

# Specialty Connectors

## Custom Filtered Connectors for MIL & Hi-Rel Applications

API Technologies' Spectrum Control brand offers a complete line of compact and extended shell filtered connectors providing a wide range of design flexibility. Our compact shell filtered connectors offer designers an effective filtering device that reduces the amount of real estate required within a product enclosure. Our extended shell connectors are constructed by adding either planar or tubular capacitor filtering to the rear of a standard connector, which makes them ideal when quick turnaround is required for prototype devices.

Styles offered include the following, as well as custom designs.

- MIL-DTL-38999
- MIL-DTL-55116
- MIL-DTL-83723
- MIL-DTL-24308
- MIL-DTL-26482
- MIL-DTL-5015

We offer tubular and planar style filtered arrays in Pi, LC, T and C circuits with TVS protection also available. Reliability is ensured through 100% testing of each position for critical electrical parameters.

#### **Custom Unfiltered Connectors**

API also offers unfiltered custom connector design and manufacturing. Parts can be designed to meet your mechanical and environmental specifications or those of similar QPL connectors.

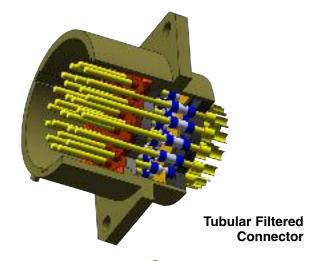
#### **Features**

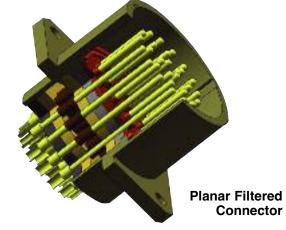
- Built to MIL specifications
- Custom shells to fit your available space
- Multiple terminations available
- Built to meet various environmental requirements
- Integral strain relief
- Power, signal and coax line combinations

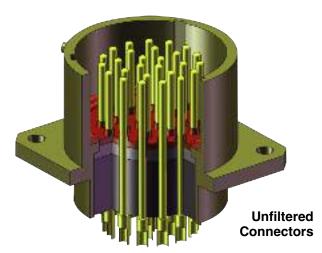
### Vertically Integrated

API's Spectrum Control line of custom filtered and unfiltered connector offerings are fully vertically integrated. Components including capacitors and shells are manufactured by API, providing our customers high quality parts at very competitive prices, with the industry's shortest lead times.











# Custom Filtered Connectors MIL and High Reliability

API's Spectrum Control brand offers a premium line of custom and specialty filtered connectors. These custom high reliability, circular, rack and panel and ARINC connectors have a reputation for superior quality and performance. Several types of filtering are available (See figure at right).

### **Electrical Specifications**

Operating

Temperature . . . . . . . . -55°C - 125°C

Capacitance . . . . . . . . . Up to 1µF

Capacitance Tolerance . . . . . ±10%, ±20%, +100%

Capacitance Rating..... Up to 1500VDC

Dielectric

Withstanding Voltage . . . . Up to 3000VDC

Dissipation Factor . . . . . < 3.5%

Insulation Resistance . . . . . 1000  $M\Omega,\,\mu F$  or  $10KM\Omega$ 

The electrical properties listed above are typical, and can be exceeded based on customer requirements and mechanical configuration. Since many variables affect the design, it is best to contact us directly for a detailed assessment of your connector needs.

