

# Digital Micro-Ohmmeters



## FEATURES

- ▶ Selectable test currents from 10mA to 200A (model dependent)
- ▶ Resolutions to 0.1 micro-ohm
- ▶ Accuracies to 0.05%
- ▶ Large easy to read backlit display
- ▶ Automatic and software temperature compensation (model dependent)
- ▶ Automatic multipoint measurements
- ▶ Internal data storage of test results
- ▶ Analysis and report generation software (DataView®) included
- ▶ Built into a rugged field proven case
- ▶ Kelvin test cables included

*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.*

Technical Hotline: (800) 343-1391  
[www.aemc.com](http://www.aemc.com)

 **AEMC**<sup>®</sup>  
INSTRUMENTS  
CHAUVIN ARNOUX GROUP



# MODEL 6240



## FEATURES

- ▶ Reliable low resistance measurements
- ▶ Four-terminal Kelvin resistance measurement eliminates test lead resistance
- ▶ Measures up to  $4000\mu\Omega$  with 10A of test current
- ▶ 0.25% basic accuracy
- ▶  $1\mu\Omega$  resolution
- ▶ Direct reading, easy to operate
- ▶ Test current selection of 1mA, 10mA, 100mA, 1A and 10A
- ▶ Polarity reversal button
- ▶ Overload and input fuse protection
- ▶ Manufactured to international safety and environmental standards
- ▶ Automatic scaling and zeroing
- ▶ Large terminals accept banana plugs and spade lugs
- ▶ Rechargeable NiMH battery with internal charger (110/230V) that can be charged during operation
- ▶ Rugged, double insulated watertight case
- ▶ Includes DataView® software for instrument configuration, data storage, analysis and report generation

## APPLICATIONS

- ▶ Aerospace metallic coating resistance measurement
- ▶ Bonding verification on earth/ground systems
- ▶ Weld joint integrity verification
- ▶ Contact resistance measurement of breakers and switchgear
- ▶ Aircraft and rail bonding checks
- ▶ Wire to terminal connections and resistance checks
- ▶ Battery strap resistance checks
- ▶ Cable joint and bus bar connection checks
- ▶ Mechanical bond tests



## Product 2129.80 Includes

- 2 Kelvin clips, 10ft (10A - Hippo)
- 2 Kelvin Probes 10ft (1A, spring loaded)
- NiMH rechargeable battery pack\*
- Optical USB cable
- US 115V power cord
- DataView® software
- Extra large tool bag
- 2 spare fuses (12.5A)
- User manual


\*Can be charged during operation.

## Accessories/Replacement Parts

- 1017.84 Kelvin Clips 10ft (10A - Hippo)
- 2118.70 Kelvin Clips 20ft (10A - Hippo)
- 2118.73 Kelvin Probes 10ft (1A, spring loaded)
- 2118.74 Kelvin Probes 20ft (1A, spring loaded)
- 2118.75 2 Kelvin Probes Pistol Grip 10ft (10A - spring loaded)
- 2118.76 2 Kelvin Probes Pistol Grip 20ft (10A - spring loaded)
- 2118.77 2 Kelvin Probes 10ft (10A - spring loaded)
- 2118.78 2 Kelvin Probes 20ft (10A - spring loaded)
- 2118.79 Kelvin Clips 10ft (1-10A)
- 2118.80 Kelvin Clips 20ft (1-10A)

# SPECIFICATIONS

## ELECTRICAL

<b>Range</b>	4000 $\mu\Omega$	40m $\Omega$	400m $\Omega$	4000m $\Omega$	40 $\Omega$	400 $\Omega$
<b>Accuracy</b>	0.25% of Reading $\pm$ 2cts	0.25% of Reading $\pm$ 2cts	0.25% of Reading $\pm$ 2cts	0.25% of Reading $\pm$ 2cts	0.25% of Reading $\pm$ 2cts	0.25% of Reading $\pm$ 2cts
<b>Resolution</b>	1 $\mu\Omega$	10 $\mu\Omega$	0.1m $\Omega$	1m $\Omega$	10m $\Omega$	100m $\Omega$
<b>Test Current</b>	10A	1A	1A	100mA	10mA	10mA
<b>Measurement Mode</b>	Single test start/stop or auto test and store of multiple measurements					
<b>Power Source</b>	Rechargeable 6V, 8.5Ah NiMH batteries					
<b>Battery Life</b>	Up to 850, 10A tests					
<b>Battery Charging</b>	Internal 110/230Vac, 50/60Hz charger					
<b>Power Management</b>	User selectable power save mode					
<b>Low Battery Indication</b>	 blinks when battery needs charging					
<b>Memory</b>	Stores up to 99 test results Data in memory can be reviewed on the instrument display, on a PC or via direct printout					
<b>Communication Software</b>	DataView <sup>®</sup> software					

