

# MDBR Rugged D-sub Connector

Product Specification S6054C Rev 1.1

Amphenol

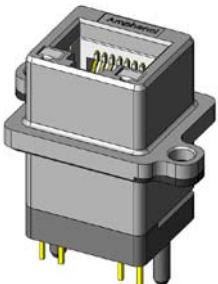
*Now you're connected!*

## About Amphenol Commercial Products

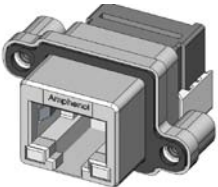
Amphenol's commercial connector products are used in a variety of end user applications including networking, telecom, server & computer, storage & HDD, consumer electronics and entertainment, professional audio & Industrial & Military/Aerospace.

## Related Products

### MRJ



MRJ-5480-01 SHOWN VERTICAL, PCB TAIL, 8 POSITION RJ45

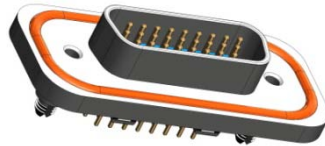


MRJ-5380-01 SHOWN RIGHT ANGLE, PCB TAIL, 8 POSITION RJ45

### MUSB



MUSB-C111-30 SHOWN SERIES A, RIGHT ANGLE, STACKED



P/N MDBR-A26PE-860 SHOWN 26 POSITION HIGH DENSITY PIN, VERTICAL PCB TAILS WITH BOARDLOCK



P/N MDBR-E15SM-860 SHOWN 15 POSITION HIGH DENSITY SOCKET, SOLDER CUP TERMINATION WITH BOARDLOCK



P/N MDBR-E09PE-860 SHOWN 9 POSITION PIN, VERTICAL PCB TAILS WITH BOARDLOCK

## Overview

This Product Specification defines the general use and performance parameters for Amphenol's MDBR series of Rugged D-sub connectors.

Availability: 9 position standard density pin and socket connectors, 15 and 26 position high density pin and socket connectors available. Termination options include vertical PCB tails and solder cups suitable for up to 20 AWG for the 9 position connectors or 22 AWG for the 15 or 26 position.

## Usage

The connector system is designed to provide a standard D-sub interface for enclosures exposed to harsh environments. Protection is provided for IP68 applications per IEC 60529 specification. Protection is provided in the mated or unmated condition. A sturdy die cast shell provides excellent strength and durability in the most demanding applications while a high temperature resistant plastic housing captures high quality gold plated screw machined copper alloy contacts.

## Applications

Intended for use in applications such as:

- Outdoor equipment
- Portable devices
- Automation equipment
- Industrial and agricultural equipment

## Connector Electrical Characteristics

Maximum current: 5A per contact for Std density, 3A per contact for higher density.

Temperature rise: Meets the UL requirement of 30° C ΔT

Maximum voltage: 200V DC or 125V AC per contact

Contact resistance: 20 mΩ max

Insulation Resistance: 5 GΩ at 200V DC for 60 seconds

DWV: 1500V minimum DC for 60 seconds

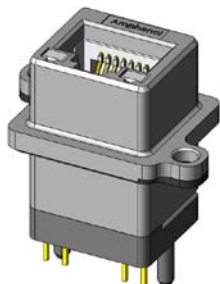
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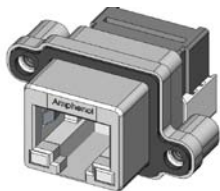
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### MUSB



MUSB-C111-30 SHOWN SERIES A, RIGHT ANGLE, STACKED

## Connector Mechanical Characteristics

9, 15 or 26 position D-sub interface  
Durability: 500 mating cycles

## Material Requirements

MDBR connectors are RoHS compliant.

Unless otherwise specified, the materials for each component shall be:

- Contacts
  - Base material – Copper alloy
  - Plating
    - Goldplating over 50  $\mu$ " (1.27  $\mu$ m) min Nickel as defined on product drawings.
- Housings: Black color, glass-reinforced, lead-free solder reflow process compatible thermoplastic, UL94V-0 rated
- Shell: Die cast Zinc alloy
  - Plating – 50  $\mu$ " (1.27  $\mu$ m) min Nickel
- Gasket: Silicone rubber

Operating temperature -40° to +105° C

Storage temperature -40° to +105° C

## Process Characteristics

Connectors are RoHS compliant and can resist lead free wave soldering processes.

