

# 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, single button operation*

*Measures and displays both amps and micro-ohms*



Widejaw Ohmstik Plus



Hotstick Mounted



**The Ohmstik Plus** Live-Line Micro Ohmmeter measures the micro-ohm resistance of conductors, connectors, splices and switching devices positioned directly on 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 Ohmstik Plus 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 Ohmstik Plus 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	6-082	6-084
Description	Ohmstik PLUS	Wide Jaw Ohmstik Plus
Kit Includes:	8-082 XT PLUS	8-084 PLUS
	1 ea Carrying Case	1 ea Carrying Case
	1 ea Universal Angle Adaptor	1 ea Universal Angle Adaptor
	1 ea Adjustable Probe	1 ea Fused Probe
	1 ea Fused Probe	
Sensor Opening	2.5 in, 6.35 cm	3.86 in , 9.8cm
Weight	2.4 lbs, 1.10 kg	4.0 lbs, 1.81 kg
Frequency, 50 Hz	47 to 53 Hz	
Frequency, 60 Hz	57 to 63 Hz	
Measurements	Nine Readings	
Range of Operation		
Voltage Phase to Phase	500 kV	
True RMS Amps	1-1400 A	
Micro-Ohms	5-2500 $\mu\Omega$	
Resolution		
Amps 0.9-99.9 A	0.1 A	
Amps 100-1400 A	1 A	
Micro-Ohms 1-999	1 $\mu\Omega$	
Micro-Ohms 1000-2500	1.0 m $\Omega$	
Accuracy		
Current	$\pm 1\% \pm 1$ A	
Micro Ohms Absolute	$\pm 2\%, \pm 2$ $\mu\Omega$	
Micro-Ohms Repeatability	$\pm 1\%, \pm 2$ $\mu\Omega$	
	Accuracy is diminished if the current is less than 15 A while on 0-35kV and when current is less than 50 A while on 36-500 kV	
EEC Standards	Successfully passed international test standards indicated by CE	
Mechanical		
Controls	Single button operation	
Operating Temperature	-22° to +140° F, -30 to +60° C Lithium battery required for temperatures below -4°F (-20°C)	
Display	Graphics Display	
Housing	Shock & water resistant molded urethane	
Hotstick Mounting	Universal chuck adapter (Hotstick not included)	
Battery	9V Alkaline or Lithium	



SensorLink® Corporation

1360 Stonegate Way  
Ferndale, WA 98248 USA  
phone 360.595.1000  
fax 360.595.1001  
www.sensorlink.com