## MECHANICAL

<b>Dimensions</b>	10.70 x 9.76 x 7.17" (270 x 250 x 180mm)
<b>Weight</b>	10 lbs. (4.5kg)
<b>Index of Protection</b>	IP53 (case open); IP54 (case closed)
<b>Color</b>	Safety yellow case; gray faceplate UL94 V-0

## DISPLAY

<b>Display Type</b>	4000-count LCD
<b>Size</b>	4 x 2.25" (102 x 57mm)
<b>Backlight</b>	Blue electroluminescent

## COMMUNICATION

<b>Interface Port</b>	Optically isolated USB
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## ENVIRONMENTAL

<b>Operating Temperature</b>	14° to 132°F (-10° to 55°C); 10 to 85% RH
<b>Storage Temperature</b>	-40° to +158°F (-40° to +70°C); 10 to 90% RH

## SAFETY

<b>Safety Rating</b>	EN61010-1 300V CAT II
<b>Double Insulation</b>	Yes
<b>CE Mark</b>	Yes
<b>Catalog No.</b>	2129.80



1017.84 (10ft)  
2118.70 (20ft)



2118.73 (10ft)  
2118.74 (20ft)



2118.75  
2118.76



2118.77  
2118.78



2118.79 (10ft)  
2118.80 (20ft)

# MODEL 6255



## FEATURES

- ▶ Test up to 60 minutes continuously at 10A
- ▶ Measure from  $1\mu\Omega$  to  $2500\Omega$
- ▶ Test current selection of 1mA, 10mA, 100mA, 1A and 10A
- ▶ RTD temperature probe to check tested sample (optional)
- ▶ Selectable metal types
- ▶ Automatic and manual temperature correction
- ▶ EMF levels measured and eliminated in measurement
- ▶ Two programmable alarm set points
- ▶ Stores up to 1500 test results
- ▶ Selectable Inductive or Resistive test modes
- ▶ Automatic multiple test mode (multiple tests without pressing the test button)
- ▶ Large multi-line electroluminescent display
- ▶ Local or remote test setup and control
- ▶ Internal rechargeable batteries – conduct up to 5000 10A tests
- ▶ Rugged, double insulated watertight case

## Product 2129.84 Includes

- 2 Kelvin clips 10ft (10A - Hippo)
- 2 Kelvin Probes 10ft (1A, spring loaded)
- NiMH rechargeable 6V battery pack
- Optical USB cable
- US 115V power cord
- DataView® software
- Extra large tool bag
- User manual

## Accessories/Replacement Parts

- 1017.84 Kelvin Clips 10ft (10A - Hippo)
- 2118.70 Kelvin Clips 20ft (10A - Hippo)
- 2118.73 Kelvin Probes 10ft (1A, spring loaded)
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- 2118.78 2 Kelvin Probes 20ft (10A - spring loaded)
- 2118.79 Kelvin Clips 10ft (1-10A)
- 2118.80 Kelvin Clips 20ft (1-10A)
- 2129.95 RTD Temperature Probe
- 2129.96 RTD Temperature Probe w/ 7ft extension cable


## APPLICATIONS

- ▶ Aerospace metallic coating resistance measurement
- ▶ Bonding resistance measurement of motors and transformers
- ▶ Bonding verification on earth/ground systems
- ▶ Weld joint integrity verification
- ▶ Contact resistance measurement of breakers and switchgear
- ▶ Aircraft and rail bonding checks
- ▶ Wire to terminal connections and resistance checks
- ▶ Battery strap resistance checks
- ▶ Cable joint and bus bar connection checks
- ▶ Mechanical bond tests





