Advanced Industrial Multimeter





The automatic holding of the measurement result while working with both hands is now possible thanks to the AutoHold function



Measurements of the current loop 4-20 mA in analogue circuits controlling temperature, pressure, humidity or flow sensors are possible thanks to the special function that displays the percentage results for the corresponding current values



The meter allows the measurement of very small currents in the range of 500 μ A, useful during service works, e.g. in tests of real-time clock support systems or in the maintenance of flame sensors in combustion chambers





Thanks to the dedicated "CMM-60 Multimeter Software", it is possible to transfer results from the meter's memory to a computer program and analyse these results further





Visibility in all conditions and reading at a wide angle are possible thanks to the colour display with a resolution of 320 x 240 pixels and a diagonal of 3.5"



Operating the meter in thick gloves during industrial measurements will not be a problem thanks to the specially designed rotary switch



Trends function

The possibility of presenting measurement results of the recorder in the graphical form of the trend - the Trend Capture function



MAX / MIN / AVG functions

Recording of the minimum and maximum values and calculation of the current measurements' average



Recording

Possibility of quick detection of irregularities by recording up to 10,000 measurement results



AC + DC function

The possibility of measuring the DC and AC component as the function of voltage measurement



Bluetooth communication

The possibility of sending measurement results in real time on mobile devices with Android system and to the computer application "CMM-60 Multimeter Software"



Low-pass filter

Accurate voltage measurement while eliminating high-frequency interference generated by the operation of electronic machines and devices

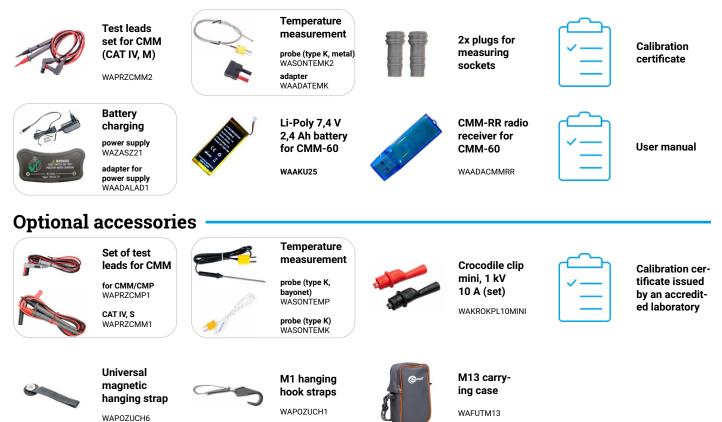
Furthermore

- over 14 measurement functions, including AC / DC voltage measurement, AC / DC current measurement, resistance, capacity, temperature, pulse width, fill factor, frequency
- True RMS for AC voltage and current allows to measure the effective value of distorted waveforms
- saving the results of fast 1 ms waveforms thanks to the PEAK value measurement function
- the relative REL measurement function allows, among others, elimination of resistance values of test leads
- real-time clock that allows adding date and time of a measurement to each sample
- HELP function to quickly explain the meaning of a given measuring function and buttons
- protection against water flooding and penetration of dust into the electronic system due to the extremely robust housing with IP67 protection level
- dedicated lithium-polymer battery allowing for long-term operation of the device
- a dedicated charger and power supply for charging the battery without removing it included in the set

Technical specifications

Measurement functions	Range	Resolution	Accuracy ±(% m.v. + digits)
DC voltage	50 mV / 500 mV / 5 V / 50 V / 500 V / 1000 V	from 0.001 mV	from ±(0.025% m.v.+ 5 digits)
AC voltage (TRMS)	50 mV / 500 mV / 5 V / 50 V / 500 V / 1000 V	from 0.001 mV	from ±(0.3% m.v. + 25 digits)
DC current	500 μA / 5000 μA / 50 mA / 500 mA / 10 A	from 0.01 µA	from ±(0.1% m.v.+ 20 digits)
AC current (TRMS)	500 μA / 5000 μA / 50 mA / 500 mA /10 A	from 0.01 µA	from ±(0.6% m.v. + 25 digits)
Resistance	50 Ω / 500 Ω / 5 kΩ / 50 kΩ / 500 kΩ / 5 MΩ / 50 MΩ	from 0.001 Ω	from ±(0.05% m.v. + 10 digits)
Capacity	5 nF / 50 nF / 500 nF / 5 μF/ 50 μF / 500 μF / 10 mF	from 0.001 nF	from ±(2% m.v. + 40 digits)
Frequency	50 Hz / 500 Hz / 5 kHz / 50 kHz / 500 kHz / 5 MHz / 10 MHz	from 0.001 Hz	±(0.01% m.v.+ 10 digits)
Duty cycle	0.1099.90%	0.01%	±(1.2% m.v.+ 2 digits)
4-20 mA% current measurement	-25.00125.00%	0.01%	±50 digits
Temperature measurement (°C)	-50.0+1000.0°C	0.1°C	±(1.0% m.v. + 2.5°C)
Temperature measurement (°F)	-58.0+1832.0°F	0.1°F	±(1.0% m.v. + 4.5°F)
Basic features			
Counting	50.000 digits		
Automatic range selection	\checkmark		
Manual range selection	✓		
The HOLD function	\checkmark		
Relative measurement	\checkmark		
MAX / MIN / AVG measurement	\checkmark		
Beeper - continuity buzzer	\checkmark		
Diode test	\checkmark		
Advanced features			
TRMS measurement	\checkmark		
Frequency band for TRMS	10000 Hz		
AC + DC measurement	1		
Low-pass filter	✓		
dBV / dBm measurement	1		
Peak HOLD function	\checkmark		
Bluetooth communication	✓		
Device memory	2000		
Recording memory	10000		
Trend Capture function	\checkmark		
Date and time of measurement	\checkmark		
Other features			
Battery indicator	\checkmark		
Automatic shutdown function	\checkmark		
Rechargeable battery	\checkmark		
Type of display	3.5" color TFT LCD 320 x 240 pixels		
Safety and conditions of use			
Measurement category (EN 61010)	CAT IV 600 V / CAT III 1000 V		
Protection Level	IP67		
Internal impedance	about 10 MΩ		
External dimensions	220 x 97 x 58 mm		
Weight	342 g		
Working temperature range	+5+40°C		
Storage temperature range	-20+60°C		
Humidity	up to 80% at 31°C, with linear	slope to 50% at 40	D°C

Standard accessories



Check other meters from the CMM family



Sonel CMM-10

- intuitive
- clear reading
 safe and economical
- the basic measuring device



Sonel CMM-11

- durable
- versatile
- pocket
- for every electrician



Sonel CMM-30

- accurate
- handy
 - broadened functionality
 for the industry



Sonel CMM-60

- ultra-durable
- multi-purpose
- for special applicationsadvanced troubleshooting