

# Amphenol<sup>®</sup>/Matrix<sup>®</sup> Miniature Cylindrical MIL-C-83723, Series III Connectors

## general description, features and benefits

**Amphenol broadens their Miniature Cylindrical Family of Connectors with the addition of the Matrix<sup>®</sup> Product line of MIL-C-83723, Series III Connectors.**

This series provides many choices within the range of a medium sized, environmentally resistant cylindrical connector. With three coupling style choices - bayonet, threaded and quick-disconnect - the versatility of this family makes it increasingly popular for panel mount, box mount and line-to-line applications in aircraft. For general duty environmentally resistant requirements, this family of connectors provides a wide range of interconnection solutions.

### **Amphenol<sup>®</sup>/Matrix<sup>®</sup> MIL-C-83723, Series III Connector Design Characteristics**

- Recommended operating voltage to 600 VAC (RMS) at sea level
- Complete environmental sealing includes individual contact seals and a silicone elastomer interfacial seal with raised barriers around each pin, a shell-to-shell seal and an insert-to-shell seal. Sealing over a wide range of wire diameters is assured by a triple-webbed grommet design
- Captive coupling nut prevents tampering, while a reduced coupling ring ramp allows easier mating
- Incorporates crimp rear release contacts in sizes 12, 16 and 20; contact arrangements accept 2 to 61 circuits
- Contacts conform to MIL-C-39029 and use standard qualified rear-release type plastic tools
- Insertion and removal of contacts from the rear of the connector assures no damage to the front that might affect the sealing characteristics
- Grommets are constructed of tear-resistant elastomer and experience no degradation when exposed to a broad range of fluids
- Closed entry socket side of the insert is designed with a lead-in chamfer and a hard face that will accept a pin contact bent within pre-established limits

### **BAYONET COUPLING CONNECTORS**

- Quick positive coupling assured by 3 point bayonet coupling system; visual confirmation of complete coupling
- Five key/keyway design eliminates mismatching
- Shell sizes 8 – 24 in the following mounting styles:
  - wall mounting receptacle
  - jam nut receptacle
  - straight plug, straight plug with RFI grounding (provides EMI shielding)
- MS and Proprietary versions available
- Alternate positioning available
- Intermateable with most MIL-C-26500 bayonet coupling connectors
- Aluminum shells with black anodized, cadmium or electroless nickel finish options; also shells of passivated stainless steel are available.

### **THREADED COUPLING CONNECTORS**

- Threaded coupling offers greater resistance to decoupling with a visual full mating indicator band on the shell
- Shell sizes 8 – 28 in the following mounting styles:
  - wall mounting receptacle
  - jam nut receptacle
  - straight plug, straight plug with RFI grounding (provides EMI shielding), and straight plug with a self-locking clutch plate
- MS and Proprietary versions available
- Alternate positioning available
- Intermateable with most MIL-C-26500 threaded coupling connectors
- Aluminum shells with black anodized, cadmium or electroless nickel finish options; also shells of passivated stainless steel are available.

### **QUICK-DISCONNECT COUPLING CONNECTORS**

- Push-pull, quick-disconnect coupling is available in a straight plug, that can be ordered with or without a lanyard release mechanism