

Digital 200A Micro-Ohmmeter

Model 6290



Measure low resistance with high accuracy

- ▶ Accurately measures low contact resistances with test currents up to 200A
- ▶ Measures resistances from 0 to 20m Ω
- ▶ Resolution of 0.1 $\mu\Omega$
- ▶ Analog bargraph indicator with backlit digital display
- ▶ Stores up to 200 test results
- ▶ USB interface
- ▶ Direct printout using DataView[®] software and a PC
- ▶ Rugged, light-weight and water-resistant

Our products are backed by over 100 years of experience in test and measurement equipment, and encompass the latest international standards for quality and safety.

**CALRIGHT
INSTRUMENTS**

The Right Source For Your Test & Measurement Needs

2222 Verus Street Suite C San Diego CA 92154 USA
Toll Free: 866.363.6634 Tel: 619.429.4545 Fax: 619.374.7012
Email: sales@calright.com <http://www.calright.com>

Low Resistance, High Accuracy

Model 6290



The AEMC® high-current Micro-Ohmmeter Model 6290 is a portable, microprocessor-controlled instrument. It has optimized filters and protection for measurements in electrical substation. The Model 6290 can be used to accurately measure very low contact resistances on high voltage circuit breakers, switches, busbars, etc., with test currents up to 200A. It employs the four-terminal Kelvin method to prevent errors caused by test leads and their contact resistances.

Measurement accuracy is assured through a state-of-the-art signal amplification system, offset-free with high long-term stability. Resistance readings are shown in the alphanumeric display with up to 4½-digit resolution. It allows measurement resistances up to 20mΩ, and resolution of 0.1μΩ.

Test currents may be adjusted by the operator and are displayed using both an analog bargraph indicator and digital display.

The Model 6290 has an internal memory for storing up to 200 readings. The USB interface may be connected to a computer to download the stored values. The high-current generation system is based on modern technology that allows for a significant decrease in both weight, 24.25 lbs (11 kg), and size. The case is made of hard plastic, highly resistant to impact and environmental conditions. Internal, thermal sensors, in all sensitive components, prevent damage to the instrument caused by overheating.

This is a rugged but lightweight instrument, and may be easily carried by one person. It is water-resistant and can be used under severe weather conditions (IP54 with closed lid) offering an excellent performance working both in the laboratory and out in the field.

▶ FEATURES

- ▶ Accurately measures low contact resistances with test currents up to 200A
- ▶ Measures resistances from 0 to 20mΩ
- ▶ Resolution of 0.1μΩ
- ▶ Analog bargraph indicator with backlit digital display
- ▶ Stores up to 200 test results
- ▶ USB interface
- ▶ Direct printout using DataView® software and a PC
- ▶ Rugged, lightweight and water-resistant
- ▶ Includes 20 ft long test cables with C clamps

▶ APPLICATIONS

- ▶ Test switchgear contact resistance
- ▶ Test circuit breaker contact resistance
- ▶ Test air frame bonding
- ▶ Test rail bonding
- ▶ Test pipeline bonding



Accessory case (supplied) includes one black and one red 20 ft Kelvin test lead with integral C clamp, one green ground lead and clamp, USB cable, power cord and user manual



The Right Source For Your Test & Measurement Needs

2222 Verus Street Suite C San Diego CA 92154 USA
Toll Free: 866.363.6634 Tel: 619.429.4545 Fax: 619.374.7012
Email: sales@calright.com <http://www.calright.com>

