

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



CMP-400 and 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

Electric security:

- measurement category CAT III 600V acc. to EN 61010-1:2004
- protection class acc. to EN 60529 IP40

Other technical data:

- power supply 9V battery type 6LR61
- display 4000 counts, backlit LCD
- continuity test <math>I < 0,5\text{mA}</math>, sound signal for $R < 50\Omega$
- diode test $I = 0,3\text{mA}$, $U_i = 1,5\text{V DC}$
- over range indication OL displayed
- sampling rate 2 times per second
- input impedance $10\text{M}\Omega$ (V DC and V AC)
- clamp size opening 30mm (1,2")
- auto power OFF approx. 30 min.
- dimensions 197 x 70 x 40 mm
- weight 183 g
- accordance with following standards EN 61010-1:2004
EN 61010-2-032
ISO 9001
- quality standard

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

Additional equipment of CMP-400/401:

- AC line splitter (AC-16)

WAADAAC16



Frequency measurement

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

- sensitivity: 100V(<math>< 50\text{Hz}</math>), 50V(50...400Hz); 15V(401Hz...10kHz)

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	±(1,8% w.m. + 8 digits)	±(1,5% m.v. + 5 digits)
40,00 V	0,01 V		
400,0 V	0,1 V	±(2,5% w.m. + 8 digits)	±(2% m.v. + 5 digits)
600,0 V	0,1 V		

- 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	±(1,5% m.v. + 2 digits)
40,00 V	0,01 V	
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	±(1,5% m.v. + 2 digits)
40,00 kΩ	0,01 kΩ	
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	±(3% m.v. + 5 digits)
4,000 μF	0,001 μF	
40,00 μF	0,01 μF	
100,0 μF	0,1 μF	±(4% m.v. + 10 digits)

„m.v.”- measured value