Auto-Ohm 100 Series 2

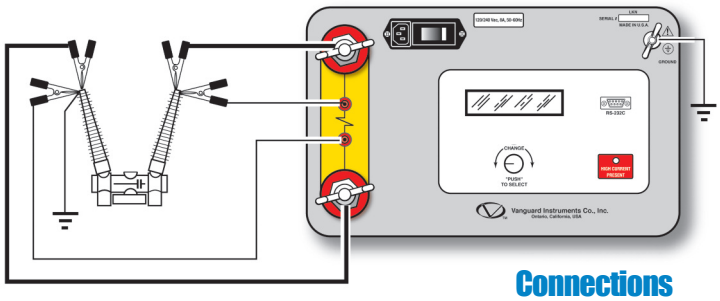
True DC Micro-Ohmmeter

Vanguard Instruments Company

www.vanguard-instruments.com

Accurately

- Inexpensive
- Reliable
- Lightweight
- Easy to Use



Connections

Auto-Ohm 100 Series 2

The Auto-Ohm 100 S2 is Vanguard's third-generation, microprocessor-based, true DC micro-ohmmeter. It is designed for testing EHV circuit-breaker contact resistances, bushing contact joints, or for any low-resistance measuring application. The Auto-Ohm 100 S2 can accurately measure resistances ranging from 1 micro-ohm to 300 milli-ohms. It can output a test current from 10 Amperes to 100 Amperes.

The Auto-Ohm 100 S2 applies a true DC current from 10A to 100A to the resistance load to be tested. Any test current setting can be selected by using the function control knob on the front panel. The Auto-Ohm 100 S2 controls the test current's rise and fall rates by using a switching DC power supply and a current regulator circuit. An Auto Test Mode is also available and can be initiated simply by applying the sensor cables' leads across the two points of interest. This feature is very convenient when measuring a sequence of several resistance values in a breaker contact.

Since a true DC ramped current is passed through the breaker contacts, no magnetic transient is induced into the breaker's current transformer. This can prevent the risk of inductively tripping a breaker control (bus differential relay). The resistance reading is displayed directly in micro-ohms or milli-ohms. No calculations are required to compensate for lead resistances when using the Auto-Ohm 100 S2.

The Auto-Ohm 100 S2 features a back-lit LCD screen (1-inch high, 16 characters by 2 lines) that is viewable in both bright sunlight and low-light levels. The resistance reading is displayed on the screen until the next test is initiated. The last three resistance measurements are stored internally and can be displayed on the LCD screen. An RS-232C interface port is also provided for factory calibration and diagnostic testing.

The Auto-Ohm 100 S2 is furnished with two 30-foot test cables. Fifteen-foot test cables are also available as an option. Both cables are terminated with quick disconnect clips. Heavy-duty, welding-type, C-clamps are available as an optional accessory. These can be used to connect the test cable leads to a wide variety of bushing sizes, bus-bars and other conductors requiring low-resistance test contacts.

FEATURES

- 10 to 100 Amperes true continuous DC current
- Automatic control of current rise and fall times
- Digital resistance readings from 1 micro-ohm to 300 milli-ohms
- Stores and can display last 3 readings
- Weighs less than 21 lbs (9.5 Kg)

