



Digital multimeter MD 9020

Order No. 20 991 442

The MD 9020 is a high-quality digital multimeter, designed for everyday use in the laboratory and for maintenance and repair in the industrial sector.

Test functions:

- DC and AC voltage up to 1000V
- DC and AC current measurement up to 10A
- Diode test
- Resistance measurement
- Continuity test
- Frequency measurement
- Capacitance measurement
- Temperature measurement

Key Features:

- Auto-ranging on all ranges
- LCD display, 3-3/4 digit, 4000 count
- Data hold function
- Acoustic signalling on continuity test
- 0.08% basic accuracy
- Frequency measurement
- Temperature measurement
- Protected against wrong connection
- CAT III/600 V, CAT II/1000 V overvoltage category

Technical data

Function	Range	Accuracy
DC voltage	400.0 mV ÷ 1000 V	from ±(0.3 % of reading + 4 digits) to ±(1.0 % of reading + 4 digits)
TRMS AC voltage 50 Hz - 500 Hz	400.0 mV ÷ 1000 V	from ±(1.5 % of reading + 5 digits) to ±(4.0 % of reading + 5 digits)
DC current measurement	400.0 µA ÷ 10.0 A	from ±(1.2 % of reading + 3 digits) to ±(2.0 % of reading + 5 digits)
TRMS AC current measurement	400.0 µA ÷ 10.0 A	from ±(1.5 % of reading + 4 digits) to ±(2.0 % of reading + 6 digits)
Diode test	Open-circuit voltage <1.6 V DC, Test current 0.25 mA	
Resistance measurement	400.0 Ω ÷ 40.00 MΩ	from ±(0.6 % of reading + 4 digits) to ±(2.0 % of reading + 4 digits)
Temperature measurement	-20 °C ÷ 300 °C	±(2 % + 3 °C)
Frequency	5 Hz ÷ 1000 Hz	±(0.5 % of reading + 4 digits)
Capacitance	500.0 nF ÷ 3000 µF	±(3.5 % of reading + 6 digits)
Power supply	2 x 1.5 V AAA size batteries	
Overvoltage category	CAT III/600 V, CAT II/1000 V	
Pollution degree	II	

Delivery package

Item No. MD 9020



Multimeter MD 9020 with rubber holster
2 test leads
Battery
User manual
Warranty

Optional accessories:

AMD 9023 - Temperature probe Type K
(in accordance with IST-90 and JIS C 1602)
AMD 9024 - plug adapter banana pins to k-type socket

Dimensions:

Size (W x H x L): 87 x 35.5 x 186 mm
Weight (including rubber holster): 396 g

Digital multimeter comparison

Item No.	MD 9050	MD 9040	MD 9030	MD 9020	MD 9015	MD 9010
						
Technical data						
True RMS	✓	✓	✓			
DC current range (A)	10	10	10	10	10	0.002
Basic accuracy (%)	0.2	0.2	1.5	1.5	0.8	1.2
Maximum resolution (µA)	0.01	0.01	0.1	0.1	0.1	0.1
AC current range (A)	10	10	10	10	10	0.002
Basic accuracy (%)	0.6	0.6	1.2	1.2	1	1.5
Maximum resolution (µA)	0.01	0.01	0.1	0.1	0.1	0.1
DC voltage range (V)	1000	1000	1000	1000	1000	600
Basic accuracy (%)	0.06	0.06	0.3	0.3	0.3	0.5
Maximum resolution (µA)	10	10	100	100	100	1000
AC voltage range (V)	1000	1000	1000	1000	750	600
Basic accuracy (%)	0.5	0.5	1.5	1.5	1	1.5
Maximum resolution (µA)	10	10	100	100	100	1000
Resistance measurement (M)	60	60	40	40	25	6
Basic accuracy (%)	0.1	0.1	0.6	0.6	0.4	1
Maximum resolution (µA)	10	10	100	100	100	100
Acoustic continuity test	✓	✓	✓	✓	✓	✓
Diode test	✓	✓	✓	✓	✓	✓
Capacitance	✓	✓	✓	✓	✓	
Mains frequency	✓	✓				✓
Frequency of digital signals	✓	✓	✓	✓		
Temperature measurement (Type K sensor)	T1 & T2 (temperature comparison)		T1	T1	T1	
Autocheck® V-Ω	✓					✓
nS (conductance)	✓					
Count	9999 (ACV, DCV, Hz, Ns) 6000 (mV, µA, mA, A, Ω, F)	9999 (ACV, DCV, Hz, Ns) 6000 (mV, µA, mA, A, Ω, F)	4000	4000	2500	6000
Backlight	✓		✓			
Analogue bar-graph	41 segment	41 segment				
IR, RS232 interface (data transfer)	✓	✓			✓	
Automatic and manual range selection	✓	✓	✓	✓	✓	✓
Automatic switch off	✓	✓	✓	✓	✓	✓
Non-contact voltage detection	✓				✓	✓
Peak	✓		Peak value storage	Peak value storage		
Data hold	✓	✓	✓	✓	✓	
Recording	✓					
Relative value	✓	✓	✓	✓	✓	
Compensation for test leads	✓	✓				
Overvoltage category	CAT IV/1000 V	CAT IV/1000 V	CAT III/600 V, CAT II/1000 V	CAT III/600 V, CAT II/1000 V	CAT III/600 V, CAT II/1000 V	CAT III/300 V, CAT II/600 V
Degree of protection	IP 55	IP 55	IP 50	IP 50	IP 52	IP 50
CE mark	✓	✓	✓	✓	✓	✓