, etc
- 5-1/2 Digits Maximum reading of 120,000 digits High Brightness Vacuum Fluorescent Display
- DCV measurement accuracy up to 0.01%, resolution 1 $\mu$ V DCV
- True-rms AC Voltage and current measurement, with high frequency of 100KHz
- Maximum measurement rate : 45 times/second
- Equal accuracy frequency measurement more than 1MHz, minimum resolution of 10 $\mu$ Hz
- Good reading stability, high accuracy and high measurement rate
- Zeroing (RFL) mode to eliminate residual reading
- 2W and 4W resistance measurement modes selectable
- Built-in mathematics calculation functions : mX+b, %, dB, dBm, REL
- 512 readings storage and MAX/MIN/AVER/STD statistics
- HI/IN/LO comparator function
- GPIO and RS – 232 interfaces for convenient system communication
- Calibration performed without opening the cover
- 10 sets of measurement states saved and recalled up
- DC Voltage : 0 - 100mV/1/10/100/1000V
- Accuracy :  $\pm 0.01\%$
- AC Voltage : 0 - 100mV/1/10/100/750V
- Accuracy :  $\pm 0.1\%$
- DC Current : 0-10m/100/1/10A
- Accuracy :  $\pm 0.5\%$
- AC Current : 0-10m/1/10A
- Accuracy :  $\pm 0.25\%$
- Resistance : 0-100/1k/10k/100k/1M/10M/100M Ohms
- Accuracy :  $\pm 0.03\%$
- Frequency : 5-1MHz
- Accuracy :  $\pm 0.005\%$
- test facility



### BENCH TYPE MULTIMETER M - 3500

- Most Stable bench top 6-1/2 Digits T – RMS Digital Multimeter
- Has high accuracy and has USB PC Interface facility.
- High sampling rate and data rate of 2000 readings/sec
- AC measurement range 3Hz to 300kHz
- Two Wire and Four Wire Resistance measurement
- Period, temperature measurements
- It can store up to 2000 readings in data memory
- 11 measurements and 8 math function
- Display : unique 5x 7 dot matrix VFD
- Dual displays with three co annunciators
- DC Voltage : 0-100mV/1/10/100/1000V
- Accuracy :  $\pm 0.003\%$
- AC Voltage : 0-100mV/1/10/100/750V
- Accuracy :  $\pm 0.04\%$
- DC Current : 10m/100m/1/3A
- Accuracy :  $\pm 0.005\%$
- AC Current : 0-1m/3A
- Accuracy :  $\pm 0.3\%$
- Resistance : 0-100/1k/10k/100k/1m/10M/100M Ohms
- Accuracy :  $\pm 0.003\%$
- Diode and continuity test
- Limit, Ratio MX+B, %, dBm, dB, Min/Max, Null functions
- Trigger function available
- Thermal measurement functions supports two types of measurements, Thermocouple and RTDs
- For thermocouples E, J, K, N, R, S and T types can be used
- Multi-Point Scan option can be used that supports up to 10 Channels (optional)
- Free Mat Lab & Labview applications that allows user to do a variety of tasks
- Also features the PT-Tool that can acquire data directly from the measurement into MS Word and Excel even without MS Word or Excel. User can chose PT-Link which is stand-alone application.



## Multimeters

MODEL	YB2172B	YB2173B
Parameters		
Voltage range	30μV~300V	
Frequency range	10Hz~2MHz	
Resolution	1μV	
Voltage steps.	6 steps 3mV~300V	
Voltage error	±0.5%±2 digital(1kHz )	
Max input voltage (DC + AC p-p)	300V @3mV~300mV	
	500V @3V~300V	
Input impedance	≥10MΩ	
Input capacity	≤35pF	
Output voltage	1Vrms±10%	
Frequency response	10Hz~200kHz≤±3%(@1kHz,No loader)	
Power supply	AC 200V±10%;50Hz±4%	
Physical Characteristics		
Dimension	225W×105H×285D(mm)	
Weight	Approx 2.5kg	Approx 3kg



**YB2172B**



**YB2172C**

MODEL	YB2172	YB2173	YB2174
Parameters			
Voltage range	100μV~300V	30μV~100V	1mV~10V
Frequency	5Hz~2MHz		10kHz~1000MHz
Gradation	Sine 1V=0dB virtual value; 1mW=0dBm		
Voltage	1mV~300V	300μV~100V	3mV~10V
dB	60dB~+50dB	70dB~+40dB	
Voltage error	≤full graduation ±3%(@1kHz)		≤full graduation ±3%(@100kHz)
Max voltage	300V 1mV~1V	300V 300μV~1V	
DC + AC p-p	500V 3V~300V	50V 3V~100V	≥30kΩ (@100kHz, 30mV upper)
Input impedance	≥10MΩ	≥1MΩ	≤2.5pF
Input capacity	≤50pF		
Output voltage	1Vrms±10%	0.1Vrms±10%	
Output Frequency Response	10Hz~200kHz≤±3%(1kHz, No loader)		
Power Supply	AC 200V±10%;50Hz±4%		
Physical Characteristics			
Dimension	140W×270L×210H(mm)		
Weight	Approx 2.5kg	Approx 3kg	Approx 2.5kg



**YB2172**



**YB2173**



**YB2174**

### CROMTECH INDIA

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