

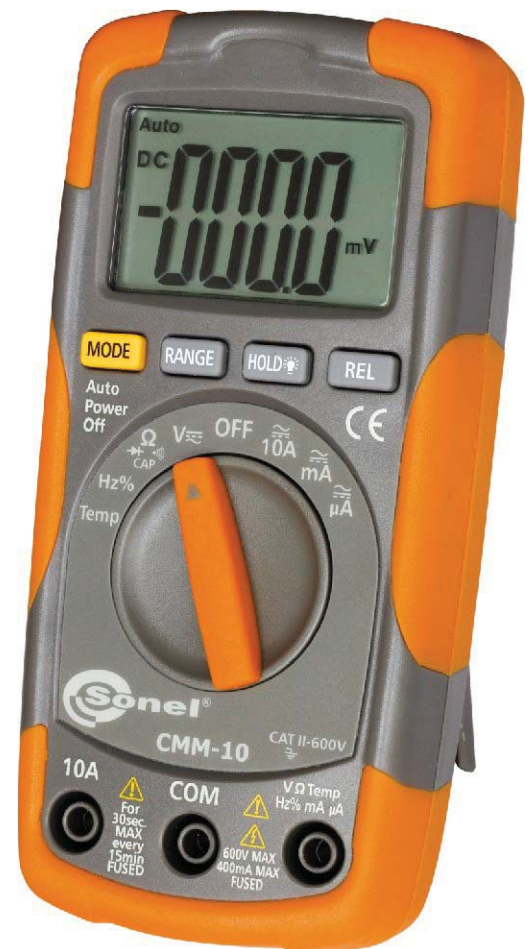


# CMM-10

## MULTIMETER

The most important features of CMM-10 are:

- Autoranging/manual range selection.
- „DATA HOLD” function, for holding measured values.
- „REL” function, which allows you to make measurements relative to a stored reference value.
- Continuity test with acoustic signalling (beeper).
- „AUTO-OFF” function.
- Display 3 2/3 digits (5000 max).



### Standard accessories:

- test leads (2 pcs.)
- battery 9V
- K type temperature probe
- operating manual

WAPZCMP1  
WASONTEMK

### Optional accessories:

- carrying case S1

WAFUTS1

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# CMM-10

Multimeter CMM-10 has been designed for the purpose of measurements of AC/DC voltage, AC/DC current, resistance, capacitance, frequency, duty cycle, temperature and also for testing diodes and continuity.

The most important features of CMM-10 are:

- Autoranging/manual range selection.
- „DATA HOLD” function, for holding measured values.
- „REL” function, which allows you to make measurements relative to a stored reference value.
- Continuity test with acoustic signalling (beeper).
- „AUTO-OFF” function.
- Display 3 7/8 digits (5000 max).

## Frequency measurement

Range	Resolution	Accuracy
5,000 Hz	0,001 Hz	±(1,5% m.v. + 5 digits)
50,00 Hz	0,01 Hz	
500,0 Hz	0,1 Hz	
5,000 kHz	0,001 kHz	±(1,2% m.v. + 3 digits)
50,00 kHz	0,01 kHz	
500,0 kHz	0,1 kHz	
5,000 MHz	0,001 MHz	±(1,5% m.v. + 4 digits)
10,00 MHz	0,01 MHz	

- sensitivity: ≥8V RMS

## Duty cycle measurement

Range	Resolution	Accuracy
0,1...99,9%	0,1%	±(1,2% m.v. + 2 digits)

- sensitivity: ≥8V RMS,
- pulse width: 100µs - 100ms,
- frequency width: 5Hz...150kHz.

## Temperature measurement

Range	Resolution	Accuracy *
-20°C...+760°C	1°C	±(3% m.v. + 5°C, 9°F)
-4°F...+1400°F	1°F	

\*) probe (K type) accuracy not included

Electric security:	
- type of insulation	double, according to EN 61010-1 and IEC 61557
- measurement category	CAT II 600V acc. to EN 61010-1:2004
- protection class acc. to EN 60529	IP40
Other technical data:	
- power supply	9V battery type 6LR61
- diode test	I=0,3mA, U <sub>c</sub> =1,5V DC
- continuity test	I<0,3mA, sound signal for R<50Ω
- over range indication	OL displayed
- sampling rate	2 times per second
- input impedance	7,8MΩ (V AC/DC)
- display	5000 counts LCD display with function indication
- dimensions	138 x 68 x 37 mm
- weight	approx. 210 g
- fuses	mA, µA range: 0,5A/250V fast A range: 10A/250V fast
- auto power OFF	30 min.
- accordance with following standards	EN 61010-1:2004 EN 61010-2-032
- quality standard	ISO 9001

Rated operational conditions:	
- operating temperature	0...+50°C at <70% rel. humidity
- storage temperature	-20...+60°C at <80% rel. humidity

## DC voltage measurement

Range	Resolution	Accuracy
400,0 mV	0,1 mV	±(0,5% m.v. + 2 digits)
4,000 V	0,001 V	
40,00 V	0,01 V	
400,0 V	0,1 V	±(1,2% m.v. + 2 digits)
600 V	1 V	

- input impedance: 7,8 MΩ

## AC voltage measurement

Range	Resolution	Accuracy
400,0 mV	0,1 mV	±(1,5% m.v. + 70 digits)
4,000 V	0,001 V	±(1,2% m.v. + 3 digits)
40,00 V	0,01 V	
400,0 V	0,1 V	±(1,5% m.v. + 3 digits)
600 V	1 V	

- input impedance: 7,8 MΩ,
- frequency range: 50...400Hz.

## DC current measurement

Range	Resolution	Accuracy
400,0 µA	0,1 µA	±(1,0% m.v. + 3 digits)
4 000 µA	1 µA	
40,00 mA	0,01 mA	±(1,5% m.v. + 3 digits)
400,0 mA	0,1 mA	
4,000 A	0,001 A	±(2,5% m.v. + 5 digits)
10,00 A	0,01 A	

## AC current measurement

Range	Resolution	Accuracy
400,0 µA	0,1 µA	±(1,5% m.v. + 5 digits)
4 000 µA	1 µA	
40,00 mA	0,01 mA	±(1,8% m.v. + 5 digits)
400,0 mA	0,1 mA	
4,000 A	0,001 A	±(3,0% m.v. + 7 digits)
10,00 A	0,01 A	

- frequency range: 50...400Hz.

## Resistance measurement

Range	Resolution	Accuracy
400,0 Ω	0,1 Ω	±(1,2% m.v. + 4 digits)
4,000 kΩ	0,001 kΩ	
40,00 kΩ	0,01 kΩ	±(1,2% m.v. + 2 digits)
400,0 kΩ	0,1 kΩ	
4,000 MΩ	0,001 MΩ	
40,00 MΩ	0,01 MΩ	±(2,0% m.v. + 3 digits)

## Capacitance measurement

Range	Resolution	Accuracy
40,00 nF	0,01 nF	±(5,0% m.v. + 7 digits)
400,0 nF	0,1 nF	
4,000 µF	0,001 µF	±(3,0% m.v. + 5 digits)
40,00 µF	0,01 µF	
100,0 µF	0,1 µF	±(5,0% m.v. + 5 digits)

„m.v.”- measured value