# SPECIFICATIONS

ELECTRICAL							
Range	5.000mΩ	25.000mΩ	250.00mΩ	2500.0mΩ	25.000Ω	250.00Ω	2500.0Ω
Accuracy	0.15% of Reading +1μΩ	0.05% of Reading +3μΩ	0.05% of Reading +30μΩ	0.05% of Reading +0.3mΩ	0.05% of Reading +3mΩ	0.05% of Reading +30mΩ	0.05% of Reading +300mΩ
Resolution	0.1μΩ	1μΩ	10μΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
Test Current	10A		1A		100mA	10mA	1mA
Measurement Mode	Selectable: Inductive (continuous test), Resistive (instantaneous test) or Auto (multiple tests)						
Power Source	Rechargeable 6V, 8.5Ah NiMH batteries						
Battery Life	Approximately 5000, 10A tests						
Battery Charging	Internal 120/240Vac, 45/400Hz line voltage						
Power Management	Display powers down after 1, 5 or 10 minutes of inactivity (operator selectable)						
Low Battery Indication	 displays when battery needs changing						
Memory	Stores up to 1500 test results Data in memory can be reviewed on the instrument display, on a PC or via direct printout						
Communication Software	DataView® software						
MECHANICAL							
Dimensions	10.63 x 9.84 x 7.09" (270 x 250 x 180mm)						
Weight	8.1 lbs (3.69kg)						
Index of Protection	IP53 (case open); IP64 (case closed)						
Color	Safety yellow case; gray faceplate UL94 V-0						
DISPLAY							
Display Type	Large 50,000-count digital						
Size	4 x 2.25" (102 x 57mm)						
Backlight	Blue electroluminescent						
COMMUNICATION							
Interface Port	RS-232						
ENVIRONMENTAL							
Operating Temperature	14° to 132°F (-10° to 55°C); 10 to 80% RH (non-condensing)						
Storage Temperature	-40° to 140°F (-40° to 60°C); 10 to 80% RH (non-condensing)						
SAFETY							
Safety Rating	EN 61010-1, 50V CAT III						
Double Insulation	Yes						
CE Mark	Yes						
Catalog No.	2129.84						



1017.84 (10ft)  
2118.70 (20ft)



2118.73 (10ft)  
2118.74 (20ft)



2118.75  
2118.76



2118.77  
2118.78



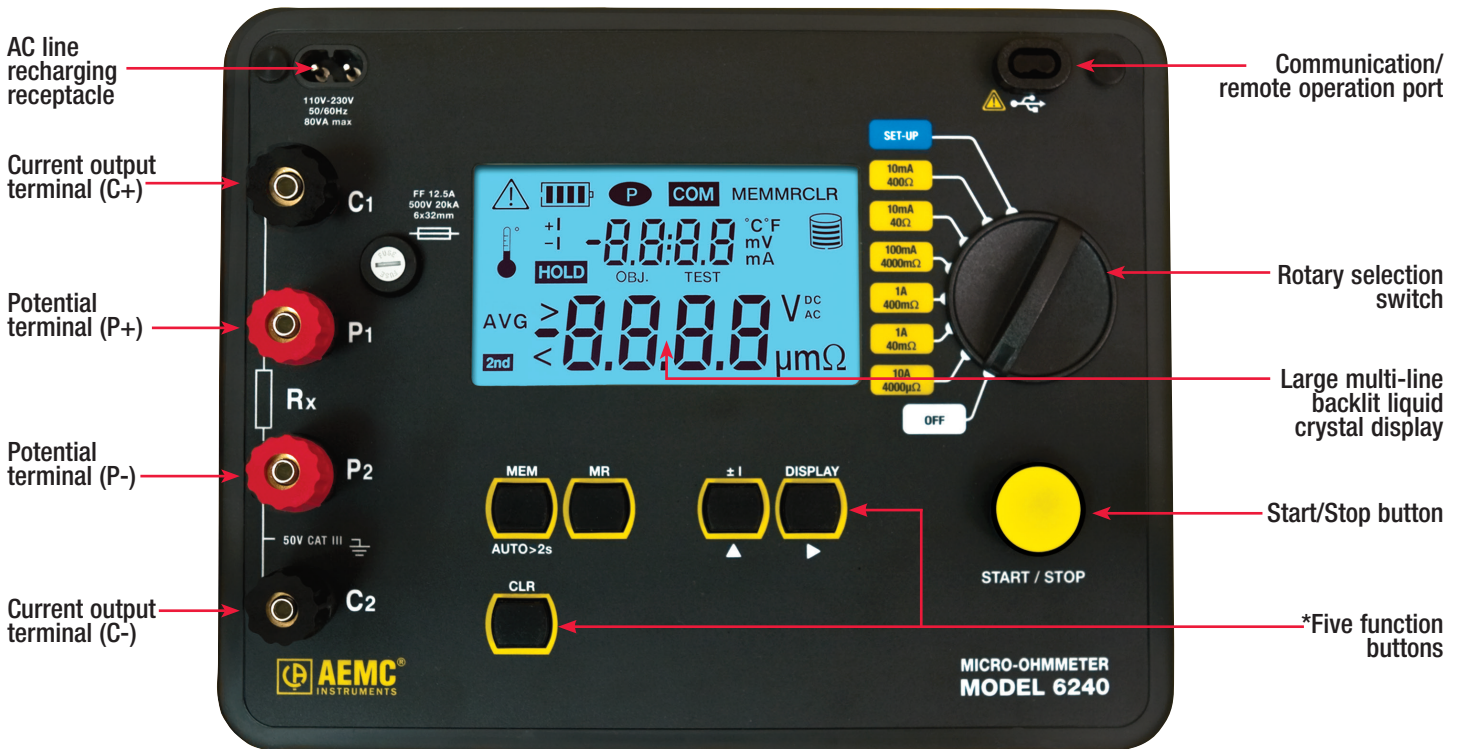
2118.79 (10ft)  
2118.80 (20ft)



