

ATO-600

Micro-ohm Meter



Vanguard Instruments Company

Accurately

FEATURES

- 10 to 600 Amperes Unfiltered Direct Current
- Digital Resistance Reading from 1 Micro-Ohm to 300 Milliohms
- Microprocessor based, No Adjustment is Required
- Store 4,000 Readings
- Computer Interface via RS-232C or USB Port



ATO-600

Microprocessor-controlled Accuracy and Reliability

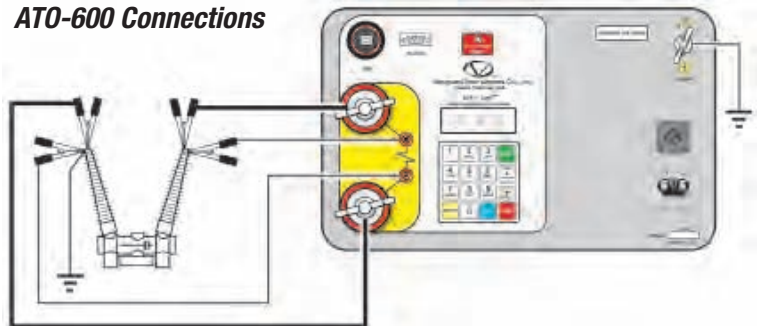
The ATO-600 micro-ohm meter measures EHV circuit-breaker contact resistance, bushing contact joints, or any low-resistance conductor path that requires testing. This microprocessor controlled micro-ohm meter can accurately measure low resistances ranging from 1 micro-ohm to 300 milliohms at any test current from 10A to 600A (see note 1). The digital readout displays directly in micro-ohms or milliohms. No calculation is required to compensate for lead resistances when using the ATO-600 meter. A custom switching power supply keeps the ATO-600 weight at 40 lbs (18.1 kg) make it ideal for field use.

The ATO-600 outputs an unfiltered direct current from 10A to 600A to the resistance load being measured. Test record input, test current and function selection is selected via the 16-key keypad located on the front panel. A typical resistance test allows the user to select a burn-in time from 5 second to 60 seconds. A second test mode, the Auto Test Mode, allows the user to initiate a test by simply applying the sensor cables leads across the two points of interest. This feature is handy when the operator needs to measure a sequence of several resistance values in a breaker contact.

The test current and micro-ohm readout displays on a 4-line by 20-character backlit LCD. Up to 63 records (each may contain up to 64 readings) can be stored in the ATO-600 FLASH EEPROM. Stored test reports can be recalled by the users for review or transferred to an IBM-compatible PC via the RS-232C or USB serial interface ports. A Windows-based software package (provided with each unit) allows the users to download test record to a PC. The user can then review, print or export test records.

The ATO-600 is supplied with two 15-ft current cables and two 15-ft sensing test leads. Optional custom cable length is also available to the users. Heavy-duty welding-type C-clamps are also available as an optional accessory, which allows the user to connect test-leads to a wide variety and sizes of bushings, bus-bars, and other conductors requiring low-resistance test contacts. The ATO-600 power supply is thermally protected. Contact-sensing inputs are protected against static-discharge damage.

