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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# MDB Rugged D-sub Connector

Product Specification S6016C Rev 1.1

Amphenol

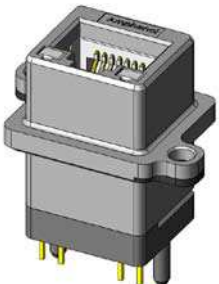
*Now you're connected!*

## About Amphenol Commercial Products

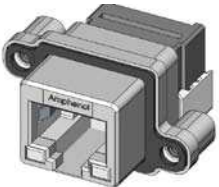
Amphenol's commercial connector products are used in a variety of end user applications including networking, telecom, server & computer, storage & HDD, consumer electronics and entertainment, professional audio & Industrial & Military/Aerospace.

## Related Products

### MRJ



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

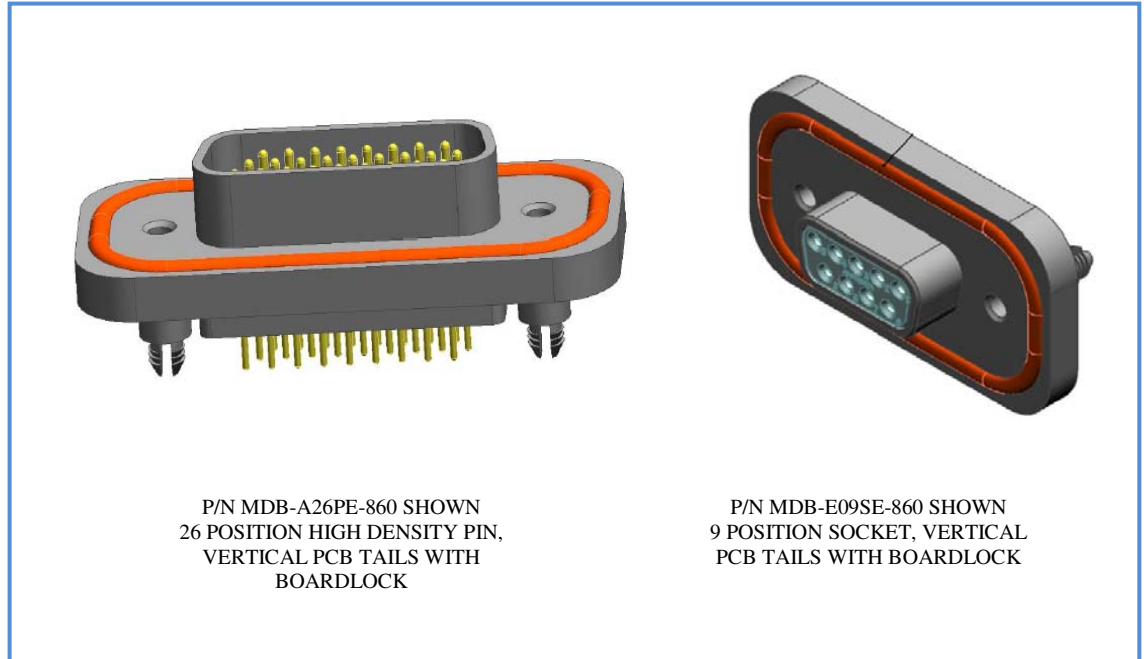


MRJ-5380-01 SHOWN RIGHT ANGLE, PCB TAIL, 8 POSITION RJ45

### MUSB



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



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

P/N MDB-E09SE-860 SHOWN 9 POSITION SOCKET, VERTICAL PCB TAILS WITH BOARDLOCK

## Overview

This Product Specification defines the general use and performance parameters for Amphenol's MDB (86X) series of Rugged D-sub connectors.

Availability: 9 position standard density pin and socket connectors available, 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 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 IP67 applications per IEC 60529 specification. 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. 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

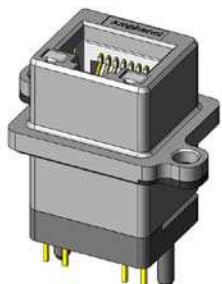
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## Connector Electrical Characteristics

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

## Connector Mechanical Characteristics

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

## Material Requirements

MDB connectors are RoHS compliant.

