



Advanced Industrial Multimeter 康高特-SONEL CMM-60

index: WMGBCM60

CAT III

1000 V

CAT IV

600 V

IP67

BLUETOOTH

RECORDER



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.



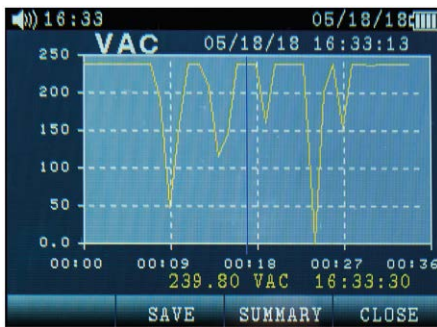
Visibility in all conditions and reading at a wide angle are possible thanks to the colour display with a resolution of 320 x 240 pixels and a diagonal of 3.5".



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



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



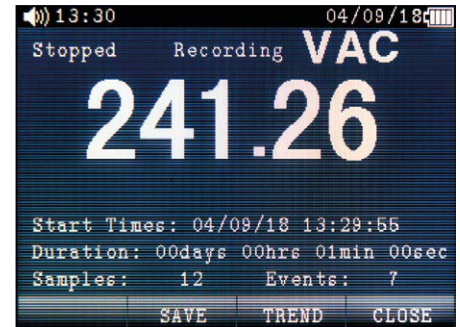
Trends function

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 (**Sonel Multimeter Mobile** app) 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	up to 1000 V	from 0.001 mV	from ±(0.025% m.v.+ 5 digits)
AC voltage (TRMS)	up to 1000 V	from 0.001 mV	from ±(0.3% m.v. + 25 digits)
DC current	up to 10 A	from 0.01 µA	from ±(0.1% m.v.+ 20 digits)
AC current (TRMS)	up to 10 A	from 0.01 µA	from ±(0.6% m.v. + 25 digits)
Resistance	up to 50 MΩ	from 0.001 Ω	from ±(0.05% m.v. + 10 digits)
Frequency	up to 10 MHz	from 0.001 Hz	±(0.01% m.v.+ 10 digits)
Capacity	up to 10 mF	from 0.001 nF	from ±(2% m.v. + 40 digits)
Duty cycle (%)	0.10...99.90%	0.01%	±(1.2% m.v.+ 2 digits)
4-20 mA% current measurement	-25.00...125.00%	0.01%	±50 digits
Temperature measurement	-50.0...+1000.0°C -58.0...+1832.0°F	0.1°C 0.1°F	±(1.0% m.v. + 2.5°C) ±(1.0% m.v. + 4.5°F)
Continuity / Diode test	✓ / ✓		
Basic features			
Counting		50.000 digits	
HOLD function		✓	
Manual / automatic range selection		✓ / ✓	
Advanced features			
MAX / MIN / AVG measurement		✓	
AC + DC measurement		✓	
Low-pass filter		✓	
dBV / dBm measurement		✓	
Peak HOLD function		✓	
Relative measurement REL		✓	
TRMS measurement		✓	
Frequency band for TRMS		10 000 Hz	
Memory			
internal		measurements: 2000 results recorder: 10 000 points, sampling frequency: from 1 Hz	
external		in mobile application	
Trend Capture function		✓	
Date and time of measurement		✓	
Bluetooth communication		✓	
Other features			
Automatic shutdown function		✓	
Battery indicator		✓	
Rechargeable battery		✓	
Beeper - continuity buzzer		✓	
Display			
Type		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	
Ingress protection		IP67	
Dimensions		220 x 97 x 58 mm 8.7" x 3.8" x 2.3"	
Weight		605 g 1.3 lbs	
Operating temperature		+5...+40°C 41...104°F	
Storage temperature		-20...+60°C -4...140°F	

Standard accessories



Test leads set for CMM (CAT IV, M)

WAPRCMM2



Temperature measurement

Probe (K-type, metal)
WASONTEMK2
Adapter
WAADATEMK



2x watertight socket protection plug



Factory calibration certificate



Battery charging

Power supply
WAZASZ21

Adapter for power supply
WAADALAD1



Li-Poly 7,4 V 2,4 Ah battery

WAAKU25



CMM-RR radio receiver

WAADACMMRR

Optional accessories



Set of test leads for CMM

for CMM/CMP
WAPRCMP1

CAT IV, S
WAPRCMM1



Temperature measurement

Probe (K-type, bayonet)
WASONTEMP

Probe (K-type)
WASONTEMK



Crocodile clip mini, 1 kV 10 A (set)

WAKROKPL10MINI



Calibration certificate with accreditation



Universal magnetic hanging strap

WAPOZUCH6



M1 hanging hook straps

WAPOZUCH1



M13 carrying case

WAFUTM13

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 applications
- advanced troubleshooting