



# CMP-400 CMP-401

## DIGITAL CLAMP-ON MULTIMETERS



### Standard accessories:

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

**WAPRZCMP1**

**WASONTEMK**

- carrying case
- operating manual



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# CMP-400 i CMP-401

- DC current measurement (CMP-401 only) and AC current.

- AC/DC voltage measurement up to 600V.

- Resistance measurement and continuity test:

- continuity test with acoustic signalling (beeper) for resistance below 50Ω.

- Temperature measurement (Fahrenheit and Celsius units).

- Frequency measurement.

- Capacitance measurement (CMP-401 only).

- Diode test.

- Additionally:

- safe, insulated measuring clamps,
- double molded housing,
- autoranging/manual range selection,
- „DATA HOLD” function, for holding measured values,
- backlit LCD,
- „REL” function,
- over range indication,
- „AUTO-OFF” function.

## Temperature measurement

Range	Accuracy *
-20,0 ... 760,0°C	±(3% m.v. + 5°C)
-4,0 ... 1400°F	±(3% m.v. + 9°F)

\*) probe (K type) accuracy not included

## Frequency measurement

Range	Accuracy
10Hz ... 10kHz	±(1,5% m.v. + 2 digits)

• sensitivity: 100V(<50Hz), 50V(50...400Hz); 15V(401Hz...10kHz)

## Electric security:

- measurement category
- protection class acc. to EN 60529

CAT III 600V acc. to EN 61010-1:2004  
IP40

## Other technical data:

- power supply
- display
- continuity test
- diode test
- over range indication
- sampling rate
- input impedance
- clamp size
- auto power OFF
- dimensions
- weight
- accordance with following standards
- quality standard

9V battery type 6LR61  
4000 counts, backlit LCD  
I<0,5mA, sound signal for R<50Ω  
I=0,3mA, U<sub>o</sub>=1,5V DC  
0L displayed  
2 times per second  
10MΩ (V DC and V AC)  
opening 30mm (1,2")  
approx. 30 min.  
197 x 70 x 40 mm  
183 g  
EN 61010-1:2004  
EN 61010-2-032  
ISO 9001

## Rated operational conditions:

- operating temperature 0...+40°C
- storage temperature -20...+60°C
- operating humidity max 80% up to 31°C  
decreasing linearly to 50% at 40°C
- operating altitude max 2000 m

## AC current measurement

Range	Resolution	Accuracy CMP-400	Accuracy CMP-401
4,000 A	0,001 A	±(2,5% m.v. + 12 digits)	no range
40,00 A	0,01 A	±(2,5% m.v. + 8 digits)	±(2,5% m.v. + 8 digits)
400,0 A	0,1 A	±(2,8% m.v. + 8 digits)	±(2,8% m.v. + 5 digits)

• frequency range: 50...60Hz.

## DC current measurement (CMP-401 only)

Range	Resolution	Accuracy
40,00 A	0,01 A	±(2,5% m.v. + 5 digits)
400,0 A	0,1 A	±(2,8% m.v. + 5 digits)

## AC voltage measurement

Range	Resolution	Accuracy CMP-400	Accuracy CMP-401
400,0 mV	0,1 mV	no range	±(1,5% m.v. + 30 digits)
4,000 V	0,001 V		
40,00 V	0,01 V	±(1,8% w.m. + 8 digits)	±(1,5% m.v. + 5 digits)
400,0 V	0,1 V		
600,0 V	0,1 V	±(2,5% w.m. + 8 digits)	±(2% m.v. + 5 digits)

• frequency range: 50...400Hz.

## DC voltage measurement

Range	Resolution	Accuracy
400,0 mV	0,1 mV	±(0,8% m.v. + 2 digits)
4,000 V	0,001 V	
40,00 V	0,01 V	±(1,5% m.v. + 2 digits)
400,0 V	0,1 V	
600,0 V	0,1 V	±(2% m.v. + 2 digits)

## Resistance measurement

Range	Resolution	Accuracy
400,0 Ω	0,1 Ω	±(1,0% m.v. + 4 digits)
4,000 kΩ	0,001 kΩ	
40,00 kΩ	0,01 kΩ	±(1,5% m.v. + 2 digits)
400,0 kΩ	0,1 kΩ	
4,000 MΩ	0,001 MΩ	±(2,5% m.v. + 3 digits)
40,00 MΩ	0,01 MΩ	±(3,5% m.v. + 5 digits)

## Capacitance measurement (CMP-401 only)

Range	Resolution	Accuracy
40,00 nF	0,01 nF	±(4% m.v. + 20 digits)
400,0 nF	0,1 nF	
4,000 pF	0,001 pF	±(3% m.v. + 5 digits)
40,00 pF	0,01 pF	
100,0 pF	0,1 pF	±(4% m.v. + 10 digits)

„m.v.”- measured value