## Available Documents

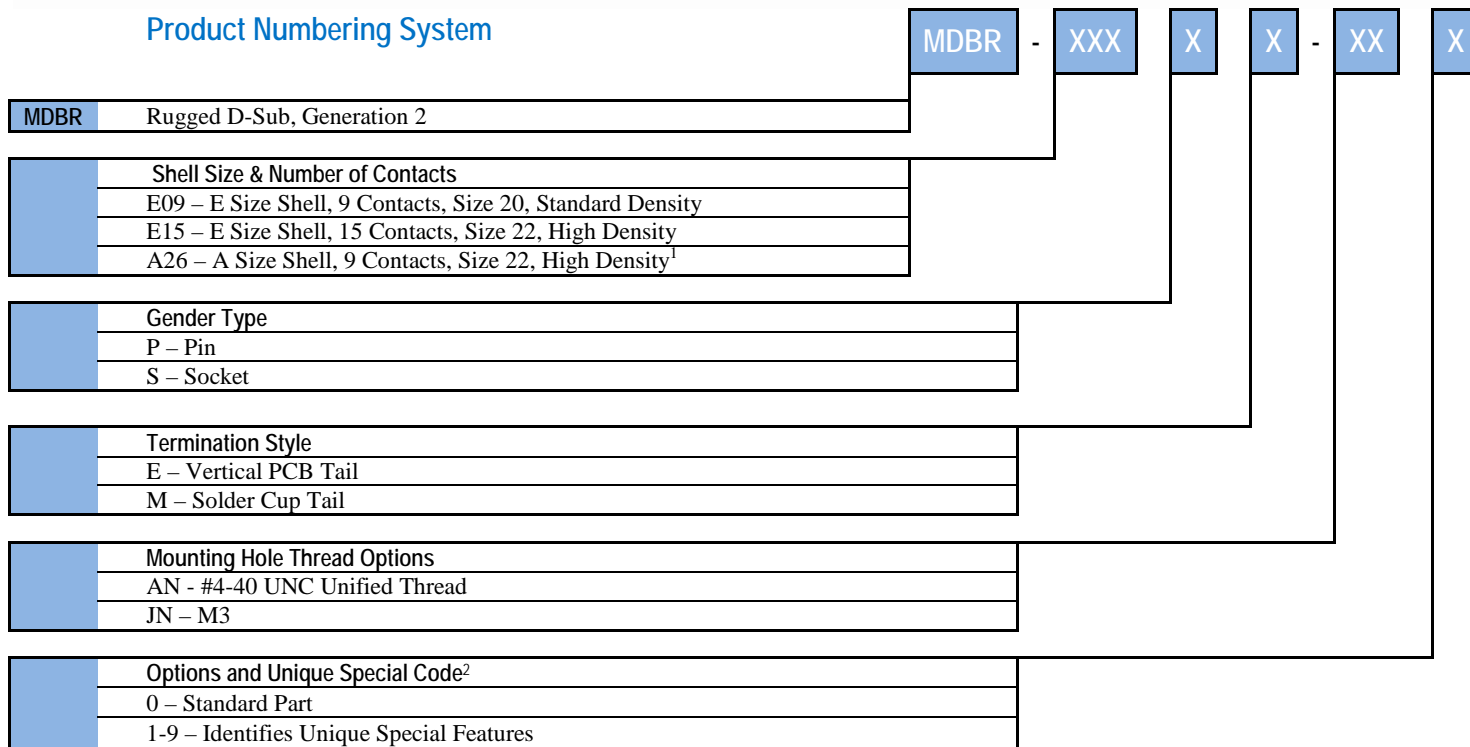
### Drawing Numbers:

P-MDBR-A26PE-860  
P-MDBR-A26PE-XXX  
P-MDBR-A26PM-XXX  
P-MDBR-E09PE-860  
P-MDBR-E09PE-XXX  
P-MDBR-E09PM-XXX  
P-MDBR-E09SE-860  
P-MDBR-E09SE-XXX  
P-MDBR-E09SM-XXX  
P-MDBR-E15PE-AN1  
P-MDBR-E15PE-XXX  
P-MDBR-E15PM-AN1  
P-MDBR-E15PM-XXX  
P-MDBR-E15SE-AN1  
P-MDBR-E15SE-XXX  
P-MDBR-E15SM-XXX

MDBR Rugged D-Sub Connector, 26 Size High Density Pin, Vert PCB Tail, Boardlock  
MDBR Rugged D-Sub Connector, 26 Size High Density Pin, Vert PCB Tail  
MDBR Rugged D-Sub Connector, 26 Size High Density Pin, Vert Solder Cup Tails  
MDBR Rugged D-Sub Connector, 9 Size Pin, Vert PCB Tail, Boardlock  
MDBR Rugged D-Sub Connector, 9 Size Pin, Vert PCB Tail  
MDBR Rugged D-Sub Connector, 9 Size Pin, Vert Solder Cup Tails  
MDBR Rugged D-Sub Connector, 9 Size Skt, Vert PCB Tail, Boardlock  
MDBR Rugged D-Sub Connector, 9 Size Skt, Vert PCB Tail  
MDBR Rugged D-Sub Connector, 9 Size Pin, Vert Solder Cup Tails  
MDBR Rugged D-Sub Connector, 15 Size High Dens Pin, Ext PCB Tails, Jack Skts  
MDBR Rugged D-Sub Connector, 15 Size High Dens Pin, Vert PCB Tails  
MDBR Rugged D-Sub Connector, 15 Size High Dens Pin, Solder Cup Tails, Boardlock  
MDBR Rugged D-Sub Connector, 15 Size High Dens Pin, Solder Cup Tails  
MDBR Rugged D-Sub Connector, 15 Size High Dens Skt, Ext PCB Tails, Jack Skts  
MDBR Rugged D-Sub Connector, 15 Size High Dens Skt, Vert PCB Tails  
MDBR Rugged D-Sub Connector, 15 Size High Dens Skt, Solder Cup Tails

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Product Numbering System



- Notes:
- 1) The MDRB series with 26 contacts is currently available in the pin contact version only.
  - 2) Consult with Amphenol for additional terminations, contact tail lengths, mounting styles or other special requirements