

# Digital multimeters

## MD 9060 TRMS High precision industrial multimeter



The MD 9060 ranks among the most accurate multimeters with a large bandwidth and very high resolution. Metrel MD 9060 is equipped with a built-in VFD function for accurate measurements of frequency and voltage of motor control signals, large 2-line 500.000 counts LCD display, fast data acquisition and transfer (via optical interface), CAT IV / 1000 V, TRMS current and voltage measurement, conductance measurement and fast one-handed operation. MD 9060 has a wide range of extra features, including data hold, min / max, average, differential, peak, peak / peak with extra fast 1ms response time, auto power off, frequency filter, reset and relative function. The MD 9060 is the ideal choice for demanding measurement tasks in industry, in the laboratories and in everyday repair and maintenance practice.

### MEASURING FUNCTIONS

- TRMS AC, DC voltage measurement;
- TRMS AC, DC current measurement;
- Capacitance measurement;
- Resistance measurement;
- Diode test;
- Duty cycle;
- Mains supply frequency measurement;
- Frequency of digital signals measurement;
- Continuity test (acoustic signalling);
- Conductance measurement;
- Temperature measurement.

### KEY FEATURES

- **TRMS:** accurate readings on sinusoidal and non-sinusoidal signals.
- **VFD:** correctly measure frequency and voltage of signals for motor control.
- **Duty cycle:** measure digital logic level duty cycle.

- **Auto-ranging:** user can switch between auto and manual ranging.
- **Temperature measurement:** measures T1, T2 and T1 + T2 temperature in Celsius and in Fahrenheit.
- **Lead alert:** incorrect lead connection alert.
- **Relative zero mode:** relative function for comparing the difference between signals or removing background noise.
- **MAX/MIN/AVG:** recording of maximum, minimum and average values.
- **Data Hold:** data hold feature freezes the display for later view.
- **Peak Hold:** Crest (instantaneous peak) capture mode.
- **PC Link:** test results can be downloaded to the computer via the optional PC software.
- **Safety:** CAT IV / 1000 V overvoltage protection.
- **Backlight:** large bright 500.000 counts dual LCD display with backlight for working in dark conditions.

### APPLICATION

- High level industrial testing;
- High level electronic fault finding;
- Field servicing;
- Heavy duty electrical testing.

## TECHNICAL SPECIFICATION

FUNCTION	Range	Accuracy
TRMS AC and AC+DC voltage (20 Hz ... 40kHz)	500.00 mV ... 1000.0 V	from $\pm(0.45\%$ of reading + 40 digits) to $\pm(4.0\%$ of reading + 40 digits)
DC Voltage	500.00 mV ... 1000.0 V	from $\pm(0.02\%$ of reading + 2 digits) to $\pm(0.15\%$ of reading + 2 digits)
AC Voltage (20 Hz ... 100 kHz)	500.00 mV ... 1000.0 V	from $\pm(0.3\%$ of reading + 20 digits) to $\pm(4.0\%$ of reading + 40 digits)
DC Current	500.00 $\mu$ A ... 10.000 A	from $\pm(0.15\%$ of reading + 20 digits) to $\pm(0.5\%$ of reading + 20 digits)
TRMS AC and AC+DC Current (40 Hz ... 100 kHz)	600.0 $\mu$ A ... 10.00 A	from $\pm(0.5\%$ of reading + 50 digits) to $\pm(5.0\%$ of reading + 50 digits)
Diode Test	2.0000 V Open-circuit voltage < 3.5 V DC, Test current 0.4 mA	$\pm(1.0\%$ of reading + 1 digit)
Resistance	500.00 $\Omega$ ... 50.000 M $\Omega$	from $\pm(0.07\%$ of reading + 10 digits) to $\pm(2.0\%$ of reading + 6 digits)
Conductance	99.99 nS	$\pm(2.0\%$ of reading + 10 digits)
Capacitance	50.00 nF ... 25.00 mF	from $\pm(0.8\%$ of reading + 3 digits) to $\pm(6.5\%$ of reading + 5 digits)
Temperature	-50.0 $^{\circ}$ C ... 1000.0 $^{\circ}$ C -58.0 $^{\circ}$ F ... 1832.0 $^{\circ}$ F	$\pm(0.3\%$ of reading + 1.5 $^{\circ}$ C) $\pm(0.3\%$ of reading + 3.0 $^{\circ}$ F)
Variable Frequency Drive AC	5 Hz ... 440 Hz	from $\pm(2.0\%$ of reading + 50 digits) to $\pm(6.0\%$ of reading + 80 digits)
Frequency of digital equipment	5.000 Hz ... 1.0000 MHz	$\pm(0.002\%$ of reading + 4 digits)
Mains frequency	10 Hz ... 200 kHz	$\pm(0.02\%$ of reading + 4 digits)
Power supply	9V battery (NEDA1604G, JIS006P, or IEC6F22)	
Overvoltage category	CAT IV / 1000 V	
Dimensions	208 x 103 x 64.5 mm	
Weight	635 g	

## ORDERING INFORMATION



### Standard set MD 9060

- MD 9060 TRMS High precision industrial multimeter
- AMD 9026 Test lead with probe (red, black), 2 pcs
- AMD 9023 Thermocouple probe, type K
- 9V battery
- Instruction manual
- Calibration certificate

## OPTIONAL ACCESSORIES

Photo	Order No.	Acc. decription
	AMD 9028	Alligator clip
	AMD 9026	Test lead with probe, 2 pcs
	AMD 9023	Thermocouple probe, type K
	AMD 9024	Adapter for thermocouple probe AMD 9023
	AMD 9050	USB interface set
	AMD 9022	Magnetic Hanging Strap
	AMD 9100	Soft carrying pouch

### METREL d.o.o.

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