2129.95  
2129.96 (w/ cable)

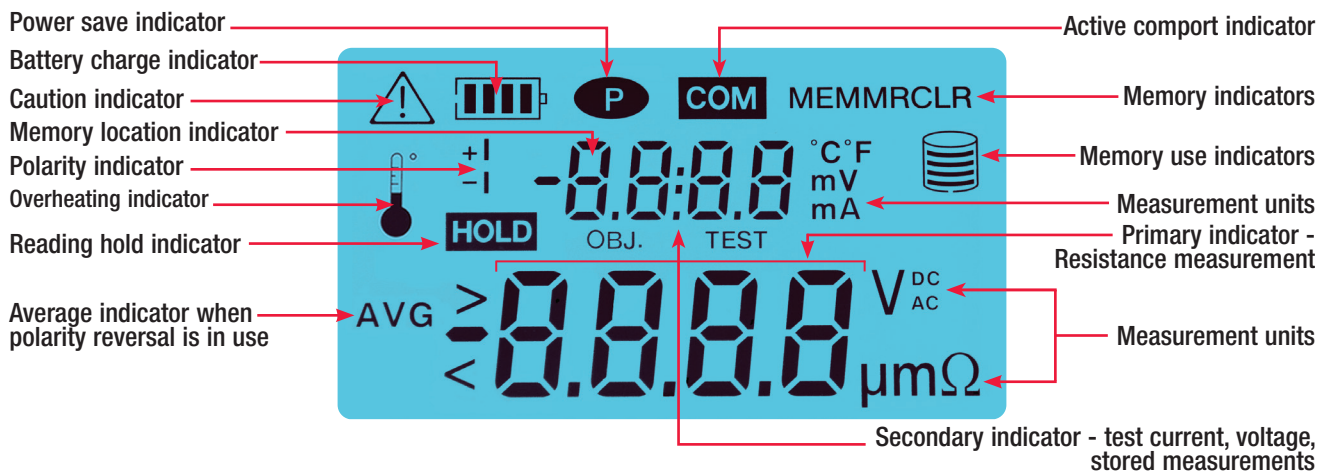
# Model 6240

## Construction



\* Function buttons allow direct access to data storage and retrieval, polarity reversal, auto/manual measurement and displayed values.

