

FLH Series Mini Sealed 2.5 mm Pitch Connectors Amphenol

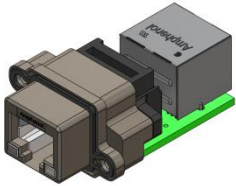
Product Specification S6145C Rev 2.2

Now you're connected!

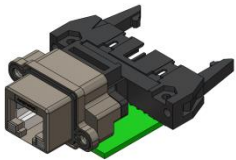
About Amphenol Commercial Products

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.

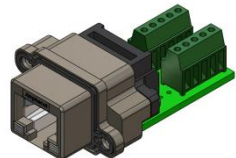
MRJ/MRJR PCB Options



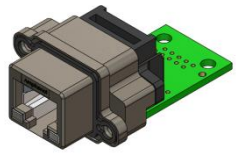
MRJR-8780-01
CAT5e RJ45 on PCB
with Matching RJ45



MRJR-5580-01
Standard RJ45 on PCB
with Matching Cable Header



MRJR-5980-01
Standard RJ45 on PCB with
Matching Terminal Block

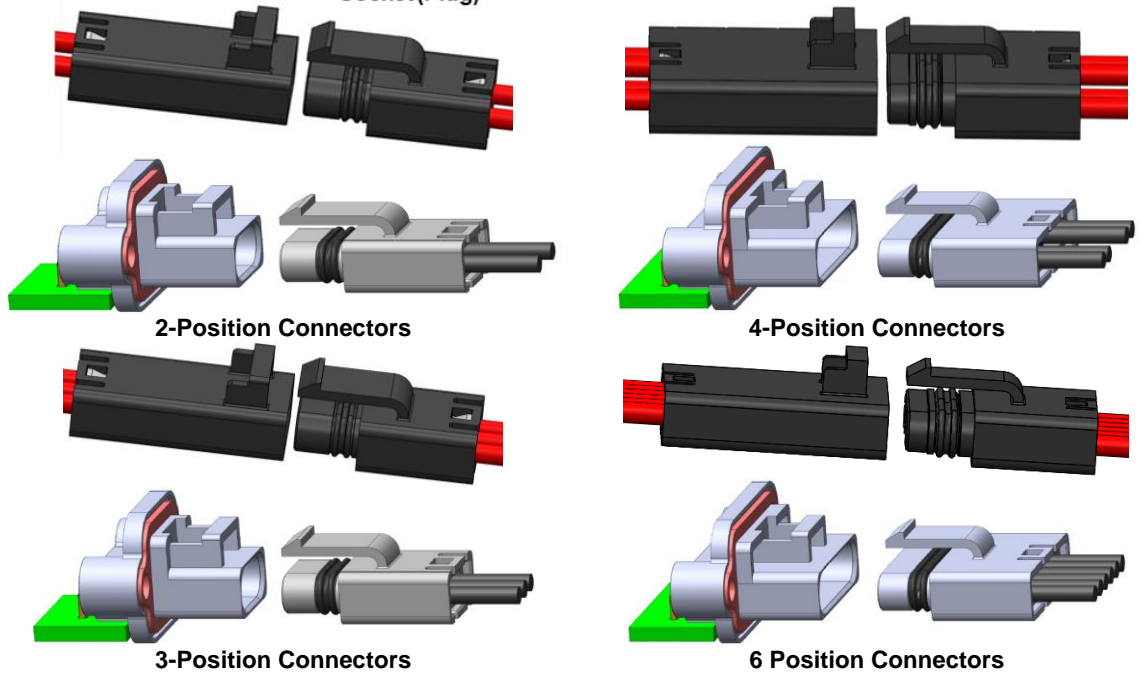


MRJR-5C80-01
Standard RJ45 on PCB
For Discrete Wiring

Pin (Receptacle) and Socket (Plug) Connectors

Pin (Receptacle)

Socket (Plug)

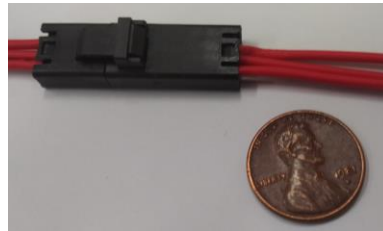


2-Position Connectors

4-Position Connectors

3-Position Connectors

6 Position Connectors



3-position pin and socket connectors shown mated on left. Penny included as size reference.

Overview

This product specification defines the general use and performance parameters for Amphenol's FLH Series Mini Sealed 2.5 mm Pitch Connectors for use with crimp contacts.

Availability:

- Pin (receptacle) and socket (plug) connectors
- 1 to 3-position connectors, overall width: 10.30 mm
- 4 to 6-position connectors, overall width: 17.80mm

Usage

The connector system is designed to provide a wire-to-wire IP67-rated (per IEC 60529) solution in the mated condition. Ideal for harsh environments. Compact design for space saving applications.

