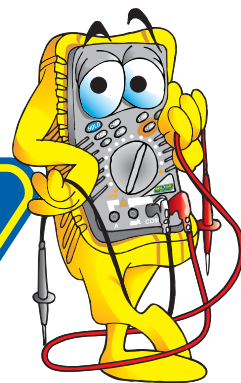


General Purpose Multimeters

**MAJOR
TECH**



Technical Data



MT1877

The MT1877 DM is a 4000 count auto ranging multimeter, with manual override. This meters offers a great feature of measuring frequency on AC voltage and current with the range of 50Hz to 400Hz. The large LCD display with clear range annunciations and backlight ensure that readings are easy to read under all circumstances. This meter ensures that if the rotary switch is turned in any direction whilst signals less than 1000V AC/DC are input into the meter, the meter will not be damaged. It is even protected against measuring voltage if the knob is set on the ohms range accidentally. This meter is perfect for technicians in maintenance, facility maintenance, installation and production equipment maintenance.

Features Include:

- IP67 Dust & Waterproof with O-Ring sealed casing
- When AC voltage measured, LCD turns red to indicate presence of voltage
- Non contact voltage detector, LCD turns red
- Auto Range with Manual Override
- Measures Frequency range on Electronic and Electrical Circuits
- Capacitance to 200 μ F
- Measures AC and DC Voltage to 1000V
- Relative Mode
- Data Hold / Duty Cycle
- NCV detection above 110V AC
- Measures Resistance up to 40M Ω
- 4000 Count LCD
- Full Ranges Protection
- Auto Power Off
- Overmoulded rubber housing
- Integrated Test Lead Holder
- Blue backlight for dimly lit areas

General Specifications

Insulation	: Class2, Double insulation.
Over voltage category	: CATIV 600V, CATIII 1000V
Surge Protection	: peak IEC 61010
Display	: 4000 counts LCD display, 21mm high
Polarity	: Automatic, (-) negative polarity indication.
Over-range	: "OL" mark indication.
Non-Contact Voltage (NCV)	: The NCV function works on any rotary switch position. <ol style="list-style-type: none"> 1. Test the detector on a known live circuit before use. 2. Hold the top of the meter very close to the voltage source as shown. 3. If voltage is present, the back light will flash a bright red.
Low battery indication	: a battery "□" symbol is displayed when the battery voltage drops below the operating level.
Measurement rate	: 2 times per second nominal.
Auto power off	: Meter automatically shuts down after approx. 30 minutes of inactivity.
Operating environment	: -10 °C to 50 °C (14 °F to 122 °F) at < 70 % relative humidity.
Storage temperature	: -30 °C to 60 °C (-4 °F to 140 °F) at < 80 % relative humidity.
Relative humidity	: 90% (0°C to 30°C); 75% (30°C to 40°C); 45% (40°C to 50°C);
For inside use, max height	: Operating: 3000m, Storage 10,000m.
Pollution degree	: 2
Safety	: The instrument complies with IEC/EN 61010-1:2001 and IEC/EN 61010-031:2002
Power	: One 9V battery, NEDA 1604, IEC 6F22.
Dimensions	: 182 (H) x 82 (W) x 55 (D) mm
Weight: Approx.	: 375g.
Accuracy	: Accuracy is given at 18 °C to 28 °C (65 °F to 83 °F), less than 70 % RH



Measurement	Range	Resolution	Accuracy
DC Voltage (Auto-ranging)	400.0mV	0.1mV	± 0.8% of rdg ± 2 dgts
	4.000V	1mV	
	40.00V	10mV	
	400.0V	100mV	
	1000V	1V	± 1.0% of rdg ± 4 dgts
AC Voltage (Auto-ranging)	400.0mV	0.1mV	± 1.0% of rdg ± 3 dgts
	4.000V	1mV	
	40.00V	10mV	
	400.0V	100mV	± 1.2% of rdg ± 5 dgts
	1000V	1V	
DC Current (Auto-ranging)	400.0µA	0.1µA	± 1.2% of rdg ± 3 dgts
	4000µA	1µA	
	40.00mA	10µA	
	400.00mA	100µA	
	10A	10mA	± 2.5% of rdg ± 3 dgts
AC Current (Auto-ranging)	400.0uA	0.1uA	± 1.2% of rdg ± 5 dgts
	4000uA	1uA	
	40.00mA	10uA	
	400.0mA	100uA	
	10A	10mA	± 2.5% of rdg ± 5 dgts
Resistance (Auto-ranging)	400.0Ω	0.1Ω	± 0.8% of rdg ± 5 dgts
	4.000kΩ	1Ω	± 0.8% of rdg ± 2 dgts
	40.00kΩ	10Ω	
	400.0kΩ	100Ω	
	4.000MΩ	1kΩ	± 2.5% of rdg ± 8 dgts
40.00MΩ	10kΩ		
Capacitance (Auto-ranging)	40.00nF	10pF	± 5.0% of rdg ± 7 dgts
	400.0nF	0.1nF	± 3.0% of rdg ± 5 dgts
	4.000uF	1nF	
	40.00uF	10nF	
	100.0µF	0.1µF	± 5.0% of rdg ± 7 dgts
Frequency (Auto-ranging)	4.000Hz	0.001Hz	± 1.0% of rdg ± 3 dgts
	40.00Hz	0.01Hz	
	400.0Hz	0.1Hz	
	4.000KHz	1Hz	
	40.00kHz	10Hz	
	400.0kHz	100Hz	
	5.00MHz	1kHz	± 1.2% of rdg ± 4 dgts
Duty Cycle	0.1 ~ 99.9%	0.1%	± 1.2% of rdg ± 2 dgts

Ordering Information

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