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

- Contacts
  - Base material – Copper alloy
  - Plating
    - Goldplating over 50 μ" (1.27 μm) 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 μ" (1.27 μm) 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

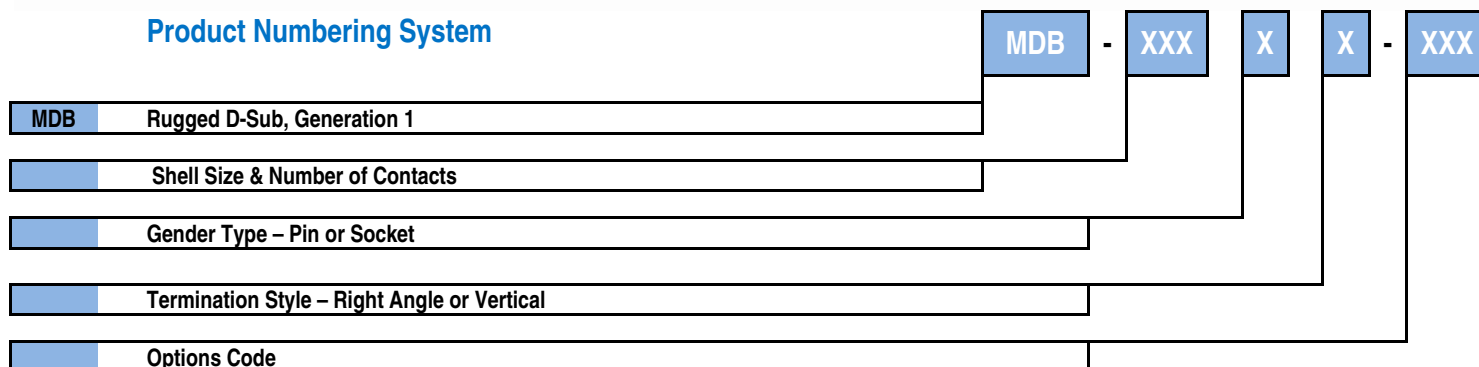
### Drawing Numbers:

P-MDB-A26PE-860  
 P-MDB-A26SE-861  
 P-MDB-E09PM-860  
 P-MDB-E09SM-860  
 P-MDB-E09PE-860  
 P-MDB-E09SE-860

MDB Rugged D-Sub Connector, 26 Size High Density Pin, Vert PCB Tail, Boardlock  
 MDB Rugged D-Sub Connector, 26 Size High Density Skt, Vert PCB Tail, Boardlock  
 MDB Rugged D-Sub Connector, 9 Size Pin, Solder Cup Termination  
 MDB Rugged D-Sub Connector, 9 Size Socket, Solder Cup Termination  
 MDB Rugged D-Sub Connector, 9 Size Pin, Vert PCB Tail, Boardlock  
 MDB Rugged D-Sub Connector, 9 Size Socket, Vert PCB Tail, Boardlock

*Now you're connected!*

## Product Numbering System



Available Standard Part Numbers	
<b>MDB-E09SA-700</b>	9 size standard density, socket, right angle tails, all plastic shell, rear mount with jack sockets installed
<b>MDB-E09PE-760</b>	9 size standard density, pin, vertical PCB tails, high profile die cast shell, front mount with jacket sockets & dust cover
<b>MDB-E09PE-765</b>	9 size standard density, pin, vertical PCB tails, high profile die cast shell, front mount
<b>MDB-E09SE-760</b>	9 size standard density, socket, vertical PCB tails, high profile die cast shell, front mount with jack sockets & dust cover
<b>MDB-E09SE-765</b>	9 size standard density, socket, vertical PCB tails, high profile die cast shell, front mount
<b>MDB-B25SE-765</b>	25 size standard density, socket, vertical PCB tails, high profile die cast shell, front mount
<b>MDB-E15PE-766</b>	15 size, high density, pin, vertical PCB tails, high profile die cast
<b>MDB-E09PE-860</b>	9 size standard density, pin, vertical PCB tails, low profile die cast shell, rear mount
<b>MDB-E09SE-860</b>	9 size standard density, socket, vertical PCB tails, low profile die cast shell, rear mount
<b>MDB-A26PE-860</b>	26 size high density, pin, vertical PCB tails, lowprofile die cast shell, rear mount