

Insulation Analyzers

1 kV DC-15 kV DC

Design Features

- Microprocessor-controlled
- Rechargeable battery
- Auto-range
- External Noise rejection
- IEC compliant

- Perform **multiple** testing **functions**
- **Simple** set-up and **operation**
- **Reliable** and **accurate measurements** in the laboratory or in the field



Model PM1A



Model PM5A2 and PM10A



Model PM15-4A

Testing Applications

Model PM1A

- Insulation Resistance testing up to 200 GΩ
- Pass / Fail test
- Low Resistance and Continuity measurement
- AC/DC Voltmeter up to 600 V True RMS
- Automatic Polarization Index

Model PM5A2 and PM10A

- Insulation Resistance testing up to 5 TΩ (PM5A2) or up to 10 TΩ (PM10A)
- AC/DC Voltmeter up to 1000 V (PM5A2) or 600 V (PM10A) True RMS
- Pass / Fail test
- Automated tests:
 - Absorption Index
 - Polarization Index
 - Capacitance
 - Leakage Current
 - Step Voltage

Model PM15-4A

- Insulation Resistance testing up to 15 TΩ
- Automated tests:
 - Dielectric Absorption Ratio
 - Polarization Index
 - Capacitance
 - Insulation Resistance
 - Step Voltage



MODEL	PM1A	PM5A2	PM10A	PM15-4A
TEST VOLTAGES	250 V - 500 V - 1000 V DC, negative	500 V – 1 kV - 2.5 kV – 5 kV directly, one button selectable 500 V to 5 kV in 25 V, 100 V or 500 V steps DC, negative	500 V – 1 kV - 5 kV – 10 kV directly, one button selectable 500 V to 10 kV in 25 V, 100 V or 500 V steps DC, negative	0-15 kV, keypad, operator selectable 100 V to 15 kV in 10 V steps DC, negative
Accuracy	-0 /+15% for resistances between 10 MΩ and open circuit	±3% of nominal test voltages on 10 GΩ	±3% of nominal test voltages on 10 GΩ	±0.8% of Reading, ±0.2% of range, > 100 VDC
RESISTANCE MEASUREMENT	10 kΩ to 200 GΩ	maximum 5 TΩ @ 5 kV	maximum 10 TΩ @ 10 kV	125 kΩ to 15 TΩ
Accuracy	±5% of reading ±2 digits			±5% of Reading up to 2 TΩ ±20% of Reading up to 15 TΩ
LEAKAGE CURRENT MEASUREMENT	maximum 1.5 mA	maximum 3 mA	maximum 1.5 mA	maximum 4 mA
Accuracy	±0.3 mA	±(10% of reading + 3 digits)	±(10% of reading + 3 digits)	±0.8% of reading, ±0.2% of range
CAPACITANCE MEASUREMENT	N/A	50 nF up to 10 μF @ 500 V 50 nF up to 5 μF @ 1000 V 30 nF up to 2 μF @ 2500 V 30 nF up to 1 μF @ 5000 V	50 nF up to 10 μF @ 500 V 50 nF up to 5 μF @ 1000 V 30 nF up to 2 μF @ 2500 V 30 nF up to 1 μF @ 5000 V 30 nF up to 680 nF @ 10,000 V	6 nF up to 100 μF @ 5000 V
Accuracy		±10% of reading ± 3 digits	±10% of reading ± 3 digits	±5% of reading ± 5 nF
LOW RESISTANCE MEASUREMENT & CONTINUITY TESTER	0.05 Ω to 150 Ω	N/A	N/A	N/A
Accuracy	±5% of reading ±2 digits up to 200 mA			
Test Current	Activates at R <5 Ω ±0.5 Ω			
Continuity indicator				
BUILT-IN TIMER	up to 15 minutes	up to 90 minutes	up to 90 minutes	adjustable up to 60 minutes
EXTERNAL VOLTAGE METERING	0-600 V AC/DC	10-1000 V AC/DC	15-600 V AC/DC	N/A
Accuracy	±3% of reading ±2 digits	±(5% of reading +3 digits)	±(5% of reading +3 digits)	
Protection	CAT. III - 600 V	CAT. III - 600 V	CAT. III - 600 V	
INPUT	Internal Rechargeable Battery	Internal Rechargeable Battery	Internal Rechargeable Battery	Internal Rechargeable Battery or Input Power Cord 100-240 VAC, 50/60 Hz
BASIC ACCURACY	R ≤50 GΩ ±5% of reading ±2 digits R >50 GΩ ±10% of reading ±2 digits	±5% of reading 1 MΩ to 1 TΩ @ 5 kV ±20% of reading 1 TΩ to 5 TΩ @ 5 kV (for lower test voltages, the upper limit will be reduced proportionally) ±20% of reading 10 kΩ to 100 kΩ ±10% of reading 10 kΩ to 1 MΩ	±5% of reading 1 MΩ to 1 TΩ @ 10 kV ±20% of reading 1 TΩ to 10 TΩ @ 10 kV (for lower test voltages, the upper limit will be reduced proportionally) ±20% of reading ±5 digits 0 kΩ to 100 kΩ ±10% of reading ±5 digits 100 kΩ to 1 MΩ	±2% of reading

MODEL	PM1A	PM5A2	PM10A	PM15-4A
OPERATING TEMPERATURE	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C	-10°C to 40°C
STORAGE TEMPERATURE	-10°C to 60°C	-25°C to 65°C	-25°C to 65°C	-25°C to 65°C
HUMIDITY	<95%, non-condensing	<95%, non-condensing	<95%, non-condensing	<95%, non-condensing
UNIQUE FEATURES	Hand-held device Guard terminal High voltage and acoustic indicators Hold memory	Digital & bar graph reading 4000 readings memory Automatic discharge of potential USB interface Software for data management Built-in printer Real time clock & calendar	Digital & bar graph reading 4000 readings memory Automatic discharge of potential USB interface Software for data management Built-in printer Real time clock & calendar	Internal discharge device USB interface SD card Built-in printer
DIMENSIONS				
Length	4" (102 mm)	13" (330 mm)	16" (406 mm)	16.5" (419 mm)
Width	7.75" (195 mm)	11.5" (295 mm)	13" (330 mm)	15.25" (387 mm)
Height	1.75" (46 mm)	6" (152 mm)	7" (174 mm)	11.25" (286 mm)
WEIGHT	1 lb (0.5 kgs)	10 lbs (4.3 kgs)	14 lbs (6.3 kgs)	27 lbs (12 kgs)
ACCESSORIES included	2 Measuring test leads 1 Guard test lead 1 Power supply Carrying bag User guide	2 Measuring test leads 1 Guard test lead 1 AC adapter 1 USB cable Protective bag User guide Software	2 Measuring test leads 1 Guard test lead 1 AC adapter 1 USB cable Protective bag User guide Software	1 Input power cable, 3 wire, 7' (2.3 m) 1 Output voltage cable, 10' (3 m) 1 Output return cable, 10' (3 m) 1 Output ground cable, 10' (3 m) User guide



PHENIX Technologies is committed to providing leadership, innovation, technology, quality, and service in all areas of our business.

Our 85,000 square-foot headquarters is a modern manufacturing facility. All aspects of electrical, mechanical, and software design and production are performed in this facility. Our engineers offer a unique blend of theoretical knowledge and practical experience. Our Service and Calibration Department assists customers during and after installation to ensure years of trouble free service.

We carry our commitment into the future as we proudly continue to provide the best in **high voltage, high current, high power test systems and components.**



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