

Combo D Connectors

Aptiv's Combo D connectors incorporate signal, power, RF, high voltage and fiber optic contacts in one D-shell. The Combo D connector consolidates cabling, saves space and simplifies system design. Ideal for the harsh environments found in military, aerospace, medical and industrial applications, the Combo D offers high reliability and the flexibility needed in today's electronic systems.



KEY FEATURES & BENEFITS

- Space-Saving Design: Combines multiple interconnect types in one compact connector
- Simplified Cabling: Reduces cable count and panel space
- Versatile Contact Options: Mix power, signal, RF, HV, and fiber in tailored layouts
- High Reliability: Precision-machined contacts ensure secure, low-resistance connections
- EMI/RFI Shielding: Metal shell delivers superior interference protection
- Multiple Grades Available: Options for industrial, mil/aero, and spaceflight use
- Flexible Terminations: Crimp, solder cup, PC tail, and wire-wrap styles available
- Environmental Sealing: IP67-rated variants for harsh environments
- Blind Mating Capable: Guide hardware enables easy, reliable panel mating

PRODUCT SPECIFICATIONS

Electrical Properties	
Current Rating (Signal)	3A to 7.5A (per contact)
Current Rating (Power)	10A to 70A (per contact)
Voltage Rating (Signal)	250 VAC to 300 VAC max. at sea level
Voltage Rating (Power)	250 VAC to 600 VAC max. at sea level
Voltage Rating (High Voltage)	Up to 2.8 kV
Insulation Resistance	1000 M Ω to 5000 M Ω min at 500 VDC
Dielectric Withstanding Voltage (DWV)	1000 VAC to 2000 VAC (sea level)
Contact Resistance (Signal)	5 m Ω to 10 m Ω max
Contact Resistance (Power)	1 m Ω to 2 m Ω max
RF Coaxial Impedance	50 Ω , 75 Ω
RF Coaxial Frequency Range	DC to 5 GHz (or higher)
RF Coaxial VSWR	1.2:1 to 1.5:1 max

PRODUCT SPECIFICATIONS CONTD.

Environmental Properties	
Operating Temperature	to +155°C
Thermal Shock	MIL-STD-202, Method 107
Humidity	MIL-STD-202, Method 103
Salt Spray / Corrosion	MIL-STD-202, Method 101
Vibration	MIL-STD-202, Method 204
Shock	MIL-STD-202, Method 213
Ingress Protection (IP) Rating	IP20 (standard), IP67 (sealed versions)
Fluid Resistance	Resistant to common industrial/aerospace fluids

PRODUCT SPECIFICATIONS CONTD.

Mechanical Properties	
Mating Cycles	200 to 500 cycles min
Shell Sizes	5 standard sizes (E, A, B, C, D)
Shell Material	Steel, Copper Alloy, Aluminum Alloy, Stainless Steel
Insulator Material	Glass-Filled Polyester (UL94V-0), Thermoplastic
Contact Material	Copper Alloy
Contact Types	Signal, Power, Coaxial, High Voltage, Fiber Optic
Termination Types	Crimp, Solder Cup, PC Tail, Wire-Wrap, Press-Fit
Contact Insertion Force	4.5 kg max (per contact)
Contact Separation Force	0.3 kg min (per contact)
Polarization	D-shaped shell, guide pins