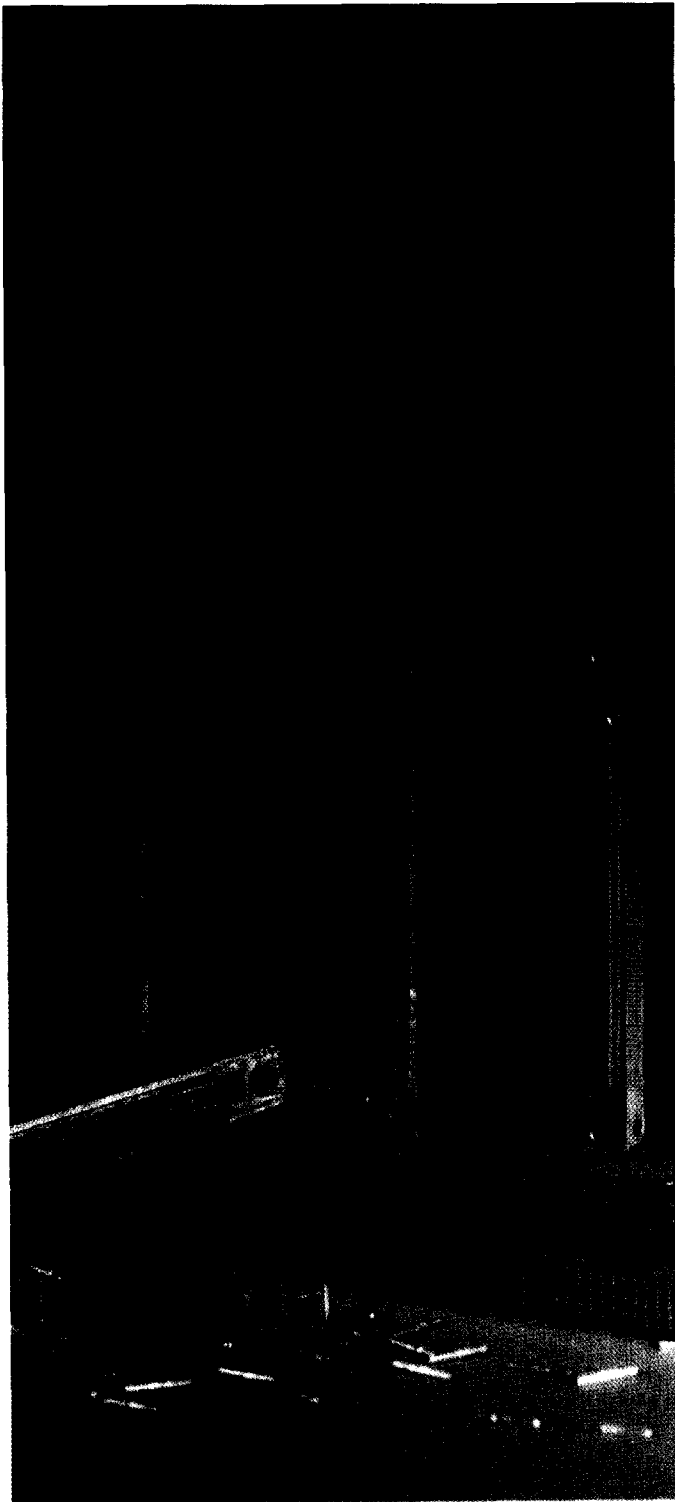


Amphenol® Low Mating Force Rectangular Connectors* MIL-C-55302 (M55302/166 thru /172)



