Product Description
The EGS GRAYBOOT connector is a single conductor, quick-disconnect, elastomer body, sealed connector whose performance in accident conditions is equivalent to nuclear grade heat shrink tubing or uninterrupted nuclear grade wire with regard to insulation resistance and leakage current. This connector typically features plated contacts crimped to the user’s field wiring and inserted into the connector body. The connector halves are then secured to the wire by a special crimp-clamp. Sealing is maintained at the wire to body interface by the clamp and at the connector halves by the elastomer to elastomer seal. No maintenance is required.

Design Features
- Quick connect/disconnect (push/pull)
- Easy installation
- Small size for conduit and instrument enclosure use
- Eliminates splicing problems
- EQ tested including submergence
- Utilizes existing pigtails/field wire
- Anti-tamper clamps available
- No maintenance
- High insulation resistance during LOCA
- Low current leakage for instrument sizes
- 600V rating, up to 85 amps
- ALARA savings over repetitive splicing
- Better performance than most splices, terminal blocks and connectors
- Quick installation tools available
- Allows for easy transition from large wire to small wire
- Continuous Use Temperature 257°F (125°C)

Qualification Levels (See graph on back)
- Qualified life: 40 years at 133°F (56°C)
- Radiation: 2E8 rads gamma
- Seismic: 7.0g ZPA
- LOCA Tested: 435°F (223°C) and 77 psig (632.2 kPa)
- Accident Peaks
- Submergence: 30 days at 200/180°F (93/82°C) and 15/5 psig (204.8/135.8 kPa) in chemical spray solution

Qualification Standards
Successfully qualified by test in accordance with:
- ANSI N45.2
- 10CFR50/Appendix B
- 10CFR21
- NQA-1
- CSA registered
- IEEE 323-1974/1983
- IEEE 344-1975/1987
- IEEE 383-1974
- IEEE 572-1985
- 10CFR50.49
EGS GRAYBOOT Connector Series

EGS GRAYBOOT Connector Specifications (Partial List)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>GB-1 (16-18)</th>
<th>GB-1 (12-14)</th>
<th>GB-2 (12-14)</th>
<th>GB-2 (8-10)</th>
<th>GB-3 (4-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG Range</td>
<td>16-18</td>
<td>12-14</td>
<td>12-14</td>
<td>10-8</td>
<td>6-4</td>
</tr>
<tr>
<td>Rated Voltage (volts)</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
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<tr>
<td>Rated Current (amps)</td>
<td>13</td>
<td>23</td>
<td>30</td>
<td>46</td>
<td>85</td>
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<tr>
<td>Rated Contact Resistance (ohms)</td>
<td>0.0026</td>
<td>0.0013</td>
<td>0.0013</td>
<td>0.0005</td>
<td>0.0004</td>
</tr>
<tr>
<td>Insulated Wire Diameter Use Range (inches)</td>
<td>0.090-0.160</td>
<td>0.090-0.160</td>
<td>0.160-0.280</td>
<td>0.160-0.280</td>
<td>0.270-0.425</td>
</tr>
</tbody>
</table>

Notes:
1. Individual components such as pins/sockets can be ordered per part numbers shown on GRAYBOOT Assembly Drawings A-N-880707-1, -2 or -3
2. For additional kit P/N and configurations, refer to the GRAYBOOT Selection Guide

Installation (See diagram to right)
Installation is quick and easy. Wire ends (7) are stripped and the pin (4) and socket (3) are crimped to their respective ends. One clamp (6) is slipped loosely over each end of the wire and moved down the wire for later crimping. The insertion tool is then used to grasp the pin or socket and push it into place in the boots (1 or 2). The clamps (6) are now crimped. If desired, an anti-tamper clamp (5) may be snapped over the mated connector.

Installation tools include:
- P/N GB-1A-IK (installation kit for GB-1)
- P/N GB-2/3-IK (installation kit for GB-2 and GB-3)
- P/N TBM-6S (crimp tool for GB-2 and GB-3)

Refer to GRAYBOOT Selection Guide for additional information.

How to Order
The EGS GRAYBOOT is ordered by P/N and conductor size per the Selection Guide.

Qualification Levels: EGS Report EGS-TR-880707-04