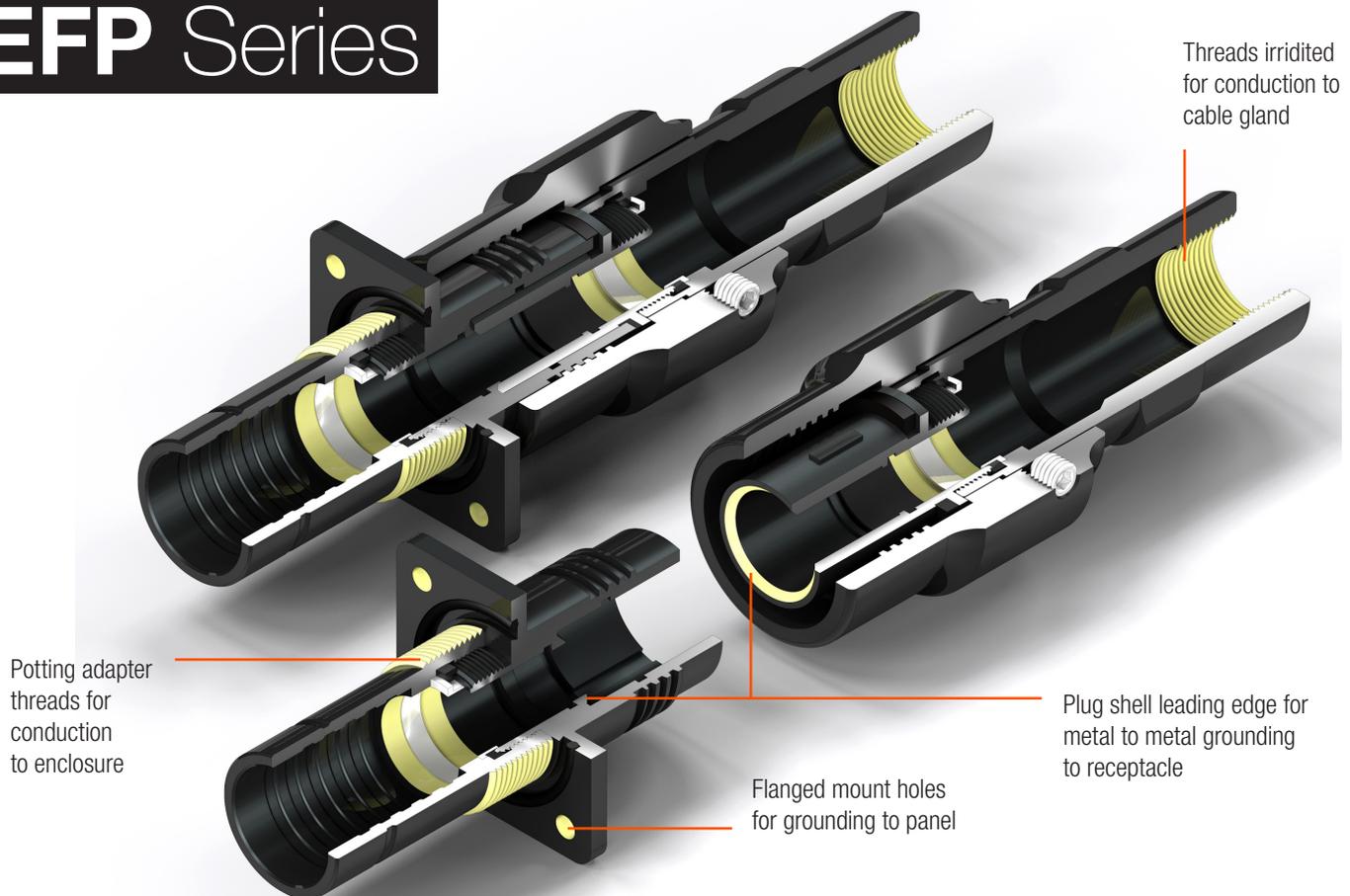


Through Shell Conductivity



Electrical Equipment Corporation

EFP Series



The metal components used in this series of connectors are machined from aircraft quality aluminum. The coating of the exposed surfaces is type III (hardcoat) anodizing. During the anodizing process, aluminum oxide is grown out of the surface.

The Anodized surface has several beneficial properties:

1. Hardness: 65 to 70 Rockwell C. It protects the aluminum parts by making the surface much harder than natural aluminum.
2. Corrosion Resistant per MIL-A-8625
3. Coating Thickness: 0.002" average
4. Color: Dark grey/green that can be dyed black.
5. Dielectric: Hardcoat in non-conductive and will withstand 800 volts per 0.001" thickness.
6. Resistivity: Between 10^6 to 10^{12} Ohm-cm.

Induced Eddy currents

During normal operations, the shielding of electrical cables can become energized due to electrostatic and electrodynamic induction. If this energy is not dissipated, a dangerous potential may occur. To prevent the build up of electrical potential, the

screen should be run to ground. To assist the grounding of the cable screening, 'Through Shell Conductivity' has been developed.

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This is where the cable screen is electrically bonded to the cable adapter through the cable gland, then through a grounding system, to the front of the plug. When the plug is mated to the corresponding receptacle, any induced current can be transmitted through the receptacle and then grounded by the receptacle mounting bolt.

To achieve through shell conductivity, discrete areas of hardcoat have been replaced by electrically conductive iriditing.

Please note, Through Shell Conductivity is not intended to serve as the primary grounding loop for an electrical circuit.