



# Model 4102 MF

## Insulation & Multifunction Tester



### Features

- Measures Insulation Resistance, voltage (AC-DC) measurements.
- Automatic hold facility.
- Continuity test with a short circuit current of minimum 200mA.
- Energy conservation is feature.
- EnerSave™ limits the test duration to about 10 Seconds to save energy.
- No moving parts.  
All calibration are saved internally in a non volatile memory.
- Easy calibration at any facility around the world.
- Low cost maintenance, calibration, and ownership.
- Complies to all the latest regulations, including UK.



### Specifications

#### Insulation Test

Test voltage (DC V)	250V / 500V / 1000V
Output voltage @ 1mA	Rated test Voltage +10% Max
Measuring ranges	0.2M~2G / 0.2M-4G / 0.2M-8GΩ
Accuracy	0.2M~4GΩ : ±3%rdg 4GΩ~8GΩ : ±5%rdg
When voltage is constant, Current is limited at	1.2mA
Short circuit current	4mA Max.

#### Continuity Test

Measuring ranges	0.01-1999Ω
Accuracy	0.01-100Ω : ±1.0%rdg 100-300Ω : ±1.5%rdg 300-1999Ω : ±2.0%rdg
Short circuit current	>220mA
Open circuit voltage	5V dc
Resolution	±2 counts

#### Voltmeter

AC voltage (Auto)	0-700V
DC voltage (Auto)	0-950V
Accuracy	±1.5% rdg
Resolution	±1V

#### Protections

Over load	700V (between all terminals)
Over voltage	Class III-700V towards ground
Fuse	500mA 250V, (5 × 20mm), HBC, Fast Blow

#### MOV Test & GAS Arrester Test

Test voltage	5-1020Vdc
Voltage result accuracy	±3% rdg
Voltage result resolution	±2 counts

#### General

Display	2 lines × 16 characters LCD
Auto-null threshold	5Ω
Buzzer threshold	3Ω
Fast test	10Sec
Long test	60Sec
With PI and DAR test function	10Min
Load battery test current	About 300mA
Operating temperature	0°C to 40°C not in full sun
Storage temperature	-10°C to 50°C
Dimensions	250(L) × 190(W) × 110(D)mm
Weight (battery included)	Approx 1460g.
Power source	1.5V(AA) × 8

#### Accessories

- Instruction manual
- Test leads
- Shoulder belt
- Batteries



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### Features Comparison

	4101 IN	4102 MF
Digital EE Calibration (No Potentiometers)	•	•
Keypad Operation	•	•
Automatic Voltmeter AC/DC at Start/Reset	•	•
ON-Reset/Restart Key	•	•
Off Push Button (press more than 5 Sec on 1kV key)	•	•
Auto-off	•	•
Test ON-OFF	•	•
Polarization Index (PI) on 250, 500 and 1000V	•	•
Dielectric Absorption Ratio (DAR) on 250, 500 and 1000V	•	•
Battery Test	Test Battery at Start	Test Battery at Start
Battery Test at Switch ON / Reset	•	•
Voltmeter on request by Keypad	Automatic	Automatic
Safety Voltmeter before each Test	•	•
Auto-Discharge on all Test and all Ranges	•	•
Continuity Short Circuit Current > 220mA (225mA Typical)	•	•
Continuity Open Circuit Voltage of 5V dc	•	•
Nominal Voltage @ 1mA on all Insulation Ranges	•	•
Buzzer ON/OFF	Always ON	Always ON
Leads Auto-Null key	•	•
Test Auto-Stop	•	•
Re-programmable Microprocessor for Easy Updates	•	•
Can be calibrated in ALL calibration laboratories	•	•
Insulation measurement from 2kΩ (250V range) to 8GΩ (1kV Range)	•	•
Continuity from 0.01Ω (220mA) to 1999Ω	•	•
DC Voltmeter from ± 1Vdc to ±950Vdc	•	•
AC Voltmeter from 1 Vac to 700 Vac	•	•
Accept 8 Rechargeable Batteries or Alkaline or normal	•	•
Smart Hold & Stop on Voltmeter ac / dc	•	•
MOV / Protection Devices Test		•
Gas Arrester Function		•
Ener Save™	•	•