Featuring the Amphenol® B³ Bristle® Brush® Contact

- **Maximum Performance Efficiency and Cost Effectiveness**
- **Low Mating and Unmating Forces**
 - 70% to 90% reduction in mating/unmating forces from conventional pin-socket contacts
 - high circuit count interconnections now practical
 - no need for external board support structures for connectors up to 7 inches in length. A center support is recommended for Mother Board Connectors over 7 inches
- **User Oriented**
 - two, three and four row contact arrangements, 10 to 100 contacts per row in one contact per row increments
 - accessories available to suit latching, piloting and polarization requirements
 - termination versatility; solderless wrap, straight and 90° PC stud, crimp and compliant pin
 - front release/front removable contacts in Mother Board, PC and Daughter Board versions
 - rear release/rear removable crimp contacts for discrete wires, or printed circuit pins are provided with Input/Output Connector; size 22D wire well to accommodate 22 to 28 AWG wire
 - up to 256 keyed mating polarizations available
 - termination plating options and lengths
 - standard application tools
- **Durable**
 - extended service life, over 20,000 mating/unmating cycles
 - noble plated brush bunch bristle wires
 - designed-in serviceability
- **Superior Electrical Capability**
 - redundant current paths
 - minimized constrictive resistance
 - uniform current densities
 - stable time/life contact resistance
 - electrical and gas tight contact site integrity
- **Performance**
 - voltage rating:

SL	70,000 ft.
1300	325
 - one and one-half ounce typical contact engaging/separating forces
 - 7 milliohm average contact resistance for row A contacts†
 - 3 ampere – PCB contacts
 - 5 ampere – wire wrap/crimp contacts
 - -65° C to +125°C temperature rating
 - 5 gigaohms minimum insulation resistance

† Resistance will vary depending on the point of measurement and the length of the contact.

- **Functionally Designed**

- .100 inch center to center contact spacing, square grid
- high performance polyester dielectric moldings (UL94V-O)
- contacts easily removed and replaced

- **Materials**

- Connector Body – Glass-filled thermoplastic molding material in accordance with MIL-M-24519 type GPT-15F and/or Grade B, Class 15 of MIL-P-46161.
- Polarization Keys – Glass-filled acetal plastic molding material in accordance with MIL-P-46137
- Locking Screw/Mounting Bushing – Corrosion resistant steel AISI 300 types passivated in accordance with QQ-P-35

