# **METRAVI**<sup>®</sup>

# **Analogue Multimeter**

# 2010BA

### INTRODUCTION

- Measuring and displaying electric quantities in the range of overvoltage category CAT II up to max. 1,000V; CAT III up to max. 500V to ground potential, in accordance with EN 61010-1.
- Measuring alternating and direct voltages of up to 1,000 V Max.
- Measuring alternating and direct currents of up to 10 A Max.
- Measuring resistances of up to 20 MΩ
- Acoustic continuity checks
- Diode tests
- Transistor tests

### **GENERAL SPECIFICATION**

#### **GUARANTEED FOR ONE-YEAR WARRANTY.**

- Over-voltage category : CAT II 1,000V, CAT III 500V to ground potential.
- Standard Environment : 23°C±3°C, less than 75% RH.
- Temperature Ranges: 0°C to 40°C, 32°F to 104°F for Operating condition. -10°C to 50°C, 14°F to 122°F for Storage condition.
- Humidity Scope : Operating condition less than 90% RH. Storage condition: less than 80% RH.
- Operating altitude : Max. 2,000 m
- Size: 160(W)x 105(D)x 40(H) MM including Holster
- Weight: 460g approx. (including batteries & Holster)

#### ACCESSORIES :

One set of CAT III 600V/10A class Test Leads; Safety ceramic-tube Fuse 0.5A/500V 1pc on PCBA; Safety ceramic-tube Fuse 10A/500V 1pc on PCBA



## THE QUALITY LEADER

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





### **RANGE SPECIFICATIONS & TOLERANCE LIST:**

Functions	Range	Accuracy	Remarks
DC V	0-0.1-0.5-2.5-10-50-250V-1000V	± 3% of FSD. ± 4% of FSD. at 0.1Vrange	IInput Impendence: 20KΩ/V Overload Protection: Max. 1000V AC/DC BUT Range 0.1V/0.5V: Max. 250V
AC V	0-0.1-0.5-2.5-10-50-250V-1000V	± 4% of FSD. ± 5% of FSD. at 0.1Vrange Band width: 40 ~ 2K Hz NOTE #1	Input Impendence: 20KΩ/V Overload Protection: Max. 1000Vrms AC/DC. BUT Ranges<10V: Max. 250V
DC A	0-0.05-0.25-2.5-25-250mA,10A	± 3% of FSD. ± 4% of FSD. For 10A range NOTE #2	Drop Voltage: 50 mV Overload protected by two Fuses 0.5A at mA ranges, and 10A at 10A range.
AC A	0-0.05-0.25-2.5-25-250mA,10A	± 4% of FSD. Band width: 40 ~ 2,000 Hz NOTE #1 & #2	Drop Voltage: 50 mV Overload protected by two Fuses 0.5A at mA ranges, and 10A at 10A range.
Ω	X 1: 0.2 ~ 2KΩ Midscale at 20Ω X 10: 2 ~ 20KΩ Midscale at 200Ω X 100: 20 ~ 200KΩ Midscale at 2000Ω X1K: 200~ 2MΩ Midscale at 20KΩ X10K: 2K ~ 20MΩ Midscale at 200KΩ	± 3% of ARC (Scale Length)	Overload protected by the Oxide Varactor & Fuse. The Input Voltage limit: Min.50V, Max. 250Vrms AC/DC.
BATT Check	0 ~ 1.5V: GOOD - ? – BAD 0 ~ 9V: GOOD - ? – BAD	± 5% of ARC of Scale Length	Load Current: 270mA for 1.5V 25mA for 9V
Transistor Check	hFE: 0-1000 via jacks and test leads	Not Specified	At Ω X 10 Range
Diode Check	IF, IR, LI, LV	Not Specified Note#3	At Ω X 10 Range
Continuity Check	Beeper sounding	< 200 Ohm	Overload protected by Oxide Varactor. Input Voltage Limit: Min. 50V, Max.250V AC/DC(5s).
POWER Supply	Internal Battery: R6P, AA, 1.5V 2pcs, 6F22, NEDA1604, 9V 1pc		

Note#1 : The extra indication error will occur as per the waveforms of measured ACV/ACA other than the sine wave. Its readings of rms value may be lower or higher than the actual root-mean-square value.

Note#2 : For 10A range, the big current loaded max. 1min. with 5 min pause for next testing.

Note#3 : For Diode test, Max. 15 µA in the x10k range; and Max. 0.15 mA in the x1k range; and Max. 15 mA in the x10 range; and Max. 150 mA in the x1 range.

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