

## 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
<b>Electrical Specifications</b> ± (% 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		
<b>Voltage</b>		
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.	
<b>Resistance</b>		
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	
<b>Continuity Check</b>		
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
<b>AC Current</b>		
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

<b>Display</b>	6000 digit large scale liquid crystal display (LCD)
<b>Measuring Rate</b>	5 times per second
<b>Overrange Display</b>	OL is displayed
<b>Automatic Power Off Time</b>	Approximately 30 minutes after power on
<b>Low Battery Indication</b>	The battery symbol is displayed when the battery voltage drops below the operating level for accurate results.
<b>Power</b>	Single standard 9 V battery, NEDA160A
<b>Battery Life</b>	250 hours with an alkaline 9 V battery
<b>Environmental</b>	Indoor use
<b>Operating Temperature</b>	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.
<b>Storage Temperature</b>	-20 °C to 60 °C at 0 to 80 % R.H. (battery removed)
<b>Altitude</b>	2000 m (6562 ft)
<b>Conductor Size</b>	32 mm diameter (1.3 in)
<b>Max. Operation Time</b>	Delay Time = 30s for input ≤ 30 V
<b>Shock Vibration</b>	Sinusoidal vibration per MIL-PRF-28800F (5 to 55 Hz, 3 G maximum)
<b>Agency Approvals</b>	CE, cCSAus
<b>Safety</b>	Conforms to EN61010-1:2001; CAT II 1000 V, CAT III 600 V, Pollution degree 2, Class 2
<b>EMC</b>	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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**The right tool, everyday.™**

### Meterman Test Tools

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