SPECIFICATIONS

MODEL	6290
ELECTRICAL	
Test Current Range	100A, 200A (True DC); Adjustable from 0 to 100%
Resistance Range	0 to 1999 $\mu\Omega$ (test current: up to 200A) 0 to 19.99m Ω (test current: up to 100A)
Accuracy	$\pm 0.5\%$ of Reading ± 2 cts
Resolution	0.1 $\mu\Omega$ for R < 200 $\mu\Omega$ 1 $\mu\Omega$ for R < 2000 $\mu\Omega$ 10 $\mu\Omega$ for R < 20m Ω
Output Voltage	3.5VDC @ 200A 4.5VDC @ 100A 5.8VDC (no load)
Max. Load Resistance	10m Ω @ 200A 30m Ω @ 100A
Measurement Principal	Four-terminal, Kelvin-type
Operation Time	Up to 1 minute of continuous use at 200A before thermal protection activates; Up to 15 minutes use at 100A before thermal protection activates
Thermal Protection	Protects all sensitive components, avoiding any damage due to overheating
Memory	Stores up to 200 measurements
Interface	USB
Display	Analog bargraph indicator with backlit digital display
Communication Software	DataView®
Power Supply	100 to 130VAC, 60Hz
MECHANICAL	
Dimensions	19.76 x 15.51 x 7.48" (502 x 394 x 190mm)
Weight	Approx. 24.25 lbs (11 kg)
ENVIRONMENTAL	
Operating Temperature	23° to 122°F (-5° to 50°C)
Storage Temperature	-13° to 149°F (-25° to 65°C)
Humidity	95% RH (non-condensing)
SAFETY	
Safety Rating	IEC61010-1
Environmental Protection	IP54 with closed lid
CE Mark	Pending



The Right Source For Your Test & Measurement Needs

2222 Verus Street Suite C San Diego CA 92154 USA
 Toll Free: 866.363.6634 Tel: 619.429.4545 Fax: 619.374.7012
 Email: sales@calright.com <http://www.calright.com>

SOFTWARE

DataView[®]

Data Analysis and Reporting Software



Features

- ▶ Configure from your PC
- ▶ Customize views, templates and reports to your exact needs
- ▶ Create and store a library of configurations that can be used with the Model 6290 as needed
- ▶ Display test results
- ▶ Print reports using standard included templates or custom templates you design



Index	Channel Name	Value	Units
1	Resistance @ (-) (-)	1.03	mΩ
2	Resistance @ (-) (+)	1.03	mΩ
3	Resistance @ (+) (-)	1.03	mΩ
4	Resistance @ (+) (+)	1.03	mΩ

Channel Name: Battery Strap
Measurement Date: 9/5/2007
Measurement Time: 8:57:47:300 AM
Instrument Model: 6290
Test Number: 1
Measurement Type: Resistance
Metal Type: ---
Measurement Range: 40 mΩ-Chen
Metal Coefficient: 3.99
Volts @: ---
Volts @: 1.06 mV
Current @: ---
Current @: 1.04 mA
Temp @: ---
Temp @: 1.015 A
Temp @: ---
Resistance @ (-) (-): 1.04 mΩ-Chen
Resistance @ (-) (+): 1.03 mΩ-Chen
Resistance @ (+) (-): 1.03 mΩ-Chen
Resistance @ (+) (+): 1.03 mΩ-Chen

Statistical presentation of measurements.

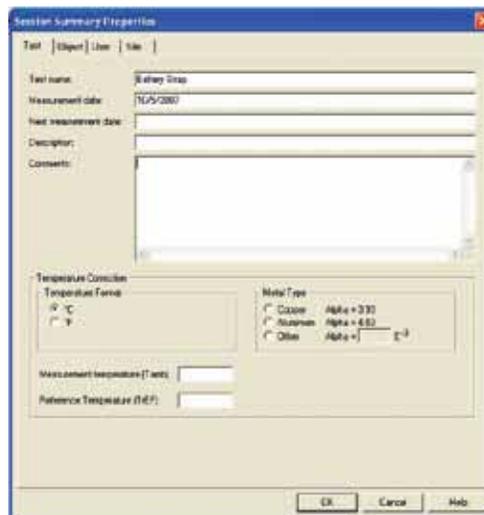


All set up functioning available from one screen.

