



ADVANCED PERFORMANCE
Super ITS-921 Reverse-Bayonet
Rigid Insert, High-Ampacity Connectors
 Testing Specifications



SUPER ITS: HARSH ENVIRONMENT

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Description	Requirement	Procedure																					
Contact Resistance	<p>Low level: the low signal level contact resistance of mated contact pairs shall be measured in accordance with VG95234-1 (Para. 5.10.1).</p> <p style="text-align: center;">CONTACT RESISTANCE</p> <table border="1"> <thead> <tr> <th>Contact Size</th> <th>Contact Resistance (mΩ Max.)</th> </tr> </thead> <tbody> <tr><td>16</td><td>6</td></tr> <tr><td>12</td><td>3</td></tr> <tr><td>8</td><td>1</td></tr> <tr><td>4</td><td>0.5</td></tr> <tr><td>1/0</td><td>0.2</td></tr> </tbody> </table>	Contact Size	Contact Resistance (mΩ Max.)	16	6	12	3	8	1	4	0.5	1/0	0.2	VG95234-1									
Contact Size	Contact Resistance (mΩ Max.)																						
16	6																						
12	3																						
8	1																						
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Contact Retention	<p style="text-align: center;">CONTACT RETENTION</p> <table border="1"> <thead> <tr> <th>Contact Size</th> <th>Min. Pounds</th> </tr> </thead> <tbody> <tr><td>16</td><td>25</td></tr> <tr><td>12</td><td>30</td></tr> <tr><td>8</td><td>50</td></tr> <tr><td>4</td><td>60</td></tr> <tr><td>1/0</td><td>75</td></tr> </tbody> </table>	Contact Size	Min. Pounds	16	25	12	30	8	50	4	60	1/0	75	EIA-364-29 MethodB									
Contact Size	Min. Pounds																						
16	25																						
12	30																						
8	50																						
4	60																						
1/0	75																						
Current Rating	<p style="text-align: center;">CURRENT RATING</p> <table border="1"> <thead> <tr> <th>Contact Size</th> <th>Rated Current (20°C)</th> <th>Rated Current (80°C)</th> </tr> </thead> <tbody> <tr><td>16</td><td>25</td><td>15</td></tr> <tr><td>12</td><td>50</td><td>28</td></tr> <tr><td>8</td><td>90</td><td>70</td></tr> <tr><td>4</td><td>160</td><td>130</td></tr> <tr><td>1/0</td><td>300</td><td>250</td></tr> <tr><td>2/0</td><td>330</td><td>280</td></tr> </tbody> </table>	Contact Size	Rated Current (20°C)	Rated Current (80°C)	16	25	15	12	50	28	8	90	70	4	160	130	1/0	300	250	2/0	330	280	EIA-364-70
Contact Size	Rated Current (20°C)	Rated Current (80°C)																					
16	25	15																					
12	50	28																					
8	90	70																					
4	160	130																					
1/0	300	250																					
2/0	330	280																					
Dielectric Withstanding Voltage at Sea Level	<p>Service Rating E No breakdown or flashover at 4000 Vac RMS - 50 Hz 2 mA max. leakage current</p> <p>Service Rating B No breakdown or flashover at 4500 Vac RMS - 50 Hz 2 mA max. leakage current</p>	MIL-DTL-5015H																					



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Description	Requirement	Procedure
Dynamic Corrosion	The connectors shall be subjected at 50 cycles of mating/unmating then at XXX hours of salt spray (see platings limit for the hour of test) and then another 50 cycles of mating/unmating shall be performed. Connectors shall show no exposure of the base metal. Connectors shall meet DWV, contact resistance, shell to shell resistance.	MIL-DTL-5015H
High Impact Shock	No discontinuity of greater than 1 microseconds, no cracking, breaking or loosening of parts, plug shall not become disengaged from receptacle. Connectors shall meet electrical requirements after vibration test. 3 shocks for each direction; 50G, 11ms (VG95234 and SAE AS 50151C)	MIL-DTL-38999L
Ingress Protection, Mated	IPX8 rating IPX9K rating.	IEC-60529 DIN 40050-9
Insert Retention	Unmated connector. 100 ± 5 pounds per square inch with a 25 pounds minimum force.	MIL-DTL-38999L
Insulation Resistance at Ambient Temperature	The measure of the insulation resistance shall be done with 500 Vdc. Insulation resistance shall be greater than 5G ohm	MIL-DTL-5015H
Insulation Resistance at Elevated Temperature	The measure of the insulation resistance shall be done after 30 min at 200°C with 500 Vdc. Insulation resistance shall be greater than 1000 MΩ.	EIA-364-21
Mechanical Durability, at Ambient Temperature	The connectors shall be subjected at 2000 cycles of mating/unmating.	MIL-DTL-5015H

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Moisture Resistance	In accordance with EIA-364-31 method IV. The insulation resistance shall be not less than 100 MΩ.	MIL-DTL-5015H
Operating Temperature	See plating operating temperature.	
Shell Conductivity	The overall DC resistance shall be $R \leq 5\text{m}\Omega$	MIL-DTL-5015H
Thermal Shock	The connectors shall be subjected at 5 cycles of thermal shock (30min + 30 min). For the temperature see the platings limit. Following thermal shock, connector shall meet contact resistance, DWV, insulation resistance and shell to shell resistance requirement.	MIL-DTL-5015H
Vibration, Sine	Mated connectors shall not be damaged and there shall be no loosening of parts due to vibration. Counterpart connectors shall be retained in full engagement. The interruption of electrical continuity shall be not longer than 10 microseconds.	MIL-DTL-5015H
Water Pressure	The connectors shall be submerged in water at 1 bar of pressure for 12h. The connectors shall show no evidence of entrance of water.	VG95234

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