

Ohmstik PLUS Live-Line Micro Ohmmeter

Measure micro-ohm resistance on a live high voltage conductor

Superior measurement compared to infrared thermography

Measure exact resistance or compare to a nearby conductor

Measures up to Nine sets of readings

Simple to use one button operation

Measures resistance using AC current in the line

Measures and displays both amps and micro-ohms



Widejaw Ohmstik Plus



Hotstick Mounted



The OhmstikPlus Live-Line Micro Ohmmeter measures the micro-ohm resistance of conductors, connectors, splices and switching devices positioned directly on an energized, high voltage lines.

Time is not the only "aging factor" for connectors. Deterioration is primarily due to increases in resistance of the connection. Resistance can be produced by peaks of load and fault current that heat the interface, even if only for a few cycles. Other factors of deterioration are the oxidation of the interfaces during thermal expansion and cooling, and by corrosion accelerated by moisture and chemicals that get between the strands. These influences will accelerate the deterioration of connectors that are not installed properly.

Research data on connector reliability indicates that there will be further problems with

unexpected failures than have occurred in the past. These failures come at a time when the need for reliability is essential. The OhmstikPlus gives users information to predict a failure years in advance, allowing for replacement on a planned basis, before failure occurs.

The OhmstikPlus calculates resistance by measuring the AC amperage in the line and the voltage drop due to the resistance of the line segment under test. Using the AC current in the line ensures that realistic current distributions through the connection are being measured. The instrument is pressed against the splice or connector in such a manner that the connection under test is between the two electrodes. In a few seconds the instrument is removed from the line and the line amperage and resistance are displayed on the front panel LCD. The Ohmstik Plus is designed to store up to nine sets of readings. The

ability to hold the multiple readings ends the need to lower the instrument to eye level after each measurement.

This measurement is much more direct than infrared thermography, and is not subject to emissivity, weather, current loading, background, and other influences that cause infrared errors.

The OhmstikPlus can be used on almost any connection in a utility. Line splices can be checked after installation or after many years of service. Bolted terminals, taps, jumpers, and substation bus bars can be evaluated. Switches, fused disconnect, and normally open switches that have been open for long periods can be measured just after closing. Each of these connections can be measured quickly after installation, or surveyed after long service, to ensure proper resistance.

Applications

Measure & Evaluate Splices on Transmission and Distribution conductors

Verify closing resistance of normally open switches

Check taps and jumpers for connection reliability

Indicate the aging of connections

Direct measurement of connection reliability

Predict failure to prevent future damage



OhmstikPlus Live-Line Micro Ohmmeter

Model Number	8-082 XT Plus	8-084 Plus
Frequency	60 Hz or 50 Hz	60 Hz or 50 Hz
Measurements		
Amps	1-1400A	1-1400A
Micro-ohms	5-2500	5-2500
Resolution		
Amps 0.9-99.9A	0.1A	0.1A
Amps 100-1400A	1A	1A
Micro-ohms 1-999	1 $\mu\Omega$	1 $\mu\Omega$
Micro-ohms 1000-2500	1.0m Ω	1.0m Ω
Accuracy		
Amps	$\pm 1\% + 1$ Amp	$\pm 1\% + 1$ Amp
Micro-ohms Absolute	$\pm 2\% + 2 \mu\Omega$	$\pm 2\% + 2 \mu\Omega$
Micro-ohms Repeatability	$\pm 1\% + 2 \mu\Omega$	$\pm 1\% + 2 \mu\Omega$

(Accuracy is diminished if the current is less than 15 amps while on 0 - 35kV and when current is less than 50 amps while on 36 - 500kV)

Range of Operation		
Voltage Rated	500kV	500kV
Mechanical		
Sensor Opening	2.5 in (6.35 cm)	3.86 in (9.8 cm)
Weight	2.3 lbs. (1.05 kg)	3.75 lbs. (1.71 kg)
EEC Standards	Successfully passed international test standards indicated by CC	
Operation		
Controls	One button operation	
Readings	Nine	
Electrode	Detachable insulated & fused probe	
Ambient Temperature	-8 to +140 degrees F (-20 to +60 degrees C)	
Display	Graphics LCD	
Housing	Shock & water resistant molded urethane	
Hotstick Mounting	Universal chuck adapter (Hotstick not included)	
Battery	9 volt alkaline	
Options		
Hard Carrying Case	Model 7044	



Optional Hard Case

techniCAL

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