

Digital multimeter

MD 9055 TRMS Advanced Multimeter



The MD 9055 is another name for versatility in a small package. It supports a large number of measurements that make it a staple in both industrial and research environments. It has a 60000 counts display and supports a very wide array of measurements, including auto-hold of the measurement for working in confined spaces.

MEASUREMENT FUNCTIONS

- TRMS AC, DC voltage measurement;
- TRMS AC, DC current measurement;
- Capacitance measurement;
- Resistance measurement;
- Diode test;
- Mains supply frequency measurement;
- Frequency measurement of digital signals;
- Continuity test (acoustic signalling);
- Conductance measurement;
- Temperature measurement;
- 4-20 mA regulation loop test;
- Non-contact electrical field detection.

KEY FUNCTIONS

- **TRMS:** accurate readings on sinusoidal and non-sinusoidal signals.
- **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.
- **dBm measurement** results with settable reference value.
- **Auto-hold** to freeze the measurement result for comfortable viewing.
- **Relative zero mode:** relative function for comparing the difference between signals or removing background noise.
- **VFD:** feature makes the instrument capable of measuring the true values in accordance with frequency.
- **MAX/MIN/AVG:** recording of maximum, minimum and average values.
- **Crest** (instantaneous peak) capture mode catches 5 ms long peaks.
- **Safety:** CAT III / 1000 V overvoltage protection.
- **Backlight:** large bright 4 digits 60.000 counts dual LCD display with backlight for working in dark conditions.

APPLICATIONS

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

TECHNICAL SPECIFICATION

FUNCTION	Range	Accuracy
DC Voltage	0 ... 1000 V	0.03 % of reading + 2 digits
AC Voltage	0 ... 1000 V, 50 Hz ... 100 kHz	0.5 % of reading + 30 digits
AC+DC Voltage	0 ... 1000 V, 50 Hz ... 20 kHz	0.7 % of reading + 40 digits
VFD AC Voltage	0 ... 1000 V	4 % of reading + 50 digits
LoZ Auto-DCV	0 ... 1000 V	0.5 % of reading + 30 digits
LoZ Auto-ACV	0 ... 1000 V	1.0 % of reading + 40 digits
dBm	Subject to ACmV, ACV and reference impedance selected	
Ohms	600 Ω ... 60 MΩ	0.085 % of reading + 10 digits
BeepLit™ Continuity Tester	Threshold 100 Ω ... 420 Ω, response < 100 μs	
BeepLit™ Diode Tester	3.0000 V	1 % of reading + 20 digits
Capacitance	10 nF ... 10.00 mF	1.0 % of reading + 10 digits
DC Current	600 μA ... 10 A	0.075 % of reading + 20 digits
AC Current	600 μA ... 10 A	0.9 % of reading + 20 digits
AC+DC Current	600 μA ... 10 A	1.0 % of reading + 30 digits
DC Loop Current %4~20mA	4 mA = 0%; 20 mA = 100 %	±25 digits
Temperature	-200.0 °C ... 1090 °C	1.0 % of reading + 1.0 °C
Hz Logic Level Frequency	5.000 Hz ... 1.0000 MHz	0.002 % of reading + 4 digits
%Duty Cycle	0.10 % ... 99.99 %	3 d/kHz + 2 digits
~ Hz Line Level Frequency	10 Hz ... 50 kHz	0.05 % of reading + 5 digits
Non-Contact EF-Detection (NCV)	18 V ... 500 V	
MAX MIN AVG	Specified	Specified + 30 digits
CREST	Specified	Specified + 100 digits
AutoHold Real-Read™	Specified	Specified + 50 digits
Power supply	3 x 1.5 V batteries, type AAA	
Overvoltage category	CAT IV / 600 V, CAT III 1000 V	
Dimensions	193 x 89 x 51 mm	
Weight	420 g	

GENERAL SPECIFICATION

Display	4-5/6 digits 60,000 counts
Update Rate	4-5/6 digits: Max 5 per second nominal 31 Segment Bar-graph: 50 per second max
Operating Temperature	-20°C ... 55°C continuous operating (except on A function, see Electrical Specifications below for more details)
Relative Humidity	Maximum relative humidity 80 % for temperature up to 31 °C decreasing linearly to 50 % relative humidity at 55 °C
Storage Temperature	-20 °C ... 60 °C, < 80 % R.H. (with battery removed)
Altitude	Operating below 2000 m
Temperature Coefficient:	nominal 0.10 x (specified accuracy) / °C @ (-20 °C ... 18 °C or 28 °C ... 55 °C), or otherwise specified
Sensing:	AC and AC+DC True RMS
Safety:	Double insulation per IEC/UL/EN/BSEN 61010-1 Ed. 3.0, 61010-2-030 Ed. 1.0, 61010-2-033 Ed. 1.0, 61010-031 Ed. 2.0 to Measurement Categories III 1000V AC & DC and Category IV 600V AC & DC
Overload Protections:	
- μA & mA	0.4 A/1000 V DC/AC, IR 30 kA or better, F fuse
- A	11 A/1000 V DC/AC, IR 20 kA or better, F fuse
- V	1100 V DC/AC rms
- mV, Ω & Others	1000 V DC/AC rms
Transient protection	8 kV (1.2/50 μs surge)
E.M.C.	Meets EN/BSEN 61326-1:2013
Power Consumption	10 mA typical for AC & AC+DC Voltage/Current functions; 8 mA typical for other functions
Low Battery	Below approx. 3.7 V
APO Timing	Idle for 15 minutes
APO Consumption	15 μA typical
Special Features	AutoHold; VFD; BeepLit™ Continuity; Record MAX, MIN, & AVG readings; Crest MAX & MIN readings; Relative Zero mode; Data Hold; Backlighted LCD display; BeepJack™ audible & visible input warning; % 4-20mA loop current readings; T1-T2 differential temperature readings; dBm readings.

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ORDERING INFORMATION



Standard set MD 9055

- MD 9055 TRMS Advanced Multimeter
- AMD 9026 Test lead with probe, 2 pcs
- AMD 9023 Thermocouple probe type K
- 3 AA 1.5V batteries
- User manual

OPTIONAL ACCESSORIES

Photo	Order No.	Acc. description
	AMD 9026	Test lead with probe, 2 pcs
	AMD 9023	Thermocouple probe, type K
	AMD 9024	Adapter for thermocouple probe AMD 9023