



QA Technology Company, Inc.

Applications Note

Socket Resistance Comparison

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Scope:

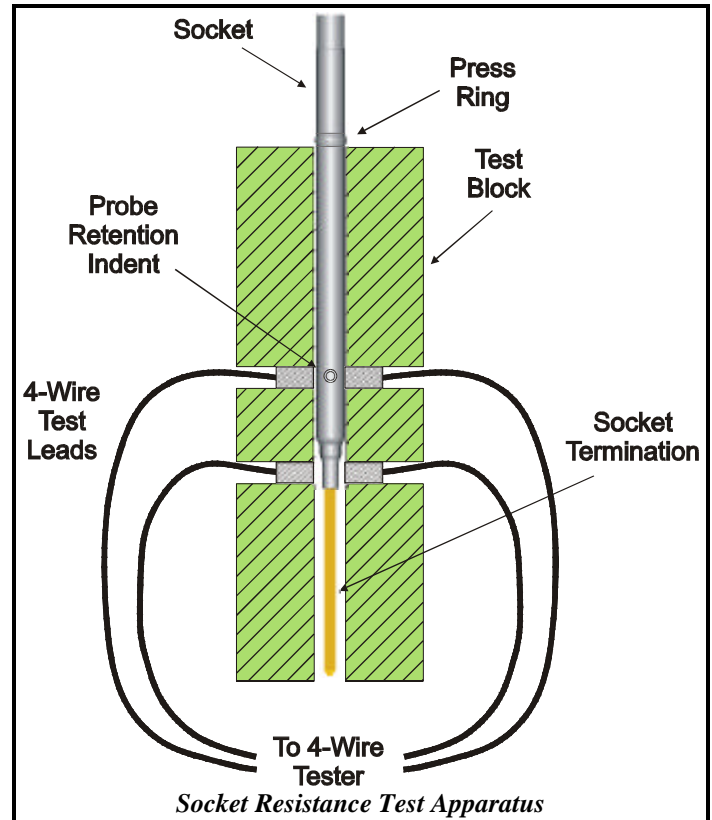
This test measures the electrical resistance on the portion of the socket, which is in the primary current path. The resistance is measured as shown in the sketch. Note that secondary parallel paths (i.e. contact between probe tube and socket bottom, probe tube and socket top) if they occur, would lower the resistance further.

Background:

The distance between the clamp contact points is the distance from the probe retention indent on the 100-SDS250M socket to the socket bottom. For consistency, the same distance is used for all sockets tested even though the probe retention indent is closer to the bottom on other sockets.

Test Materials:

Qty	Part Number	Lot Number
25	100-SDG250W	lot # 8008-16-01
25	100-SDH250W	lot # 8008-16-03
25	100-SDN250W	lot # 8040-16-02
25	100-SDS250M	lot # 6352J RV A
1	Socket resistance test block per sketch	
1	Keithley 4-wire Micro-ohmmeter	



Socket Resistance in Milliohms

Test Procedure:

Each socket was loaded into the test block and measured with 4-wire Micro-ohmmeter as shown.

Results:

The H tube sockets had the lowest resistance followed by the G and the N tube, the S tube had the highest resistance. See table below for results.

Part Number	Socket Tube Material	Avg. Res.*
100-SDH250W	High Conductivity Alloy	.39 mΩ
100-SDG250W	Gold Plated Nickel Silver	1.48 mΩ
100-SDN250W	Nickel-Silver	2.38 mΩ
100-SDS250M	Stainless Steel	7.06 mΩ

*Resistance measured from M tube probe retention indent to socket tube bottom.