

Data Sheet

AC71

Automatic AC Clamp Multimeter



The automatic everything clamp meter

- AutoTect™ Function – automatically selects ac volts, dc volts or resistance depending upon measurement point
- Automatic bright blue backlight turns on when a dark environment is sensed
- Easy one-button control
- AC current to 600 A
- AC volts to 750 V
- DC volts to 1000 V
- Resistance and Continuity Beeper
- Data Hold
- Conductor size 1.25 in, 32 mm, 750 MCM
- Safety rated to CAT II 1000 V, CAT III 600 V, cCSAus listed

The AC71 is a digital clamp multimeter with two additional unique features: AutoTect™ and automatic backlight. The AutoTect™ feature automatically senses what type of measurement is being made when the test leads are placed across a measurement point. There is no knob to turn. The meter knows what is being measured and the digital display shows the measured value along with the associated unit icon. AutoTect™ also utilizes a lower input impedance. This helps determine if voltage is from leakage (called ghost voltages) or a hard connection. Any ghost voltages will be zeroed out by the lower input impedance.

The automatic backlight has a sensor that recognizes when the ambient light becomes dim and turns itself on. A bright blue backlight is then available to easily read the measurement value on the digital display.

The AC71 is a complete multimeter measuring AC and DC volts, resistance, continuity in addition to the AC current. A useful tool for the electrician, plant maintenance, HVAC or field service technician.

Specifications

Function	Range	Accuracy
Electrical Specifications ± (% reading + number of digits) at 23 °C ± 5 °C at <80 % R.H. Temperature Coefficient: add 0.2 x (Specified Accuracy)/°C, < 18 °C, >28 °C		
Voltage		
Voltage AC (50 to 500 Hz)	1.3 V to 750.0 V	±(1.5% + 3 dgt)
Voltage DC	1.8 V to 1000.0 V -0.6 V to -1000.0 V	±(1% + 2 dgt) ±(1% + 4 dgt)
Overvoltage Protection	1000 V dc/750 V ac	
Input Impedance ≥	4 kΩ for input voltage up to 30 V. Impedance increases with input voltage to approximate 300 kΩ at 1000 V/277 kΩ at 750 V ac.	
Resistance		
Resistance and Continuity	0.0 Ω to 99.9 Ω 100.0 Ω to 2000 Ω	±(2% + 1 Ω) ±(2% + 2 dgt)
Overload Protection	1000 V dc / 750 V rms	
Maximum Open Circuit Voltage	1.5 V	
Continuity Check		
Internal sounds activate if the resistance of the circuit under test is less than 25 Ω. It will then turn off if the resistance is increased beyond 150 Ω. Temperature coefficient multiply by 1.5 when operating temperature is 40 °C to 50 °C.		



Specifications *cont.*

Function	Range	Accuracy
AC Current		
AC Current (50 to 60 Hz)	0.0 to 60.0 A	± (1.9% + 2 A)
	60.0 to 400.0 A	± (1.9% + 5 A)
	401 to 500.0 A	± (2.5% + 7 A)
	501 to 600.0 A*	± (3% + 10 A)
Overload Protection	0 to 500 A: Continuous operation	
* 501 A to 600 A: 10 minutes maximum followed by 10 minute cooling period		

General Specifications

Display	6000 digit large scale liquid crystal display (LCD)
Measuring Rate	5 times per second
Overrange Display	OL is displayed
Automatic Power Off Time	Approximately 30 minutes after power on
Low Battery Indication	The battery symbol is displayed when the battery voltage drops below the operating level for accurate results.
Power	Single standard 9 V battery, NEDA160A
Battery Life	250 hours with an alkaline 9 V battery
Environmental	Indoor use
Operating Temperature	0 °C to 30 °C at ≤ 80 % R.H. 30 °C to 40 °C at ≤ 75 % R.H. 40 °C to 50 °C at ≤ 45 % R.H.
Storage Temperature	-20 °C to 60 °C at 0 to 80 % R.H. (battery removed)
Altitude	2000 m (6562 ft)
Conductor Size	32 mm diameter (1.3 in)
Max. Operation Time	Delay Time = 30s for input ≤ 30 V
Shock Vibration	Sinusoidal vibration per MIL-PRF-28800F (5 to 55 Hz, 3 G maximum)
Agency Approvals	CE, cCSAus
Safety	Conforms to EN61010-1:2001; CAT II 1000 V, CAT III 600 V, Pollution degree 2, Class 2
EMC	Conforms to EN61326-1. This product complies with requirements of the following European Community Directives: 89/ 336/ EEC (Electromagnetic Compatibility) and 73/ 23/ EEC (Low Voltage) as amended by 93/ 68/ EEC (CE Marking). However, electrical noise or intense electromagnetic fields in the vicinity of the equipment may disturb the measurement circuit. Measuring instruments will also respond to unwanted signals that may be present within the measurement circuit. Users should exercise care and take appropriate precautions to avoid misleading results when making measurements in the presence of electronic interference.

No waiting.

No shipping charges.

No hassle warranty

Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that a Meterman test tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.



Included accessories

Test leads, carrying case and users manual

Optional accessories

TL36 - Heavy duty test leads with threaded alligator clips

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