

## **AEROSPACE & DEFENSE**



Spectrum Control offers custom circular connectors in EMI filtered or unfiltered styles, including military standards. Our EMI filter compact shell connectors provide an effective filtering device that reduces the amount of real estate required within a product enclosure. Using our expertise in EMI filter design and manufacturing, we offer planar-style filter arrays, available in C and Pi circuits up to 200nF in most configurations. Other filter circuits, including transient protection, are available.

Spectrum Control's EMI filter connector offerings are fully vertically integrated and manufactured in the USA. We build components, including Ceramic Capacitors and shells, in-house, providing our customers with high-quality parts, with the industry's shortest lead times.



#### **Power Connector**

- · Integrated common mode and differential mode EMI filtering in a circular connector package
- Replace traditional larger EMI box filters (power entry filter) with similar performance
- Mates to a standard MIL-DTL-38999 connector insert arrangement 21-11
- Filtering included with space-saving and reduced installation cost for the system
- Ideal for input power with systems using SMPS or any electronic system near radio communications equipment



#### Transient Survival

- Meet standards for RTCA/DO-160 section 22 lightning requirements
- Withstand very high voltages surges for airborne equipment
- Selective load options with consistent pin-to-pin performance
- Provides increased safety, system capacity, and overall efficiency
- Custom designs available



## Composite Shell

- Rugged and durable for weight-sensitive applications
- · Designed to displace traditional metal connector shells for substantial weight reduction
- Custom mechanical variations may be provided without usual tooling charges
- · Circular connectors in MIL-38999 series III and IV, available EMI filtered or unfiltered
- Nickel and cadmium plating are available
- Custom designs available





## **Black Nickel Zinc Plating**

- Resistant to corrosion and maintain electrical conductivity while reducing reflectivity on the surface (500 hours salt)
- Approved for MIL-DTL-38999 and other standard MIL configurations
- · Maintains the mechanical integrity of plated connectors and will not require new drawings, tooling, or gauges
- RoHS compliant (replacement for cadmium plated connectors)
- · Custom designs available



## **Hermetically Sealed Shell**

- Glass-sealed connectors built to protect against changes in atmospheric pressure and exposure to humidity, grime, and chemicals
- ldeal for aerospace engine control, hydraulic, and caustic environments where harsh conditions exist
- Withstand low to high pressures and altitude seen in defense and aerospace applications
- · Rugged protection of EMI circuits
- Available EMI filtered or unfiltered versions



## **Aluminum Alloy Shell**

- · High-grade aluminum
- · Durable, but lightweight for high performance
- · Environmentally sealed for harsh environment applications
- · Designed to withstand high vibrations and temperatures
- MIL-DTL-38999
- · Cadmium and nickel plating are available
- · Custom designs available



### Stainless Steel Shell

- · Built to operate in highly corrosive and damp environments
- Premium grade stainless steel
- · Superior strength of stainless steel for the highest level of durability
- · Designed to seal electrical connections against elements, including water, oil, chemicals, dust and dirt
- · Custom designs available



#### **Filtered Audio Connectors**

- Easy retrofit or upgrade without concern for space availability
- Standardized design for most contact arrangements minimizes tooling required (often none)
- Reduced procurement costs and small order quantities or prototypes
- PC tail or solder cup terminations



# **EMI Filter Connectors Conformed to the Requirements of the Following Military Specifications:**

- MIL-DTL-38999
- MIL-DTL-55116
- MIL-DTL-83723

- MIL-DTL-26482
- MIL-DTL-5015

Spectrum Control's customers benefit from unparalleled engineering and industry expertise. We provide complete standard and custom solutions in a timely manner. Our in-house machining, state-of-the-art engineering, and technology integration provide for rapid turn-around from prototype to production.