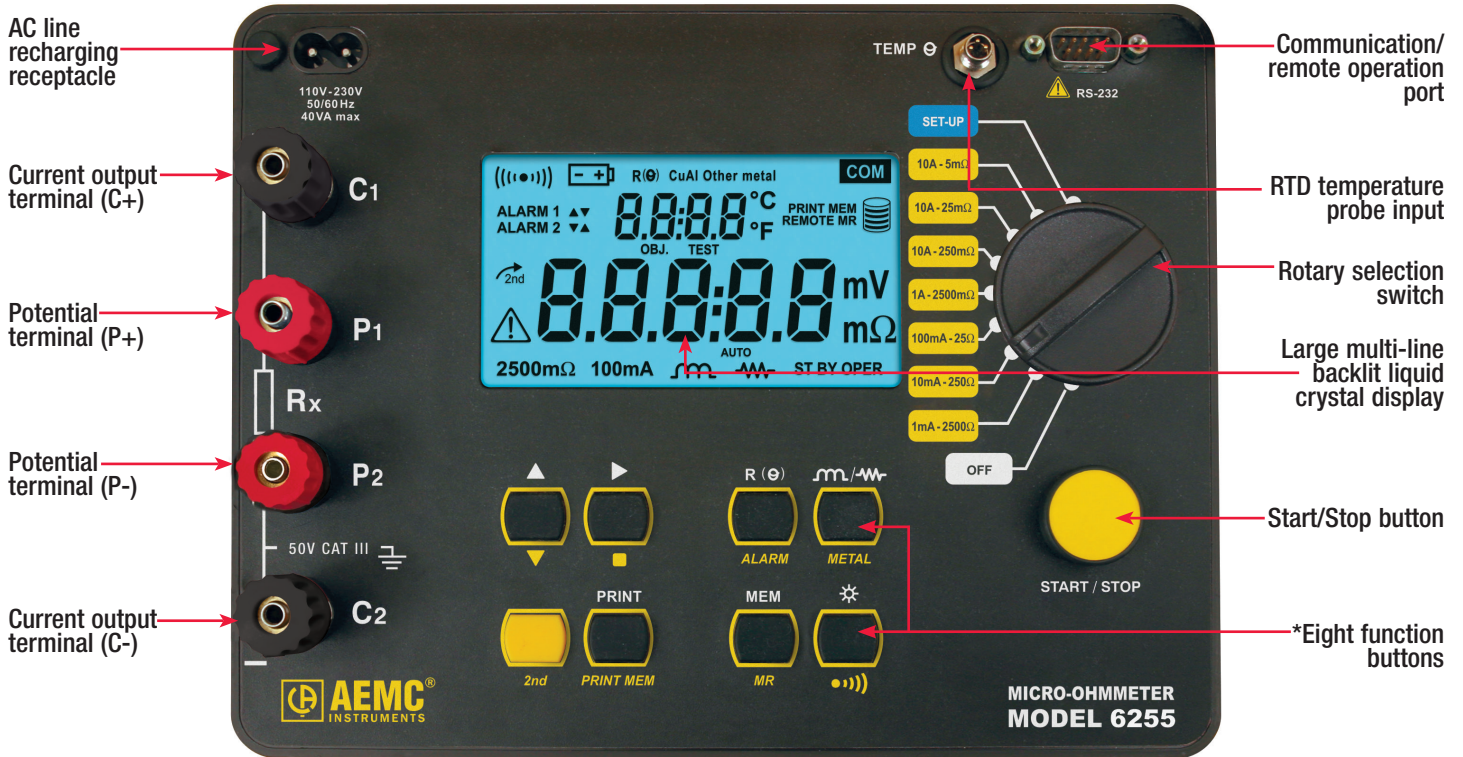
## Functional Display





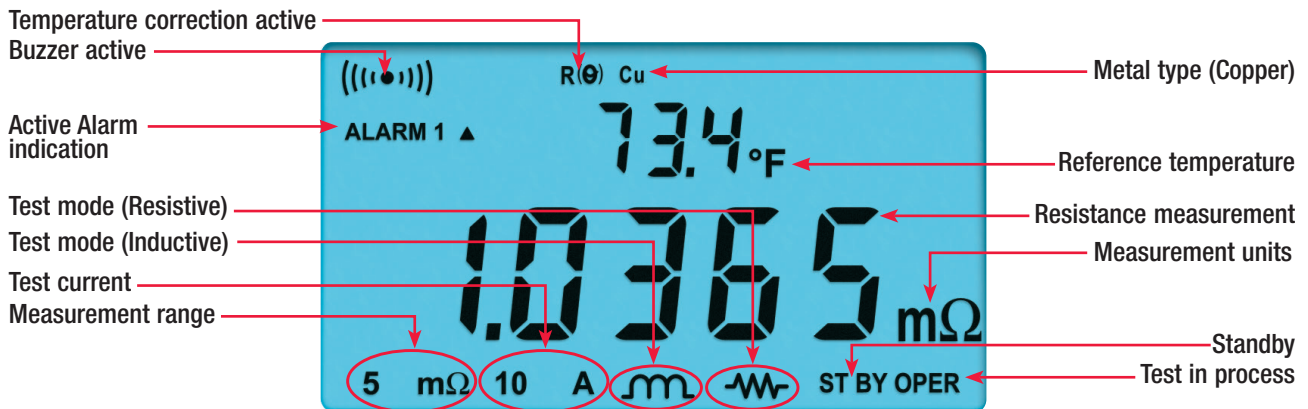
# Model 6255

## Construction



\* Function buttons allow direct access to data storage and retrieval, polarity reversal, auto/manual measurement and displayed values.

