



MULTIMETERS & CLAMPMETERS


REVISION 1

Megger® AV0300 Series Digital Multimeters



Designed for Electricians

- Fully auto ranging
- Large display characters
- Separate battery and fuse cover
- Data hold
- Min/Max store
- IEC 61010 compliant
- Suitable for applications to CATIII 600 V

DESCRIPTION

The AV0300 range of Megger® digital multi-meters are tough compact instruments designed for the contracting electrician, but are also suitable for a wide range of applications and users.

Both instruments offer a range of measurement modes for AC and DC applications, resistance and current measurement. The AV0300 series multi-meters have tough rubber armoured cases offering the maximum amount of protection from the extreme use found in modern industrial environments. They draw on extensive experience of Megger® engineers in designing safe reliable instruments for the electrical industry.

Neither of the instruments are burdened with functions that never get used. This keeps the instruments simple to operate without the continued need to refer to the user manual.

Auto-ranging

Every measurement range is fully auto-ranging. Simply switch on the instrument and start testing, leaving hands free for holding probes, or hanging onto ladders.

Separate Battery/Fuse compartment

The battery and fuse compartment are accessed by a separate cover on the back. This allows both battery and fuses to be replaced without opening the main instrument body, and if the meter is sealed with a calibration seal, will not break the seal and invalidate the calibration. A problem found on most commonly available multi-meters.



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Large clear display

The LCD display has large high contrast 3 1/2 digit display which are easily read from a distance. Additionally the AV0310 has a backlit LCD for use in poor lighting and a bar graph range showing the percentage of range used.

Data HOLD

This allows a displayed result to be held on the display until needed, rather than trying to remember a measurement. The result will be held until the HOLD button is pressed again, or until the unit switches off.

Mode

When making current measurements the mode function allow the selection of AC or DC measurement.

MAX/MIN (AV0310 only)

The Max/Min function on the AV0310 freezes the maximum or minimum measured result on the screen. The display does not have to be continually watched to capture a momentary increase or fall in circuit voltage, resistance or current.

Voltage measurement

Both AC and DC voltage measurement is possible with the instrument auto ranging to match the voltage at the test probes. Voltage measurements up to 1000V are permitted without damage to the instrument.

Current measurement

Three ranges are provided for current measurement of either AC or DC current from 0.1uA to 10A. Fused inputs protect both the user and the instrument in the case of excess current.

SPECIFICATIONS

Insulation: Class2, Double insulation.

Overvoltage category: (AV0300/310) : CATIII 600V / CATII1000V

Display

AV0300: 4000 counts LCD display, 25.4mm high

AV0310: 4000 counts LCD display, 20mm high

Backlight

AV0310 only

Polarity : Automatic, (-) negative polarity indication.

Over-range : "OL" mark indication.

Low battery indication: A Battery symbol is displayed when the battery voltage drops below the operating level.

Measurement rate: 2 times per second nominal.

Auto power off AV0300: Meter automatically shuts down after approx. 15 minutes of inactivity.

AV0310: Meter automatically shuts down after approx. 30 minutes of inactivity.



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Operating environment : -10°C to 50°C (14°F to 122°F) at < 70 % relative humidity.

Storage temperature : -30°C to 60°C (-4°F to 140°F) at <80 % relative humidity.

Relative humidity : 90% (0°C to 30°C); 75% (30°C to 40°C); 45% (40°C to 50°C)

For inside use, max height : Operating: 3000m Storage 10,000m

Pollution degree 2

AVO300 Digital Multimeter

Resistance, continuity and Diode testing

Resistance can be measured directly on the ohms range from 0ohms up to 1.999Mohms. A continuity buzzer range is also available for checking low resistance between two points. The buzzer sounding if the resistance is less than 50ohms (35ohms on the AVO310). Additionally a diode range exists for testing forward and reverse bias operation of transistors and diodes.

Additional features

A low battery indicator warns when batteries are low, and an auto-off function ensures no unnecessary battery wastage occurs if accidentally left on. A built-in rear stand provides both a bench stand for comfortable use on the bench, as well as extending round 180° to act as a hanging bracket.

Product selection table	AVO300	AVO310
AC Voltage	1000 V	1000 V
DC Voltage	1000 V	1000 V
AC Current	10 A	10 A
DC Current	10 A	10 A
Resistance 0.1Ω to 40 MΩ	Y	Y
Diode test	Y	Y
Fast continuity buzzer	Y	Y
Auto-ranging	Y	Y
Data-hold	Y	Y
Max/Min -	-	Y
Backlight	-	Y
Tough Rubber Armoured case	Y	Y
Separate fuse and battery cover	Y	Y
Integral Stand/Hanger	Y	Y
Probe holder	Y	Y
Auto power down	Y	Y
Battery Low Warning	Y	Y
Base Accuracy	1%	1%
Battery type	9V PP3 (LR61)	
Temperature	-10°C to +50°C	
Installation category	600V CATIII	
IEC 61010	Y	Y



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LH41 AC/DC LOW CURRENT CLAMP METER (LEM)



The compact, accurate ac/dc current clamp meter

The compact size of the LH41 makes it ideal for taking general measurements on small conductors. Its excellent accuracy and resolution of 1 mA offers exceptional performance at a reasonable price.

If you're working on battery-based systems monitoring of load current on small and medium AC and DC loads the LH41 is an excellent choice. Its capability for comparison of dc sensor and control circuits make it the ideal troubleshooting tool.

- Easy use autoranging ac/dc leakage current measurements from 10 mA to 40 A
- High 1 mA current resolution for quick circuit comparison on sensor and control circuits
- Patented jaw design for high accuracy low dc current measurement ensures no interference from other circuits
- Push button dc Auto Zero for correct measurement every time
- Battery saving auto power off function
- 'Carry everywhere' pocket size lightweight design
- Convenient Display Hold for capturing measurement in inaccessible spots
- 2-Year Warranty