Test #	Channel Name	Value	Units
1	Resistance @ (-) (-)	1.03	mΩ
2	Resistance @ (-) (+)	1.03	mΩ
3	Resistance @ (+) (-)	1.03	mΩ
4	Resistance @ (+) (+)	1.03	mΩ

Channel Name: Battery Strap
Measurement Date: 9/5/2007
Measurement Time: 8:57:47:300 AM
Instrument Model: 6290
Test Number: 1
Measurement Type: Resistance
Metal Type: ---
Measurement Range: 40 mΩ-Chen
Metal Coefficient: 3.99
Volts @: ---
Volts @: 1.06 mV
Current @: ---
Current @: 1.04 mA
Temp @: ---
Temp @: 1.015 A
Temp @: ---
Resistance @ (-) (-): 1.04 mΩ-Chen
Resistance @ (-) (+): 1.03 mΩ-Chen
Resistance @ (+) (-): 1.03 mΩ-Chen
Resistance @ (+) (+): 1.03 mΩ-Chen

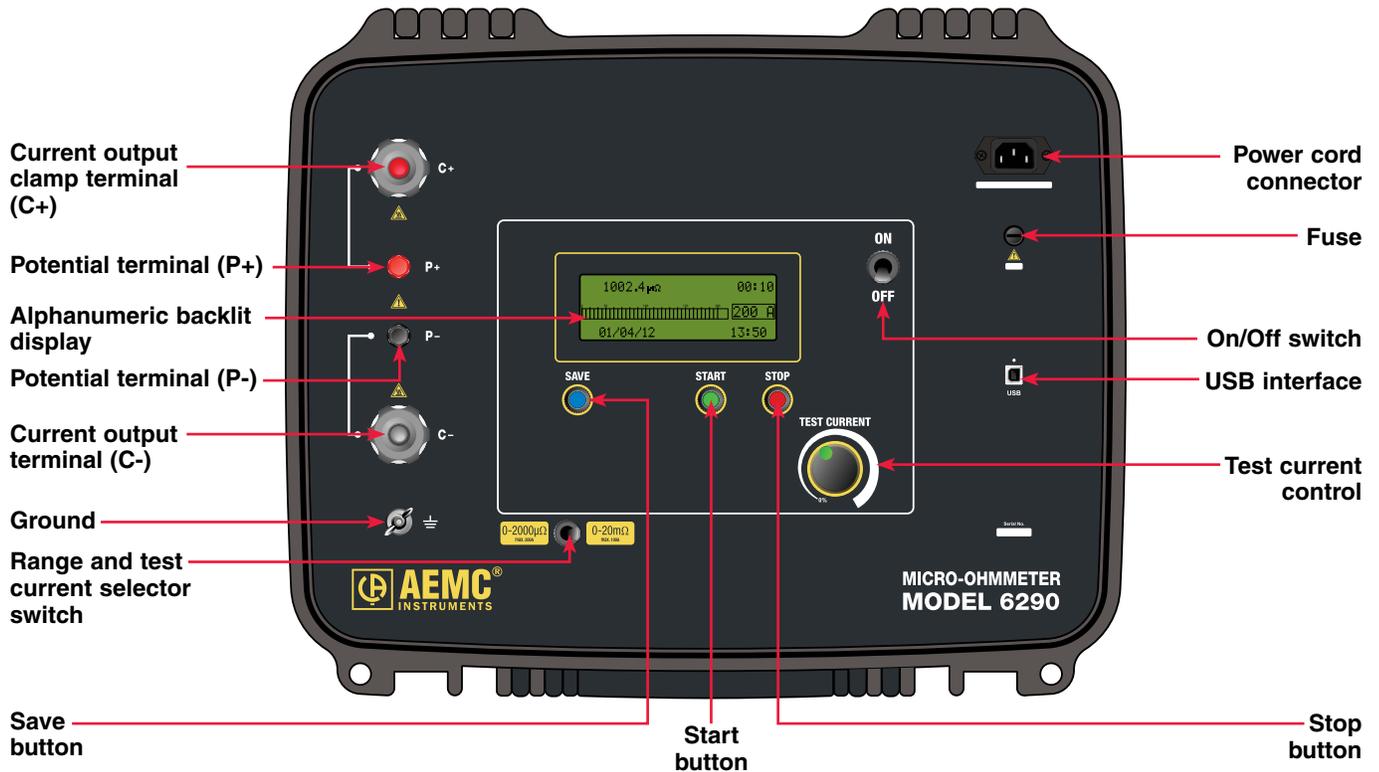
Clean, easy-to-read report of test results.



