

# Digital multimeter

## MD 9070 Insulation / Continuity Digital Multimeter

NEW



The MD 9070 is a high accuracy insulation and continuity multimeter which may be used in a CAT IV / 600 V environment. It's dual digital display provides all needed data to the operator while it's size ensures that it can be operated single handedly. The instrument is equipped with a built-in VFD feature that makes the instrument capable of measuring true RMS values in accordance with frequency, performing PI/DAR measurements and diode test. The MD 9070 has a wide range of extra features, including data hold, memory, min / max, differential, auto power off, auto-ranging, frequency filter, lock feature, reset, relative function and more.

### MEASURING FUNCTIONS

- TRMS measurement;
- Insulation resistance measurement;
- Earth continuity measurement;
- Resistance measurement;
- Diode test;
- Mains supply frequency measurement.

### KEY FEATURES

- **TRMS** for accurate readings of sinusoidal and non-sinusoidal signals.
- **PI/DAR** feature.
- **VFD** feature makes the instrument capable of measuring the true values in accordance with frequency.

- **Auto-ranging.**
- **Relative zero** for comparing the difference between signals or removing background noise.
- **MAX/MIN/AVG** function.
- **Data Hold** feature freezes the display for later view.
- **CAT IV / 600 V** and CAT III / 1000 V overvoltage protections.
- **Backlight** for working in dark conditions.

### APPLICATION

- Insulation and earth continuity tester for preventive maintenance;
- High level industrial testing;
- High level electronic fault finding;
- Field servicing;
- Heavy duty electrical testing.

### STANDARDS

- CAN/CSA-C22.2 No. 61010-1-12 Ed. 3.0
- EN61326-1:2006
- EN55022
- EN61000-3-2
- EN61000-3-3
- EN61000-4-2
- EN61000-4-3
- EN61000-4-4
- EN61000-4-5
- EN61000-4-6
- EN61000-4-8
- EN61000-4-11
- IEC/UL/EN61010-1 Ed. 3.0
- IEC/EN61010-2-030 Ed. 1.0
- IEC/EN61010-2-033 Ed. 1.0
- IEC/UL/EN61010-031 Ed. 1.1
- IEC/EN61557-1
- IEC/EN61557-2
- IEC/EN61557-4

### Directives

- 2004/108/EC EMC
- 2006/95/EC LVD

## TECHNICAL SPECIFICATION

Function	Range	Accuracy
TRMS AC Voltage (50 Hz ~ 5 kHz)	6.000 V ... 1000 V	From $\pm(1.0\%$ of reading + 3 digits) to $\pm(4.0\%$ of reading + 5 digits)
VFD AC Voltage (10 Hz ~ 440 Hz)	600.0 V	From $\pm(4.0\%$ of reading + 5 digits) to $\pm(7.0\%$ of reading + 5 digits)
DC Voltage	6.000 V ... 1000 V	From $\pm(0.2\%$ of reading + 3 digits) to $\pm(0.3\%$ of reading + 3 digits)
Ohms	600.0 $\Omega$ ... 60.00 M $\Omega$	From $\pm(0.9\%$ of reading + 2 digits) to $\pm(3.0\%$ of reading + 6 digits)
Audible Continuity Tester	between 20 $\Omega$ and 200 $\Omega$	Response time < 30 ms
Diode Tester	2.000 V	$\pm(1.5\%$ of reading + 4 digits)
Earth Continuity Test	0.015 $\Omega$ ... 2.199 $\Omega$ at $I_{test} > 200$ mA 0.15 $\Omega$ ... 21.99 $\Omega$ at $I_{test} > 90$ mA	$\pm(1.5\%$ of reading + 3 digits) $\pm(1.5\%$ of reading + 3 digits)
Hz Line Level Frequency	10 Hz ... 440 Hz; range VFD 600 V 10 Hz ... 20 kHz; range 6 V ... 1000 V	$\pm(0.02\%$ of reading + 4 digits) $\pm(0.02\%$ of reading + 4 digits)
Insulation Resistance	3.000 M $\Omega$ ... 55.0 M $\Omega$ at 50 V 3.000 M $\Omega$ ... 110.0 M $\Omega$ at 100 V 3.000 M $\Omega$ ... 275.0 M $\Omega$ at 250 V 3.000 M $\Omega$ ... 550.0 M $\Omega$ at 500 V 3.000 M $\Omega$ ... 300.0 M $\Omega$ at 1000 V 3000 M $\Omega$ at 1000 V 25.0 G $\Omega$ at 1000 V	$\pm(1.5\%$ of reading + 5 digits) $\pm(1.5\%$ of reading + 5 digits) $\pm(1.5\%$ of reading + 5 digits) $\pm(1.5\%$ of reading + 5 digits) $\pm(1.5\%$ of reading + 5 digits) $\pm(1.5\%$ of reading + 5 digits) $\pm(2.0\%$ of reading + 5 digits) $\pm(10.0\%$ of reading + 5 digits)
Sensing	AC, True RMS.	
Overload Protections	Insulation Resistance: 0.4 A / 1 KV, IR 30 kA or better Earth Continuity Test: 0.25 A / 1 KV, IR 30 kA or better. V: 1100 Vrms. mV, $\Omega$ & Others: 1000 Vrms.	
Power Supply	Four Alkaline AA batteries (IEC LR6).	
Power Consumption	4.5mA typical	
Dimension (L x W x H)	208 x 103 x 64,5 mm with holster.	
Weight	635 g with holster.	

## ORDERING INFORMATION



### Standard set MD 9070

- Multimeter MD 9070 with rubber holster
- Test lead with probe, 2 pcs
- Insulated crocodile clip, 2 pcs
- Insulation/Continuity test lead with probe, 1 pcs
- 1,5 V AA battery (IEC LR6), 4 pcs
- User manual

## OPTIONAL ACCESSORIES

Photo	Order No.	Acc. decription
	AMD 9022	Magnetic Hanging Strap

### METREL D.D.

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Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery.  
Subject to technical change without notice.