

# i-12

## Digital Insulation Tester

### Smart Safe Strong



EMPOWERING  
MEASUREMENT

#### SMART features

- NO-GO test facility.
- Pre selectable Timer facility, Mains Eliminator.
- Selectable voltage facility 50,100,250,500 &1000V.
- Insulation resistance range up to 2 G $\Omega$
- Auto AC/DC 600V measurement.
- Live circuit detection up to 600V AC/DC.
- Low resistance measurement up to 100 $\Omega$  with continuity testing.
- Temporary storage of 10 readings.
- Auto power off facility.

#### SAFE

- CE mark conforming to latest EN 61010-1:2010
- EN 61326-1:2005, CAT IV 600V, IP54 protection
- Overload protection 1200V for all ranges
- Guard Terminal to minimize surface leakage

#### STRONG

- Robust and Rugged Polycarbonate casing.

#### FEATURES & BENEFITS

- 3½ digits LCD with analog pointer scale for insulation measurement.
- Insulation Resistance Measurement from 10K $\Omega$  to 2G $\Omega$ .
- User Selectable Backlit display.
- Hands free continuity testing.
- Low resistance measurement.
- Pre-selectable timer facility for insulation measurement.
- Checking of MIN/MAX values.
- Low Battery indication.
- Lead resistance nullification for low resistance measurement.
- Short Circuit current : < 2 mA



# TECHNICAL SPECIFICATION

Measurement Function	Range	Resolution	Accuracy ± (% reading + dgt)	Overload Protection
Insulation	0.01 MΩ to 0.99 MΩ	10 KΩ (0.01 MΩ)	± (3% + 2)	1200 V rms 10 Sec.
Resistance MΩ <sup>1</sup> . (50 V, 100V)	≥ 1.0 MΩ to 99.9 MΩ	100 KΩ (0.1 MΩ)	± (5% + 2)	
	≥ 100 MΩ to 999 MΩ	1MΩ	± (10% + 5)	
Insulation	0.01 MΩ to 9.99 MΩ	10 KΩ (0.01 MΩ)	± (5% + 2)	
Resistance MΩ/GΩ <sup>1</sup> (250 V, 500V,1000V)	≥ 10 MΩ to 99.9 MΩ	100KΩ (0.1 MΩ)	± (5% + 2)	
	≥ 100 MΩ to 999 MΩ	1 MΩ	± (10% + 5)	
Low Ohms <sup>2</sup> (Ω)	0 - 9.99Ω	0.01Ω at 100 mA	± (3% + 2)	
	≥ 10Ω to 99.9Ω	0. 1Ω at 10 mA	± (5% + 2)	
Continuity (▲))	0 - 9.99Ω	0.01Ω at 100 mA	± (3% + 2)	
V AC/DC	≥ 25V - 450V	1V	± (2% + 3)	
	≥ 450V - 600V	1V	±3%	

<sup>1</sup> For Insulation resistance range,  
Terminal voltage on open circuit (DC) : - 0% to + 30% of rated voltage

<sup>2</sup> For low Ohms/Continuity Ranges  
\*Open circuit voltage : 5V ± 2V d.c.  
\*Lead Resistance compensation : 0 - 9.99Ω

## GENERAL

- Display : 3 ½ digit LCD with backlit
- Analog Display : Logarithmic Scale
- Display : 7 segment digits
- Enclosure Material : Polycarbonate
- Dimensions (WxHxD) : Approx.102 mm x 209 mm x 44mm
- Weight : Approx.600gm. (With battery)

## ENVIRONMENTAL

- Nominal Temp. Range : 0°C to 35°C
- Operating Temp. : -20°C to 40°C (Full Range),  
20°C to 60°C (Up to 100MΩ)
- Storage Temp. : -25°C to 65°C
- Relative Humidity : 90% RH at 40°C max.

Note : For environmental conditions other than specified uncertainty of ± 25 counts should be added to the reading.

## POWER

- Battery : 6 X 1.5V AA Alkaline (IEC LR6 Type)  
(Nickel cadmium rechargeable cells may also be used)

## Mains Eliminator (Optional)

- Input : 230VAC, 50/60Hz
- Output : 12 VDC, 1000mA

## SAFETY

### CE Certifications

- Directives for CE Certification : LVD:2006/95/EC.,  
EMC: 2004/104/EC
- Measurement Category : CAT III 1000V/CAT IV 600V  
Reinforced insulation
- Relevant Standard Specifications : EN61010-1:2010,  
EN61326-1:2005
- IP Rating : IP 54  
(Dust & Water Protection)

## STANDARD ACCESSORIES

- Set of test leads of 1m length with Crocodile clips
- Instruction Manual
- Warranty card
- Batteries 6 X 1.5V AA, Alkaline (IEC LR6)
- Fuse (800mA/600V)

## OPTIONAL ACCESSORIES

- Mains Eliminator (12 VDC, 1000mA output)
- Test lead set.

## APPLICATIONS

### Ideal for Insulation Resistance Measurement of

- Electrical Equipment (Motors, Transformers, Machines, etc.)
- Cables for Communication Networks.
- Industrial, Commercial & Residential Installations.
- Electrical Cables for Distribution Networks.
- House Hold Appliances (Washing Machines, Mixer, Toaster, etc.)
- Control Panels.
- Railways applications & Telecom applications.
- Metal Industries applications.

## NOTES

1.The Instrument is accompanied with Test & calibration sheet, 2.Test Facilities can be provided at the factory with the available test set-ups only, 3. The Company's policy is continuous improvement of its products. We therefore reserve the Right of any deviation from illustration or specifications without notice. 4.Stated accuracies are valid from 10% of the range to 95% of the range. 5. Accuracy Specified for temperature range of 25°C ± 5°C & 35% RH ± 10%.



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