## Functional Display



# MODEL 6292



## FEATURES

- ▶ Advanced cooling system allows continuous testing at 100A or below and up to 120 seconds at 200A
- ▶ Incorporates True DC high output with minimum, near zero, ripple lower than 2% of full range.
- ▶ Allows multiple sequential tests
- ▶ Programmable test currents from 5 to 200A
- ▶ Measures single or both sides grounded systems
- ▶ Direct viewing of stored tests on the display
- ▶ Accurately measures low contact resistances from  $0.1\mu\Omega$  to  $1\Omega$
- ▶ Resolution of  $0.1\mu\Omega$
- ▶ Large LCD digital display, available in four languages
- ▶ Stores up to 8000 test results
- ▶ USB communication interface
- ▶ Direct printout using DataView® software and a PC
- ▶ Rugged, light-weight and water-resistant case



## Product 2129.83 Includes

- Accessory Bag
- 2 25ft Kelvin Test Leads w/ Hippo Clamp (200A)
- 1 Green Ground Lead w/ Clamp
- USB Cable
- Power Cord
- User manual
- DataView® software

## Accessories/Replacement Parts

- 2129.72 Lead - Set of 2 25ft Kelvin Leads with Hippo Clamp (200A)
- 2129.73 Lead - Set of 2 50ft Kelvin Leads with Hippo Clamp (200A)
- 2129.86 Current Probe Model MR6292
- 2129.88 Lead - 10ft Earth/Ground w/ attached Clamp
- 5000.40 110V US Power Cord

## APPLICATIONS

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





# SPECIFICATIONS

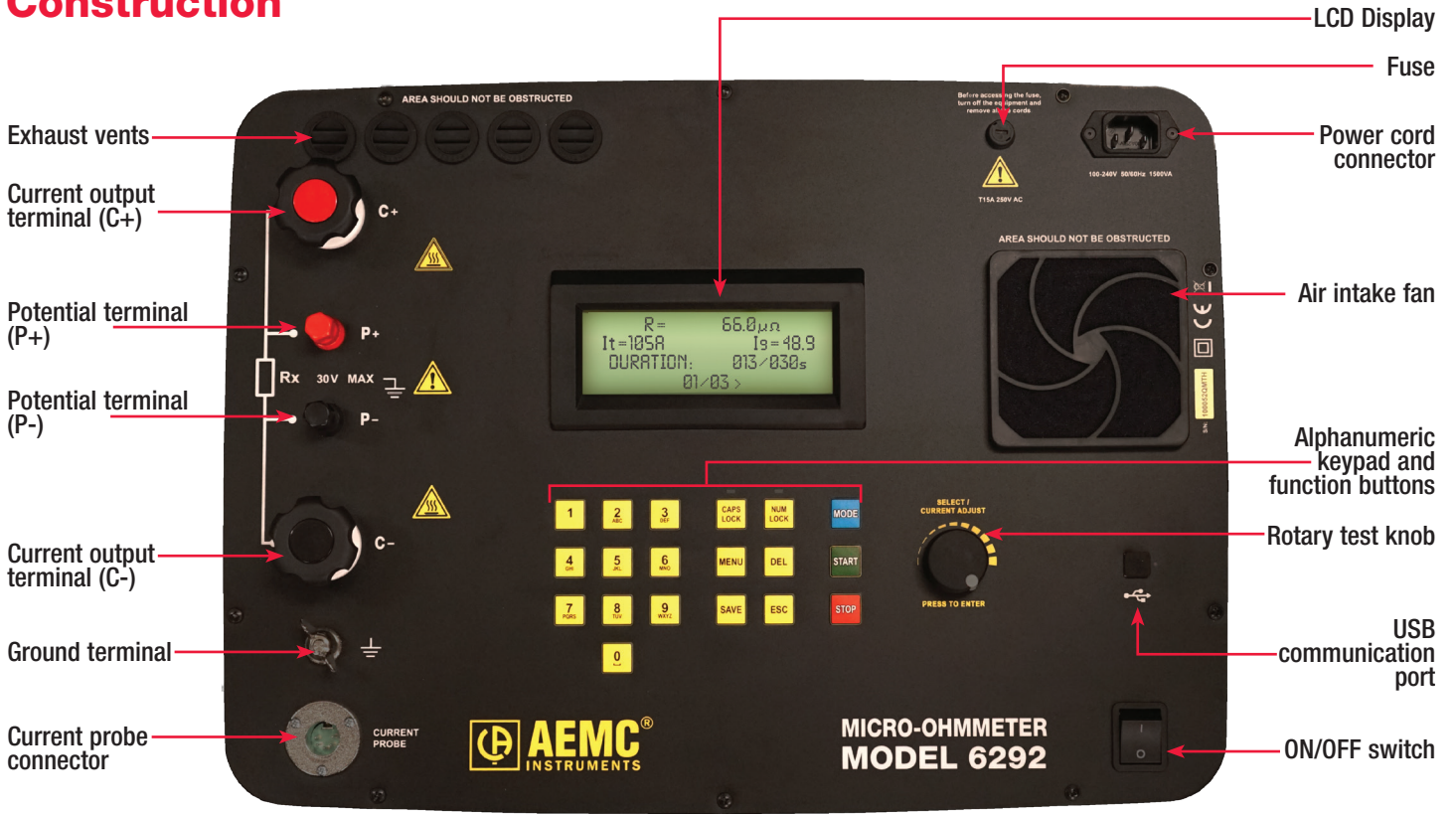
ELECTRICAL	