Accessory Clamps and Handspike

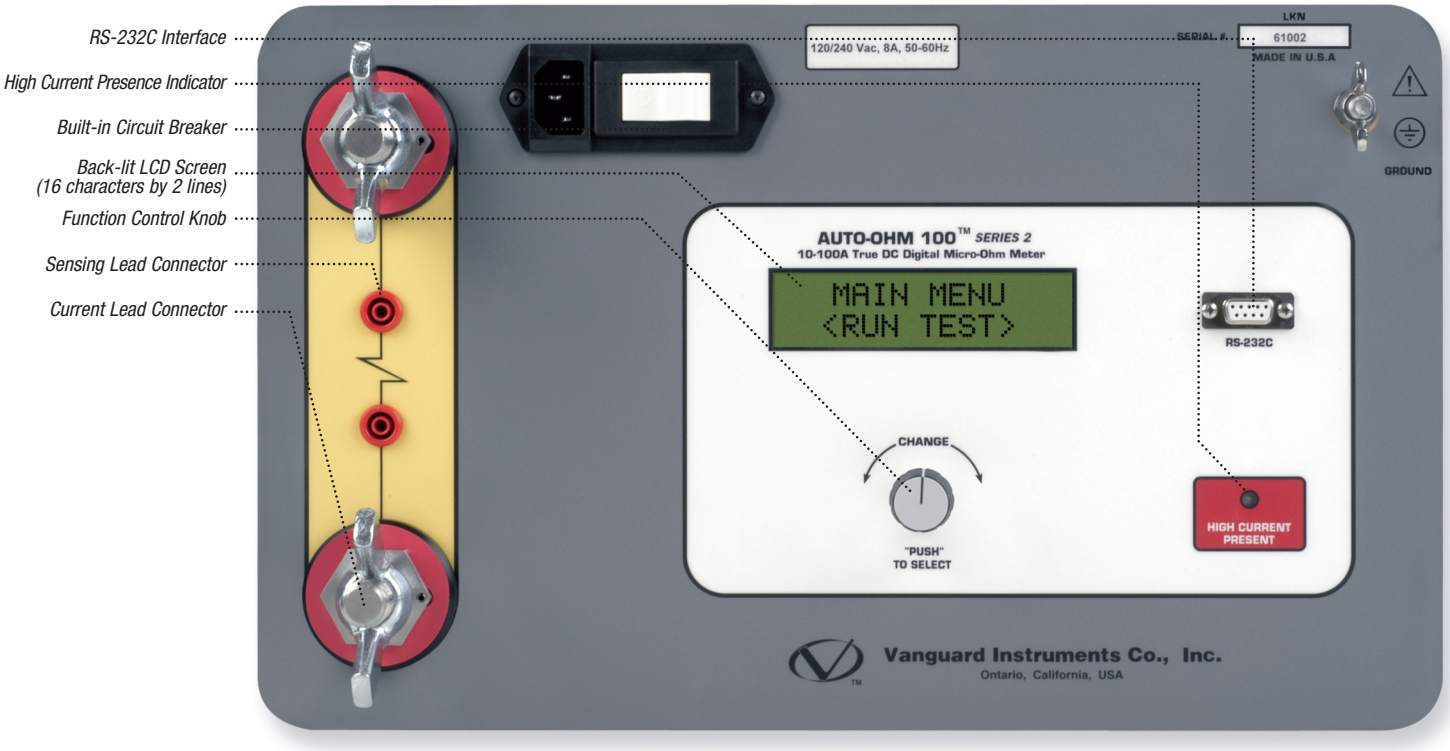
Ordering Information

Auto-Ohm 100 Series 2 True DC Micro-ohmmeter

AUTO-OHM 100 S2 & 30-ft Test Cable	Part No: AUTO-OHM 100 S2
AUTO-OHM 100 S2 Carrying Case	Part No: AUTO-OHM 100 S2 Case
15-foot Test Cable	Part No: AUTO-OHM S2 Cable-15ft
30-foot Test Cable	Part No: AUTO-OHM S2 Cable-30ft
C-Clamp Set (2 clamps)	Part No: AUTO-OHM S2 C-Clamps 30ft
Handspike Set (2 probes)	Part No: Handspike

True DC Micro-ohmmeter

Measure *Resistance from 1 micro-ohm to 300 milli-ohms*



SPECIFICATIONS

TYPE	Portable micro-ohmmeter
PHYSICAL SPECIFICATIONS	16.8"W X 12.6"H x 12.0"D (42.7 cm x 32.0 cm x 30.5 cm); Weight: less than 21 lbs (9.5 kg)
INPUT POWER	100 – 240 Vac, 50/60 Hz
RESISTANCE READING RANGE	1 micro-ohm – 300 milli-ohms (1 micro-ohm resolution); Accuracy: ±1% reading, ± 1 count
TEST CURRENT RANGE	Thermally-protected DC power supply, 10 Amperes – 100 Amperes
TEST DURATION	5 seconds – 120 seconds, selectable
DISPLAY	1-inch high back-lit LCD Screen (16 characters by 2 lines); viewable in bright sunlight and low-light levels
INTERNAL TEST RECORD STORAGE	Stores and can display last 3 readings
COMPUTER INTERFACE	RS-232C port (19,200 Baud) for factory calibration and diagnostics
SAFETY	Designed to meet IEC61010 (1995), UL61010A-1, CSA-C22.2 standards
ENVIRONMENT	Operating: -10°C to 50° C (15°F to +122° F); Storage: -30° C to 70° C (-22°F to +158° F)
CABLES	30-foot (#1AWG) test cables, ground cable, power cord
OPTIONS	Transportation case, 15-foot test cables, C-clamps, Handspike
WARRANTY	One year on parts and labor

Note: The above specifications are valid at nominal voltage and ambient temperature of +25°C (+77°F). Specifications are subject to change without notice.

Vanguard Instruments Company, Inc.

Vanguard Instruments Co., (VIC), was founded in 1991. Currently, our 28,000 square-foot facility houses Administration, Design & Engineering, and Manufacturing operations. From its inception, VIC's vision was, and is to develop and manufacture innovative test equipment for use in testing substation EHV circuit breakers and other electrical apparatus.

The first VIC product was a computerized circuit-breaker analyzer, which was a resounding success. It became the forerunner of an entire series of circuit-breaker test equipment. Since its beginning, VIC's product line has expanded to include microcomputer-based, precision micro-ohmmeters, single and three-phase transformer winding turns-ratio testers, winding-resistance meters, transformer tap-changing controllers, megaohm resistance meters, and a variety of other electrical utility maintenance support products.

VIC's performance-oriented products are well suited for the utility industry. They are rugged, reliable, accurate, user friendly, and most are computer controlled. Computer control, with innovative programming, provides many automated testing functions. VIC's instruments eliminate tedious and time-consuming operations, while providing fast, complex, test-result calculations. Errors are reduced and the need to memorize long sequences of procedural steps is eliminated. Every VIC instrument is competitively priced and is covered by a liberal warranty.

Vanguard Instruments Company, Inc.
1520 S. Hellman Ave. • Ontario, California 91761 USA • P 909-923-9390 • F 909-923-9391
www.vanguard-instruments.com