

# **MDBR Series Rugged D-Subminiature Connectors**

### RUGGED D-SUB CONNECTORS FOR HARSH ENVIRONMENT APPLICATION, GENERATION 2

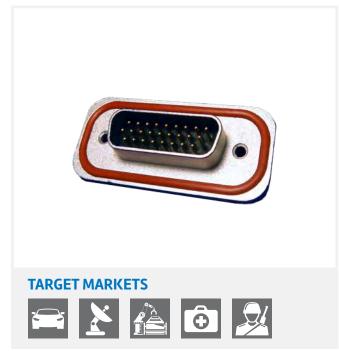
Amphenol's MDBR series D-Sub Connectors serve many markets and applications across the globe including Automotive, Communications, Industrial, Medical and Military.

MDBR series is a line of Generation 2 ruggedized D-Sub connectors with die cast housings and IP67 sealing, designed for Harsh Environment applications. MDBR provides a standard D-Sub interface. Protection is provided for the ingress of water when immersed to a 1.0m depth for a period of 30 minutes and the ingress of dust less than 75 microns under 2 kPa vacuum pressure.

- IP67 environmental sealing protects against water and dust
- Die cast metal housings protect against mechanical damage
- Operating temperature range from -40°C to +105°C for extreme conditions
- RoHS compliant to meet environmental standards

#### **FEATURES**

- Internal and external seals made with flexible silicone rubber
- Die cast metal housings
- Improved thermal cycling performance
- Mates with existing standard connectors
- Similar in size compared to standard equivalents
- Machined contacts plated with 30u" gold
- Wide variety of mounting and termination options
- RoHS compliant



#### BENEFITS

- Excellent sealing to IP67 and higher protection over wide temperature range
- Protects equipment from water and dust incursion
- Mechanically rugged and stable to protect against shock, vibration and impact
- Prevents distortion
- Suitable for outdoor application with wide operating temperature range
- Suitable for a wide variety of mating connectors which are readily available
- Able to replace existing standard parts with little to no changes
- Extremely durable for demanding applications
- Replace virtually any existing standard connector using standard footprints and mounting hardware
- Meets environmental, health and safety requirements

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Amphenol Information Communications and Commercial Products

# **TECHNICAL INFORMATION**

#### **MATERIAL**

- External Shell: Die Cast Zinc, Nickel Plated
- Insulator Housing: High Temperature Resistant Nylon, Glass Reinforced, UL940V-0, Black
- Contacts: Machined Phosphor Bronze or Brass Alloy Plated with 0.76um (30u") min Gold over 1.27um (50u") min Nickel
- Gaskets & O-rings: Silicone Rubber, Black or Red
- Jack Sockets: Stainless Steel
- Dust Covers: Silicone Rubber, Grey, with Nickel **Plated Brass Bushing**
- Threaded Inserts: Nickel Plated Steel

#### **ELECTRICAL PERFORMANCE**

- Current Rating: Standard Density 5A max., High Density - 3A max.
- Contact Resistance: 20mΩ max.
- Insulation Resistance: 5000mΩ min.
- Dielectric Withstanding Voltage: Standard Density-1500V DC, High Density-1200V DC

#### **MECHANICAL PERFORMANCE**

- Water & Dust Protection Level: Code IP67 per IEC 60529
- Operating Temperature: -40°C to +105°C
- Contact Insertion Force: Standard Density 5.0N (18ozf) max, 3.3N (12ozf) max Average Initial, High Density - 5.0N (18ozf) max, 2.6N (9.5ozf) max Average Initial
- Durability: Per EIA 364–09, 500 Mating Cycles
- Vibration: Per EIA 364–28 Condition V, Letter D, 4.5 Hrs, No Discontinuity > 1µs
- Shock: Per EIA 364–27 Test Condition A (11ms, 50g, 1/2 Sine), No Discontinuity > 1µs

#### **SPECIFICATION**

Amphenol Product Specification: MIL-DTL-24308

#### **APPROVALS AND CERTIFICATIONS**

RoHS

#### **ENVIRONMENTAL**

- Temperature Life w/o Load: Per EIA-364-17, 105°C, 1000 Hours
- Thermal Shock: Per EIA-364-32, -55°C to +105°C, 25 Cycles
- Humidity: Per EIA-364-31, 10 Cycles, 240 Hrs, 25°C to 65°C, 90-95%RH, with -10°C Cold Shock
- Thermal Cycling: Per EIA-364-110, 500 Cycles, 15°C to 85°C
- Mixed Flowing Gas: Per EIA 364-65 Class IIA (Cl2, No2, H2S & SO2), 14 Day Exposure
- Isopropyl Alcohol & 5% Sodium Hydroxide Solution, 24 Hrs Each
- Solderability: Per EIA-364-52, 95% Coverage after Category 2 Steam Aging

#### PACKAGING

Tray

#### **TARGET MARKETS/APPLICATIONS**



Transportation



Datacom Telecom



Energy Industrial Rail

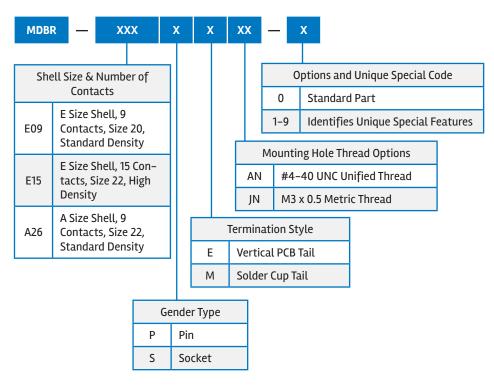




Military

Medical

### PART NUMBER SELECTOR



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#### Disclaimer

Please note that the above information is subject to change without notice.