Test Current Range	Programmable from 5 to 200A (True DC)
Resistance Range	0.1 $\mu\Omega$ to 2m $\Omega$ ; 2 to 200m $\Omega$ ; 200m $\Omega$ to 1 $\Omega$
Accuracy	$\pm$ 1% of reading from 50 $\mu\Omega$ to 1 $\Omega$
Resolution	0.1 $\mu\Omega$ (200A max) 10 $\mu\Omega$ (25A max at 200m $\Omega$ ) 1m $\Omega$ (5A max at 1 $\Omega$ )
Output Voltage	100V <sub>AC</sub> : 4.2V @ 200A 220V <sub>AC</sub> : 8.6V @ 200A
Max. Load Resistance	100V <sub>AC</sub> : 20m $\Omega$ @ 200A 220V <sub>AC</sub> : 42m $\Omega$ @ 200A
Measurement Method	Four-terminal, Kelvin-type
Test Mode	Normal or both sides grounded (BSG)*
Adjustable Test Time	5 to 120 seconds at 200A, unlimited at 100A or below
Memory	Stores up to 8000 measurements
Communication Software	DataView® software
Power Supply	100 to 240V <sub>AC</sub> , 50/60Hz
MECHANICAL	
Dimensions	19.8 x 15.5 x 7.5" (502 x 394 x 190mm)
Weight	24.25 lbs (11kg) approx
DISPLAY	
Display Type	4 line x 20 characters per line LCD
Size	4.75 x 2.75" (121 x 70mm)
Backlight	adjustable
COMMUNICATION	
Interface port	USB 2.0
ENVIRONMENTAL	
Operating Temperature	32° to 122°F (0° to 50°C)
Storage Temperature	14° to 158°F (-10° to 70°C)
Humidity	95% RH (non-condensing)
SAFETY	
Safety Rating	IEC61010-1
Protection	Protections against over current, short circuit, overheating and over voltage at output terminals
Environmental Protection	IP54 with closed lid
Test w/ Both Sides Grounded	Yes
CE Mark	Yes

