

HT4012 - HT4014

AMPEROMETRIC CLAMPS AC 400A IN AUTORANGE

The HT4012 and HT4014 amperometric clamps run mainly AC current measurements up to 400A (HT4014 in total Autorange), AC/DC voltage, resistance and continuity test. Thanks to the practical and patented rubber protection which covers the clamp is possible to enter a tip into the slot free and, therefore, operating with one hand, is ensured simplicity and speed during measurements. The models are compliance with IEC/EN61010-1 CAT III 600V and are ideal for measurements in both civil and industrial environments

FUNCTIONS	HT4012	HT4014
AC/DC voltage	•	•
AC current	•	•
Resistance and continuity test	•	•
Frequency		•
Diode test	•	•
Data HOLD	•	•
MAX/MIN		•
Selection of manual range	•	
Backlight		•
Bargraph		•
AutoPowerOFF	•	•

TECHNICAL SPECIFICATIONS	HT4012	HT4014
DC Voltage		
Measurement range:	1mV ÷ 600V	1mV ÷ 600V
Basic accuracy:	±(0.8%rdg + 2dgt)	±(0.8%rdg + 2dgt)
AC Voltage		
Measurement range:	1mV ÷ 600V	0.1mV ÷ 600V
Basic accuracy:	±(1.0%rdg + 3dgt)	±(1.0%rdg + 3dgt)
AC Current		
Measurement range:	0.1A ÷ 400A	0.1A ÷ 400A
Basic accuracy:	±(2.0%rdg + 10dgt)	±(2.0%rdg + 10dgt)
Resistance and continuity test		
Measurement range:	0.1Ω ÷ 20MΩ	0.1Ω ÷ 40MΩ
Basic accuracy:	±(1.0%rdg + 3dgt)	±(1.0%rdg + 3dgt)
Buzzer:	<25Ω	<40Ω
Frequency with test leads		
Measurement range:		1Hz ÷ 400kHz
Basic accuracy:		±(8%rdg + 3dgt)

GENERAL SPECIFICATIONS	
Display:	LCD 3 3/4 dgt, 2000 points (HT4012) LCD 3 3/4 dgt, 4000 points (HT4014)
Conversion :	mean value
Power supply:	2x1.5V batteries type AAA LR03
AutoPowerOFF:	after 10 min of idleness (HT4012) after 30 min of idleness (HT4014)
Safety	IEC/EN 61010-1
Category of measurement:	CAT III 600V
Insulation:	double insulation
Pollution degree:	2
Max altitude:	2000m
Max diameter of clamped cable:	30mm
Dimensions (LxWxH):	205x64x39mm
Weight (included batteries)	280g

ACCESSORIES	Code
Standard	
Couple of test leads	4413-2
Carrying bag	B80
Rubber clamp protection	
Batteries	
User manual	





HT4014

Rel. 1.01 of 23/10/07

AC 400A autorange clamp meter

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1. ELECTRICAL SPECIFICATIONS

Accuracy is given as \pm (% of reading + no. of least significant digits) at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$, with relative humidity Less than 80% R.H.

DC VOLTAGE

Range	Resolution	Accuracy	Overload Protection
400mV	0.1mV	$\pm(0.8\%rdg+2dgt)$	660V DC/AC RMS
4V	1mV		
40V	10 mV		
400V	100mV		
600V	1V	$\pm(1.0\%rdg+2dgt)$	

Input Impedance: 10M Ω to 100 M Ω (400 mV)

AC VOLTAGE

Range	Resolution	Accuracy 50~500Hz	Overload Protection
400mV	0.1mV	$\pm(1.0\%rdg+50dgt)$ (40 - 60 Hz)	660V DC/AC RMS
4V	1mV	$\pm(1.0\%rdg+3dgt)$	
40V	10 mV		
400V	100mV		
600V	1V	$\pm(1.2\%rdg+3dgt)$	

Input Impedance: 10M Ω to 100 M Ω (400 mV)

AC CURRENT

Range	Resolution	Accuracy 50 ~ 60Hz	Overload Protection
40A	0.01A	$\pm(2.0\%rdg+10dgt)$	600A RMS (60 second)
400A	0.1A		

RESISTANCE

Range	Resolution	Accuracy	MAX. Test Voltage	Overload Protection
400 Ω	0.1 Ω	$\pm(1.0\%rdg+5dgt)$	About 1.5 VDC	600V RMS (60 second)
4k Ω	1 Ω	$\pm(1.0\%rdg+3dgt)$	About 0.45 VDC	
40k Ω	10 Ω			
400k Ω	100 Ω			
4M Ω	1k Ω			
40M Ω	10k Ω	$\pm(3.0\%rdg+3dgt)$		

FREQUENCY

Range	Resolution	Accuracy	MAX. Test Voltage	Overload Protection
4kHz	1Hz	$\pm(0.8\%rdg+3dgt)$	3V RMS	600V AC/DC RMS
40kHz	10Hz			
400kHz	100Hz			
4MHz	1kHz			
40MHz	10kHz		5V RMS	





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DIODE CHECK

Range	Resolution	Accuracy	Test Voltage
Diode	1mV	$\pm(0.5\%rdg+3dgt)$	<3.3VDC

Overload protection: 600V RMS

AUDIBLE CONTINUITY TEST

Range	Accuracy	Test Voltage
Continuity	Built-in buzzer sounds when reading is below approx. 40 Ω , the buzzer turns off when reading is greater than 40 Ω .	<1.5VDC

Overload protection: 600V RMS





2. GENERAL SPECIFICATIONS

Display:

- The liquid crystal display (LCD) is 3 $\frac{3}{4}$ digits with maximum reading 3999 counts.
- Decimal point and symbol indication
- Backlight function
- Analogical Bargraph
- Automatic polarity indication.


Function:

- DCV, ACV, ACA, OHM, HZ, Diode check and Audible continuity tests.

Measuring rate:

- 2 times per second; 20 times per second for analogical bargraph

Low battery indicator:

- The " " appears when the battery voltage drops is low

Operating temperature:

- 5 °C to 40 °C, 0 - 80 % R.H.

Storage temperature:

- -10 °C to 60 °C, 0 - 70 % R.H.

General informations:

- Indoor use
- Altitude up to 2000m
- Pollution degree: 2
- Insulation: class 2 (double insulation)
- Max. diameter conductor size : 30 mm

Power supply:

- 2 x 1.5V IEC R03 AAA carbon-zinc or alkaline type batteries
- AutoPowerOFF function for more of 30 minutes of don't work

Dimension:

- 205 (H) x 64 (W) x 39 (L) mm

Weight:

- 280 grams with batteries included.

Applied standards:

- LVD: EN 61010-1 CAT III 600V
- EMC: EN60326

This product conforms to the prescriptions of the European directive on low voltage 2006/95/EEC and to EMC directive 2004/108/EEC