- **Contacts**

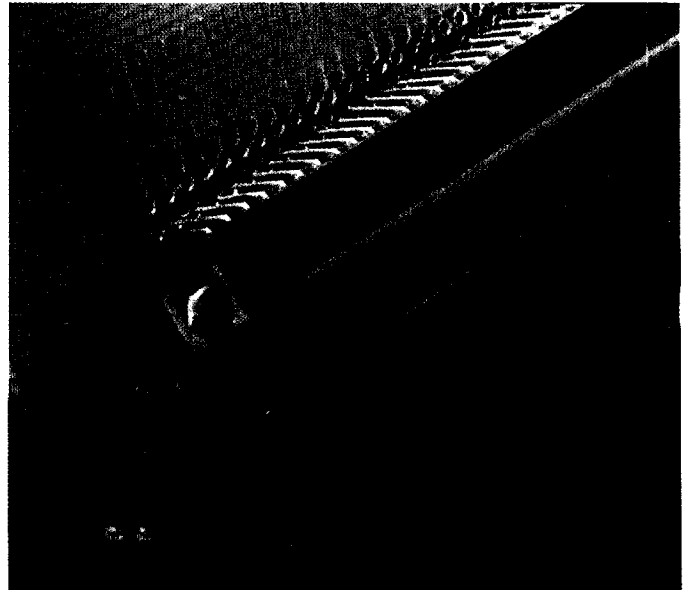
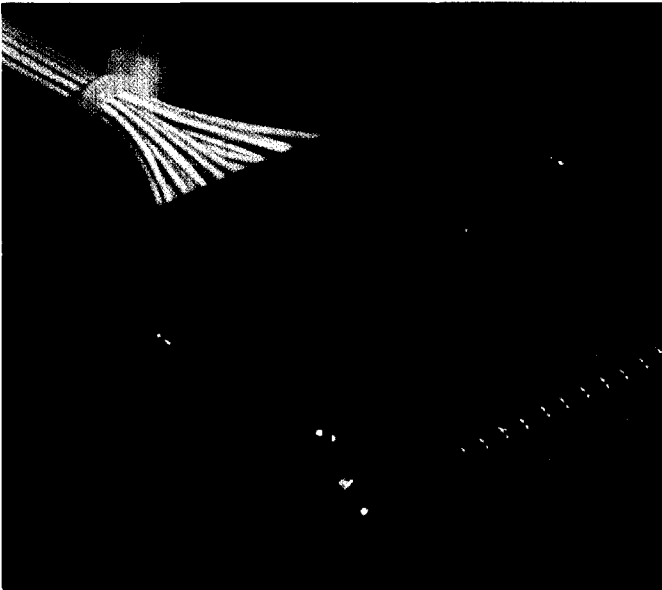
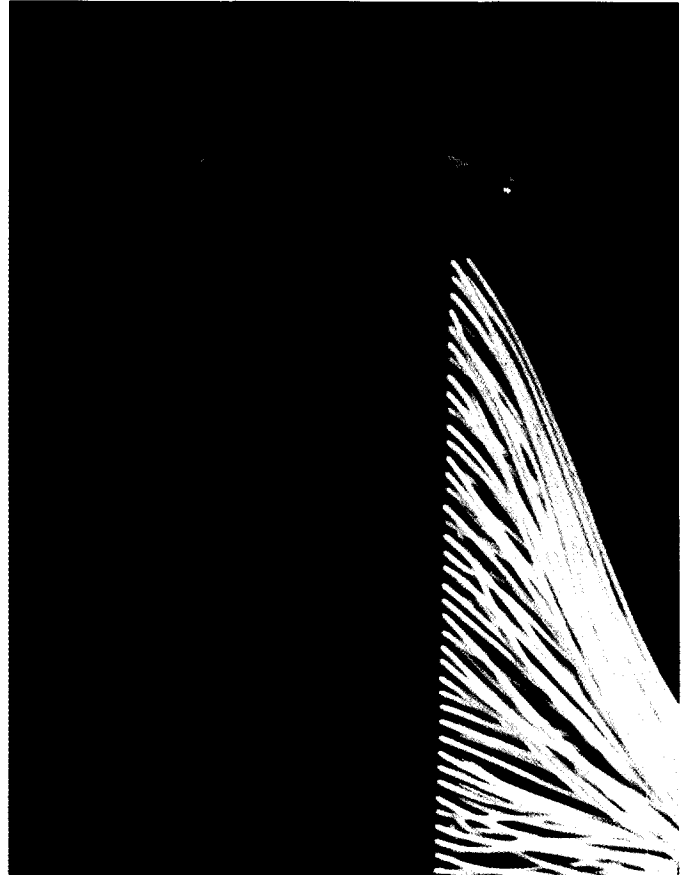
- Holders – Copper alloy in accordance with Federal Specification QQ-B-626 or SAE J463
- Wire – Beryllium copper in accordance with Federal Specification ASTM B197
- Sleeves – If applicable, stainless steel in accordance with AMS-5514 passivated in accordance with ASTM A967

* U.S. Patent No. 3,725,844 4,168,569 and 4,358,179 as well as additional U.S. Patents Pending related to the products described in this catalog.

Upper Right: An Input/Output and Mother Board Connector

Lower Left: Unmated Input/Output and PC Connector

Lower Right: Mated Mother Board and Daughter Board Connector



Low Mating Force

signal, power, coax contacts

Power and/or coax contacts* are now available in combination with Brush signal contacts in one high density (hybrid) connector.

- Available with 100 brush signal contacts with up to 12 size 16 power or coax contacts in a 2 row connector
- Available with 180 brush signal contacts with up to 12 size 12 power or coax contacts in a 3 row connector
- Use of standard MIL-C-38999, Series II power and coax contacts

Consult Amphenol Aerospace, Sidney, NY (607-563-5011) for assistance in solving design problems or for specific part numbers that will provide the proper combination of signal, power and coax contacts to meet your connector application requirements.

* Power and coax contacts are not provided with the connector and must be purchased separately.