\*BSG Test Mode requires optional Current Probe Model MR6292 (Cat. #2129.86)

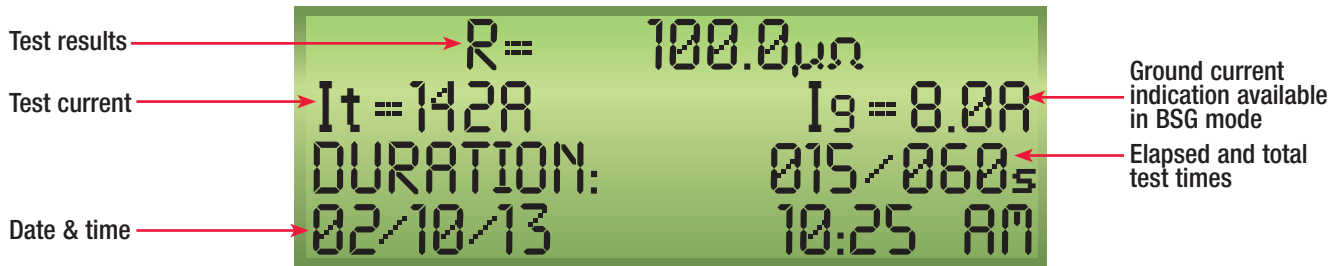


# Model 6292

## Construction



## Functional Display

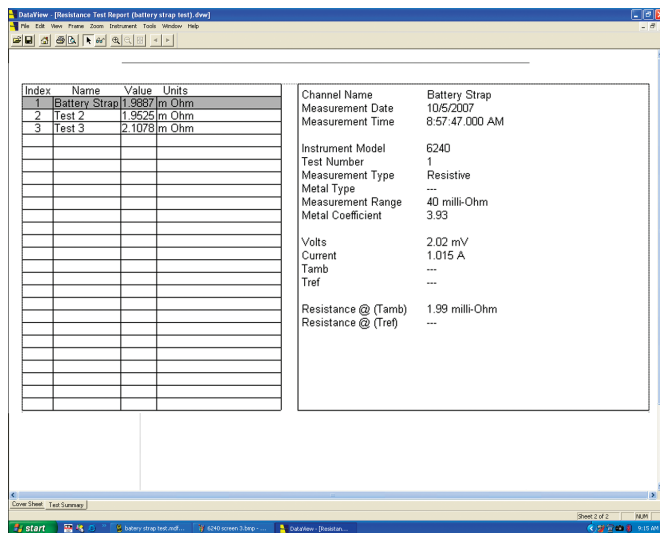
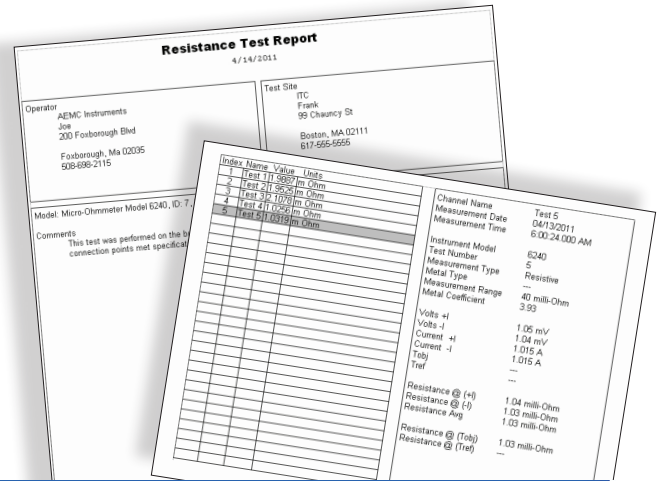




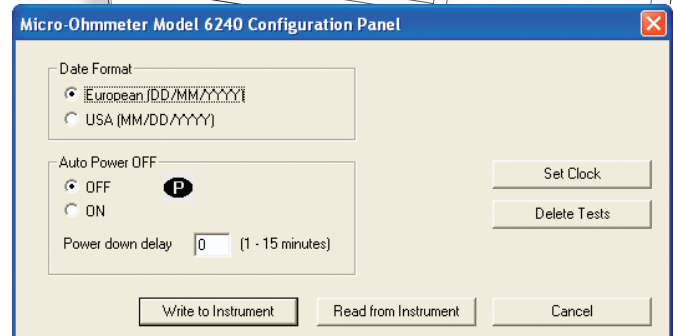


## FEATURES

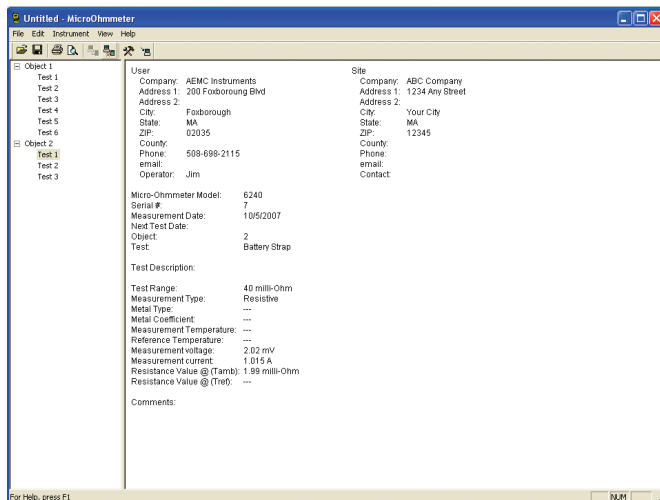
- ▶ Configure instrument from your PC
- ▶ Customize views and templates to your exact needs
- ▶ Create and store a library of configurations that can be used with the Models 6240, 6255, and 6292 as needed
- ▶ Display test results
- ▶ Print reports using standard included templates or custom templates you design
- ▶ Upload stored test results to your PC



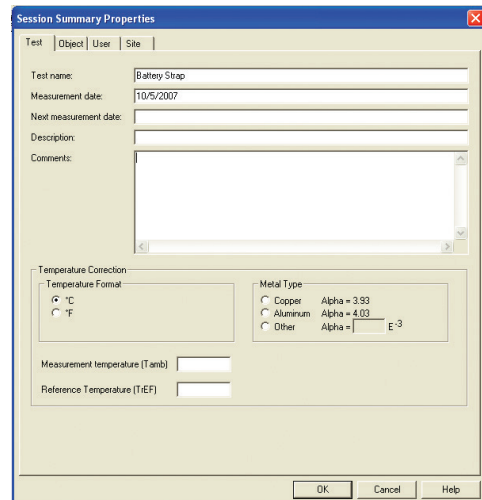
Statistical presentation of measurements



All set up functions available from one screen



Clean, easy-to-read report of test results



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

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