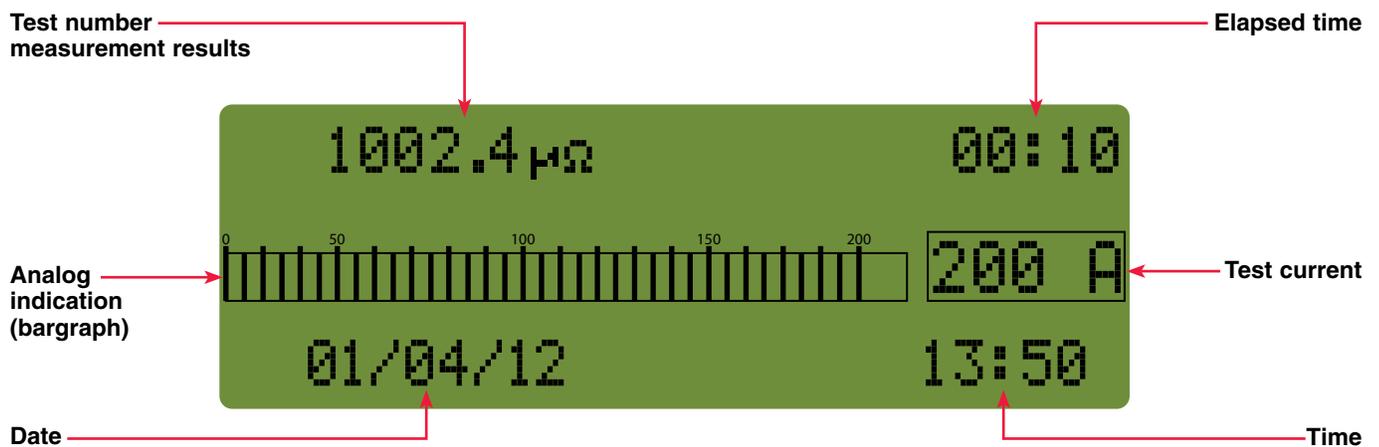
Easily documents statistics about user and test site to be stored with the data.

CONSTRUCTION

Model 6290



FUNCTIONAL DISPLAY



United States & Canada

Chauvin Arnoux, Inc.
d.b.a. AEMC® Instruments
200 Foxborough Blvd.
Foxborough, MA 02035 USA
(508) 698-2115 • Fax (508) 698-2118

Customer Support
for placing an order,
obtaining price & delivery
customerservice@aemc.com

Sales & Marketing Department
for general sales and marketing
information
sales@aemc.com
marketing@aemc.com

Repair & Calibration Service
for information on repair & calibration
repair@aemc.com

United States & Canada (continued)

Technical & Product
Application Support
for technical and application support
techinfo@aemc.com

Webmaster
for information regarding
www.aemc.com
webmaster@aemc.com

South America, Central America, Mexico & the Caribbean

Chauvin Arnoux, Inc.
d.b.a. AEMC® Instruments
15 Faraday Drive
Dover, NH 03820 USA
export@aemc.com

Australia & New Zealand

Chauvin Arnoux, Inc.
d.b.a. AEMC® Instruments
15 Faraday Drive
Dover, NH 03820 USA
international@aemc.com

All other countries

Chauvin Arnoux SCA
190, rue Championnet
75876 Paris Cedex 18, France
Tel 33 1 44 85 45 28
Fax 33 1 46 27 73 89
info@chauvin-arnoux.com
www.chauvin-arnoux.com