ATO-600 Connections



Accessory Clamps

Ordering Information ATO-600

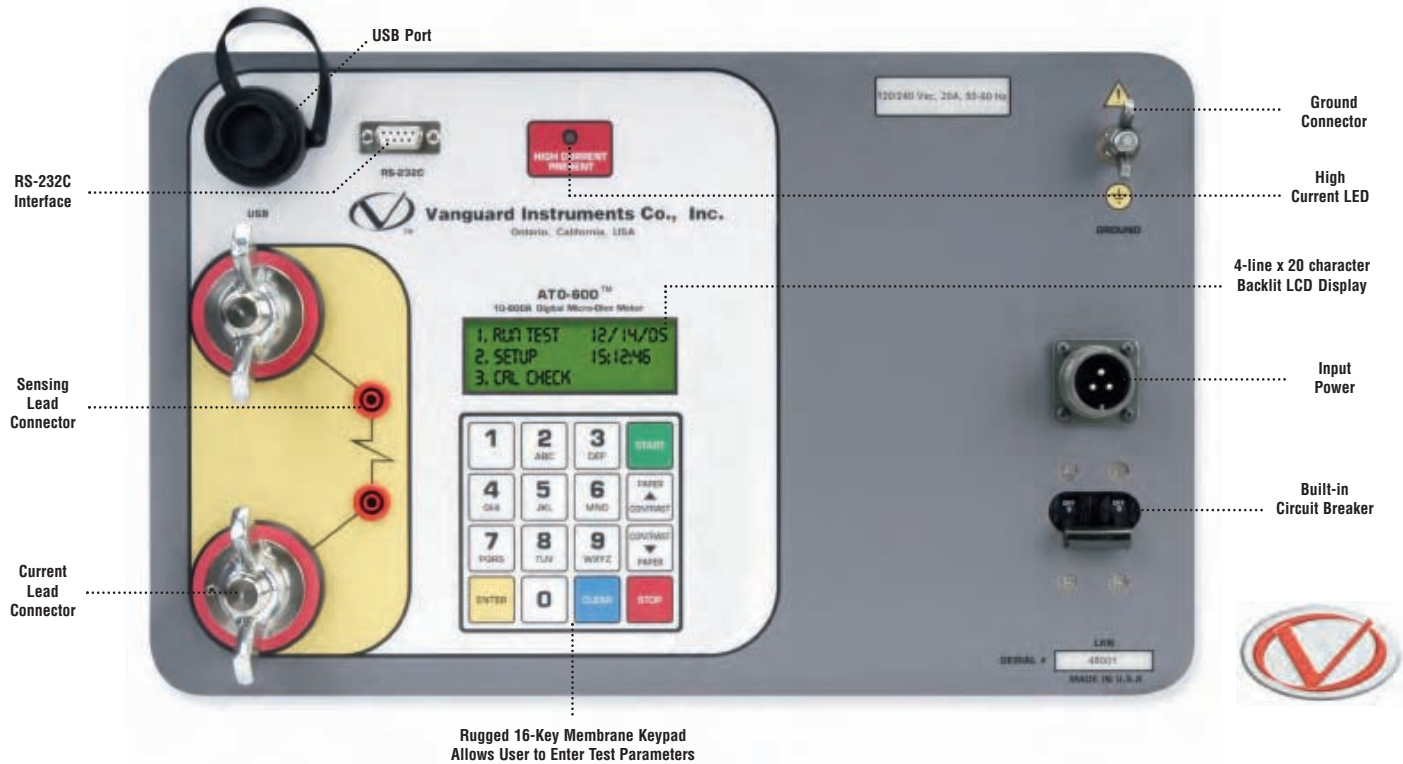
ATO-600 with 15-ft Test Cables
ATO-600 Shipping Case
15-foot Test Cable
30-foot Test Cable
C-Clamp Set (2 clamps)
Alligator Clamp Set (2 clamps)

Part No: ATO-600
Part No: ATO-600 Case
Part No: ATO-600 Cable-15ft
Part No: ATO-600 Cable-30ft
Part No: C-Clamps
Part No: Alligator-Clamps

Note 1: Testing at the full 600-ampere level may require use of the 200–240 Vac primary power input, but is otherwise unrestricted. A full 600-ampere test is only subject to the normal limitations imposed by test-lead resistances and the resistance of the device under test.

Special-Purpose Micro-ohmmeter

Measure Resistance from 1 Micro-ohm to 300 Milliohms



SPECIFICATIONS

TYPE	Special-purpose test equipment, portable, micro-ohmmeter
PHYSICAL SPECIFICATIONS	16.8" W by 12.6" H by 10.6" D (42.6 cm x 32.0 cm x 27 cm), Weight < 40 lbs (18.1 kg)
INPUT POWER	90 to 240 Vac 50/60 Hz
RESISTANCE READING RANGE	0.1 micro-ohm to 300 milliohms (4-digit resolution)
ACCURACY	±1% reading, ± 1 count
TEST CURRENT RANGE	10 Amperes to 600 Amperes, Selectable in 1 Ampere Steps
DISPLAY	Backlit LCD, 4 lines by 20 characters
KEYBOARD	Heavy-duty keypad: 10 number keys, 6 function keys
TEST RECORD STORAGE	Store 63 Records of up to 64 Readings
COMPUTER INTERFACE	One RS-232C Port, One USB Port
PC SOFTWARE	Windows® 95/98/NT/2000/XP-Based, included with purchase price
SAFETY	Designed to meet IEC61010 (1995), UL61010A-1, CSA-C22.2
ENVIRONMENT	Operating: -10°C to 50°C (15°F to 122°F); Storage: -30° C to 70°C (-22°F to 158°F)
CABLES	15-ft (#1/0 AWG) Current Cables and Sensing Cables
OPTIONS	Transportation Case
WARRANTY	One Year Parts & Labor, Post Warranty Service Contract Available

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
Reliability Through Instrumentation

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