This Meter measures AC/DC Voltage, AC/DC Current, Resistance Capacitance, Frequency (Electrical & Electronic), Duty Cycle, Diode Test, Insulation Test, Continuity and Temperature. It can store and record data. It features a waterproof, rugged design for heavy duty use.

DT-9985

TRUE RMS INDUSTRIAL MULTIMETER AND INSULATION RESISTANCE TESTER

Safety Information

Input Protection Limits	
Function	Maximum Input
V DC or V AC	1000VDC/AC rms
mA AC/DC	500mA 1000V fast acting fuse
A AC/DC	10A 1000V fast acting fuse (20A for 30 seconds max every 15 minutes)
Frequency, Resistance, Capacitance, Duty Cycle, Diode Test, Continuity	1000VDC/AC rms
Temperature	1000VDC/AC rms
Surge Protection: 8kV peak per IEC 61010	

AUTORANGING/MANUAL RANGE SELECTION

This automatically selects the best range for the measurements being made and is generally the best mode for most measurements.

MAX/MIN

1. will display and hold the maximum reading and will update only when a new "max" occurs.
2. will display and hold the minimum reading and will update only when a new "min" occurs.

RELATIVE MODE

The relative measurement feature allows to make measurements relative to a stored reference value.

HOLD

The hold function freezes the reading on the display

PEAK HOLD

The Peak Hold function captures the peak AC or DC voltage or current. The meter can capture negative or positive peaks as fast as 1 millisecond in duration.

Data record (STORE/RECALL)

1. STORE function
   Allows the instrument to STORE 2000 data with selected time interval between 1to 255S.
2. RECALL function
   Recalls the stored data with respect to each memory address.

Parameter setting up (SET)

This allows the user to set the upper limit buzzer alarm, lower limit alarm, auto power off time, set backlit time.

DT-9985 | True RMS Industrial Multimeter and Insulation Resistance Tester

Technical Specifications

Function	Range	Resolution	Accuracy
DC Voltage	400mV	0.01mV	±(0.06% reading + 4digits)
	4V	0.0001V	
	40V	0.001V	
	400V	0.01V	
	1000V	0.1V	±(0.1% reading + 5digits)
AC Voltage			50 to 1000Hz
	400mV	0.1mV	±(1.0% reading + 7digits)
	4V	0.001V	
	40V	0.01V	±(1.0% reading + 5 digits)
	400V	0.1V	
	1000V	1V	
AC+ DCVoltage	400mV	0.1mV	±(1.0% reading + 7digits) (50/60HZ)
	4V	0.001V	
	40V	0.01V	
	400V	0.1V	
	1000V	1V	
	All AC voltage ranges are specified from 5% of range to 100% of range		
DC Current	400μA	0.01μA	±(1.0% reading + 3 digits)
	4000μA	0.1μA	
	40mA	0.001mA	
	400mA	0.01mA	
	10A	0.001A	
	(20A: 30 sec max with reduced accuracy)		
AC Current (AC+DC)			50 to 1000Hz
	400μA	0.1μA	±(1.5% reading + 7digits)
	4000μA	1μA	
	40mA	0.01mA	
	400mA	0.1mA	
	10A	0.01A	
AC+ DC Current	400μA	0.1μA	±(1.5% reading + 7digits)
	4000μA	1μA	
	40mA	0.01mA	
	400mA	0.1mA	
	10A	0.01A	
	(20A: 30 sec max with reduced accuracy)		
	All AC current ranges are specified from 5% of range to 100% of range		

NOTE: Accuracy is stated at 65°F to 83°F (18°C to 28°C) and less than 75% RH.

AC switch according to the calibration of sine wave. It generally increase ±(2% reading + 2% full scale) if non sine wave in the wave crest less than 3.0.

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Function	Range	Resolution	Accuracy
Resistance	400Ω	0.01Ω	±(0.3% reading + 9 digits)
	4kΩ	0.0001kΩ	±(0.3% reading + 4 digits)
	40kΩ	0.001kΩ	
	400kΩ	0.01kΩ	
	4MΩ	0.001MΩ	
	40MΩ	0.01MΩ	±(2.0% reading + 10 digits)
Capacitance	40nF	0.001nF	±(3.5% reading + 40 digits)
	400nF	0.01nF	
	4μF	0.0001μF	±(3.5% reading + 10 digits)
	40μF	0.001μF	
	400μF	0.01μF	
	4000μF	0.1μF	±(5% reading + 10 digits)
	40mF	0.001mF	
Frequency (electronic)	40Hz	0.001Hz	±(0.1% reading + 1 digits)
	400Hz	0.01Hz	
	4kHz	0.0001kHz	
	40kHz	0.001kHz	
	400kHz	0.01kHz	
	4MHz	0.0001MHz	
	40MHz	0.001MHz	
	100MHz	0.01MHz	Not specified
	Sensitivity: 0.8V rms min. @ 20% to 80% duty cycle and <100kHz; 5Vrms min @ 20% to 80% duty cycle and > 100kHz.		
Frequency (electrical)	40.00Hz-10KHz	0.01Hz - 0.001KHz	±(0.5% reading)
	Sensitivity:1Vrms		
Duty Cycle	0.1 to 99.90%	0.01%	±(1.2% reading + 2 digits)
	Pulse width: 100μs - 100ms, Frequency: 5Hz to 150kHz		
Temp (type-K)	-50 to 1000°C	0.1°C	±(1.0% reading + 2.5°C)
	-58 to 1832°F	0.1°F	±(1.0% reading +4.5°F) (probe accuracy not included)
4-20mA%	-25 to 125%	0.01%	±50 digits
	0mA=-25%, 4mA=0%, 20mA=100%, 24mA=125%		