Applications

Intended for use in applications such as:

- Lighting
- Appliances
- HVAC
- Harsh Environments

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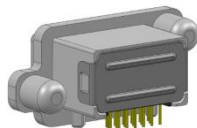
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Related Products

MHDR Series



MHDR-A511-30
Type-A HDMI,
Vertical PCB Tail



MHDR-A111-30
Type-A HDMI,
Right Angle PCB Tail

MUSBR Series



MUSBR-A511-40
Type-A USB, Vertical
PCB Tail, Low-Profile

MDBR Series



MDBR-E09SM-AN0
9-Size Socket D-Sub,
Solder Cup

Connector Electrical Characteristics

- Voltage Rating: 250 VAC max
- Current Rating: 7A - 18 AWG
5A - 20 AWG
3A - 22 AWG
- Contact Resistance: Δ 20 m Ω max
- Insulation Resistance: 1000 M Ω min
- Dielectric Withstanding Voltage: 1800 VAC @ sea level

Connector Mechanical Characteristics

- Thermal Shock: 25 cycles @ -40 to +105°C, per EIA-364-32, Method A, Cond. II
- Humidity: Per EIA-364-31, Method IV, Cond. B, Omitting 7b
- Mechanical Shock: 50 g's, 1/2 sine, 11 ms, 18 pulses, per EIA 364-27, Cond. A
- Vibration: 3.1 G_{rms}, 20 to 500Hz, 90 mins / axis, per EIA 364-28, Cond. VII, Letter D
- Durability: 100 mating cycles, per EIA-364-09
- Operating Temperature: -40°C to +105°C
- Ingress Protection Rating: IP67 in mated condition, per IEC 60529
- Temperature Rise: 105°C rise max, per EIA-364-70
- Contact Insertion Force: 20 N max, per EIA-364-5
- Contact Retention Force: 18 N min, per EIA-364-29
- Housing Latch Retention: 30 N min, per EIA-364-98

Assembly Process Characteristics

Contacts are to be crimped and inserted into the respective housing assembly, refer to Application Specification S6147C for more information.

Material Characteristics

FLH Series connectors are RoHS compliant per EU directive 2011/65/EU and amendments. Unless otherwise specified, the materials for each component shall be:

- Contacts: Phosphor Bronze with 2.54 μ m (100 μ " min Tin over 1.27 μ m (50 μ " min Nickel, 0.38 μ m (15 μ " and 0.76 μ m (30 μ " gold options also available
- Housing: High temperature thermoplastic, flammability rating: UL94 V-0, colour: black or white
- Seals: Silicone rubber, flammability rating: UL94 V-0, colour: black

Test Reports & Certifications

- QTP / QTR 9300747 Qualification Test Procedure / Report
- UL 1977 UL File Number E64911

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Related Products

MUSBR-XHD Series

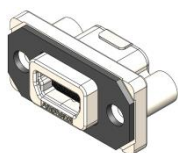


MUSBR-AHD2-821XX
Thumb Screw, Translucent Colour

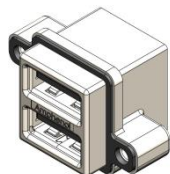


MUSBR-AHD2-221XX
Cap Screw, Black Colour

MUSB Series



MUSB-B151-34
Mini-B USB,
Right Angle PCB Tail



MUSB-C111-30
Stacked Type-A USB,
Right Angle PCB Tail

Available Documents

- **P-FLH-PX1-XX-X** Pin Housing Assembly, 1 to 6-Positions
- **P-FLH-SX1-XX-X** Socket Housing Assembly, 1 to 6-Positions
- **P-FLH-PX2-XX** Panel Mount Pin Connector, 1 to 6-Positions
- **P-FLH-PC136-XXX** Pin Contact, Crimp Termination
- **P-FLH-SC136-XXX** Socket Contact, Crimp Termination
- **P-FLH-CT-0-03** Hand Crimp Tool (Manual)
- **P-FLH-CT-0-02** Semi-Automatic Crimp Machine
- **P-FLH-CT-P-02** Pin Crimp Applicator (for Semi-Automatic Crimp Machine)
- **P-FLH-CT-S-02** Socket Crimp Applicator (for Semi-Automatic Crimp Machine)
- **S6147C** Application Specification

Packaging Information

- 1 to 3-Position Pin & Socket Connectors 500 connectors / PE bag, 8000 connectors / carton
- 4 to 6-Position Pin & Socket Connectors 300 connectors / PE bag, 3600 connectors / carton
- Pin & Socket Crimp Contacts 5000 contacts / reel, 4 reels / carton, 20k per / carton

Now you're connected!

Product Numbering System - Housing Assemblies

FLH - **P2** **1** - **00**

FLH Series

Housing Type

PX	P = Pin, X = Number of Positions (1 to 6)
SX	S = Socket, X = Number of Positions (1 to 6)

Configuration

1	Inline (Wire-to-Wire)
2	Right Angle Board-Mount (Pin Connector Only)

Unique Modifier

00	Black Housing (Standard)
W0	White Housing

Product Numbering System - Contacts

FLH - **PC** **1** **3** **6** - **T01**

FLH Series

Contact Type

PC	Pin Contact
SC	Socket Contact

Termination Style

1	Crimp Termination
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Wire Size

3	18 to 22 AWG
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Packaging

6	Standard Packaging
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Contact Plating

T01	100 μ " matte Tin
G15	15 μ " Gold
G30	30 μ " Gold