Meg OHMS

Terminal Voltage	Range	Resolution	Accuracy	Test Current	Short circuit current
125V (0%~+10%)	0.125~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load125kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(4%+5)		
	400.1~4000 MΩ	1MΩ	±(5%+5)		
250V (0%~+10%)	0.250~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load250kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(3%+5)		
	400.1~4000 MΩ	1MΩ	±(4%+5)		
500V (0%~+10%)	0.500~4.000 MΩ	0.001MΩ	±(2%+10)	1mA @load500kΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(2%+5)		
	400.1~4000 MΩ	1MΩ	±(4%+5)		
1000V (0%~+10%)	1.000~4.000 MΩ	0.001MΩ	±(3%+10)	1mA @load1MΩ	≤1mA
	4.001~40.00 MΩ	0.01MΩ	±(2%+10)		
	40.01~400.0 MΩ	0.1MΩ	±(2%+5)		
	400.1~4000 MΩ	1MΩ	±(4%+5)		

Note: Accuracy specifications consist of two elements:
- (% reading) – This is the accuracy of the measurement circuit.
- (+ digits) – This is the accuracy of the analog to digital converter.

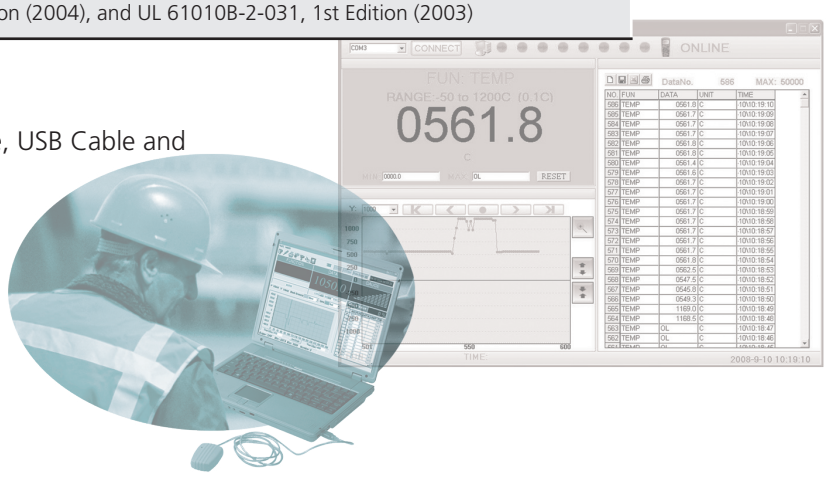
DT-9985 | True RMS Industrial Multimeter and Insulation Resistance Tester

General Specifications

Store capacitance	2000
Enclosure	Double molded, waterproof
Shock (Drop) Test	6.5 feet (2 meters)
Diode Test	Test current of 0.9mA maximum, open circuit voltage 2.8V DC typical
Continuity Check	Audible signal will sound if the resistance is less than 35Ω (approx.), test current <0.35mA
PEAK	Captures peaks >1ms
Temperature Sensor	Requires type K thermocouple
Input Impedance	>10MΩ VDC & >9MΩ VAC
AC Response	True rms
AC True RMS	The term stands for "Root-Mean-Square," which represents the method of calculation of the voltage or current value. Average responding multimeters are calibrated to read correctly only on sine waves and they will read inaccurately on non-sine wave or distorted signals. True rms meters read accurately on either type of signal.
ACV Bandwidth	50Hz to 1000Hz
Crest Factor	≤3 at full scale up to 500V, decreasing linearly to ≤1.5 at 1000V
Display	40,000 count backlit liquid crystal with bargraph
Overrange indication	"OL" is displayed
Auto Power Off	15 minutes (approximately) with disable feature
Polarity	Automatic (no indication for positive); Minus (-) sign for negative
Measurement Rate	2 times per second, nominal
Low Battery Indication	"⊟" is displayed if battery voltage drops below operating voltage
Battery	One 9 volt (NEDA 1604) battery
Fuses	mA, µA ranges: 0.5A/1000V ceramic fast blow; A range: 10A/1000V ceramic fast blow
Operating Temperature	41°F to 104°F (5°C to 40°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Operating Humidity	Max 80% up to 87°F (31°C) decreasing linearly to 50% at 104°F (40°C)
Storage Humidity	<80%
Operating Altitude	7000ft. (2000 meters) maximum.
Safety	This meter is intended for origin of installation use and protected, against the users, by double insulation per EN61010-1 and IEC61010-1 2nd Edition (2001) to Category IV 600V and Category III 1000V; Pollution Degree 2. The meter also meets UL 61010-1, 2nd Edition (2004), CAN/CSA C22.2 No. 61010-1 2nd Edition (2004), and UL 61010B-2-031, 1st Edition (2003)

Accessories

Test Leads, 6pcs Battery, Type K Temperature Probe, USB Cable and Software (9985RF), Gift Box with Carrying Case.



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