Compact Waterproof Automotive In-line Connector

# MX80 Series

CONNECTOR
MB-0354-2
March 2020

**RoHS Compliant**



The MX80 Series is a compact waterproof automotive in-line connector. It is a miniaturized connector ideal for use in areas where vehicle mounting space is limited. It is waterproof and dust resistant under IP67 guidelines.

## Applicable Market Segments

・Automotive applications such as side view mirrors, vehicle license plate lighting, etc.

## Features

- ISO/JASO standard 0.64 mm tab size
- Terminal Position Assurance on pin and socket housing
- Follows USCAR-2
- IP67 waterproof rating
- Compatible with 2.54mm pitch pin contacts
- Integrated bracket supports chassis fastening vehicle clips

## General Specifications

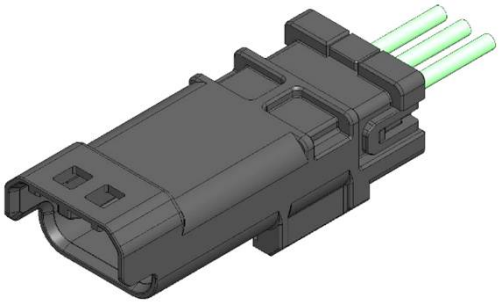
| | |
|---|---|
| Number of Contacts | 3 positions |
| Operating Temperature Range | -40ºC~ +125ºC |
| Contact Pitch | 2.54mm |
| Applicable Wire | 0.3~0.5mm$^2$ (Example cable types: FLRY-A, FLRY-B, AESSX, etc.) |
| Rated Current | 3.7A, when 0.35 mm$^2$ wire is used (Ambient temperature: 105ºC) |
| | 4.5A, when 0.5 mm$^2$wire is used (Ambient temperature: 105ºC) |
| Dielectric Withstanding Voltage | AC500V (1 minute) |

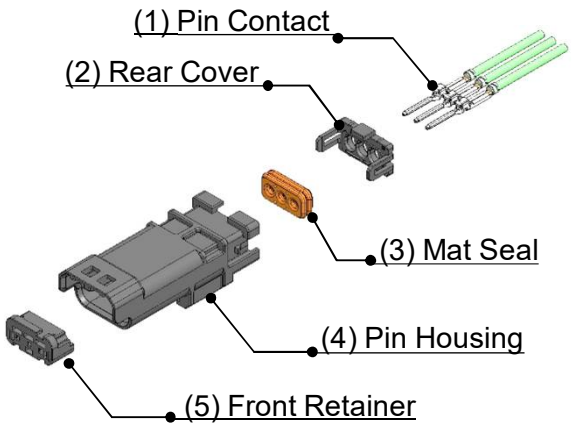
Current value is different for each operating temperature. Please contact us for details.

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Features

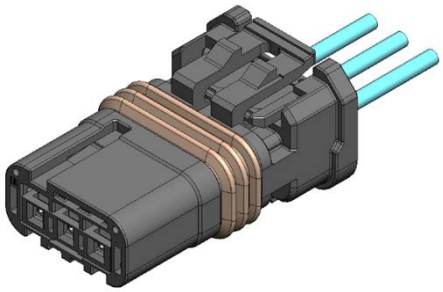
## In-line Pin Connector

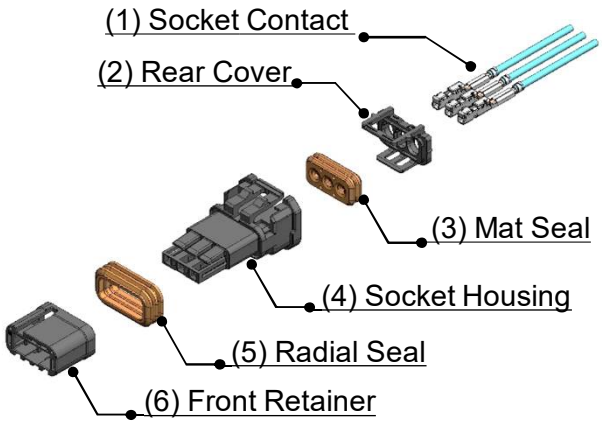





| Component | Material |
|---|---|
| (1) Pin Contact | Copper alloy / Tin plating |
| (2) Rear Cover | PBT-GF10 |
| (3) Mat Seal | Silicone Rubber |
| (4) Pin Housing | PBT-GF10 |
| (5) Front Retainer | PBT-GF10 |

## Socket Connector





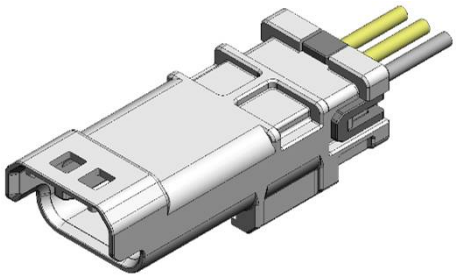

| Component | Material |
|---|---|
| (1) Socket Contact | Copper alloy / Tin plating |
| (2) Rear Cover | PBT-GF10 |
| (3) Mat Seal | Silicone Rubber |
| (4) Pin Housing | PBT-GF10 |
| (5) Radial Seal | Silicone Rubber |
| (6) Front Retainer | PBT-GF10 |

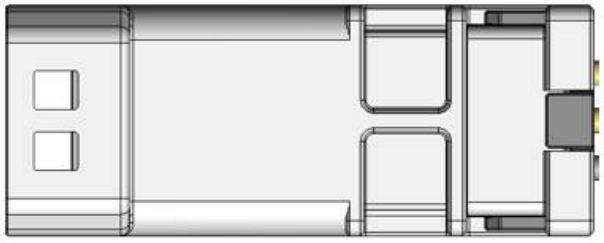
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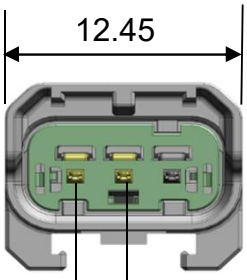
Dimensions (Unmated)

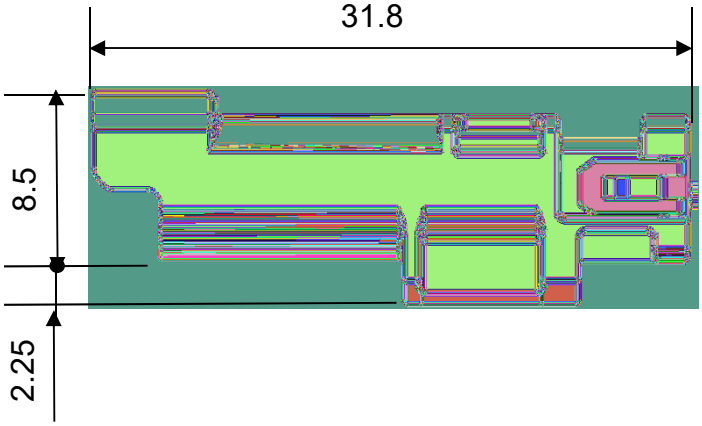
Basic Dimensions All units in mm

## In-line Pin Connector

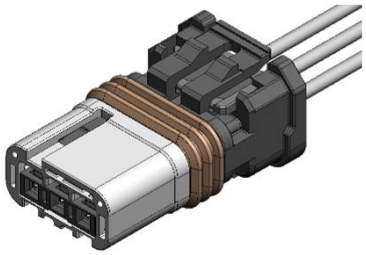


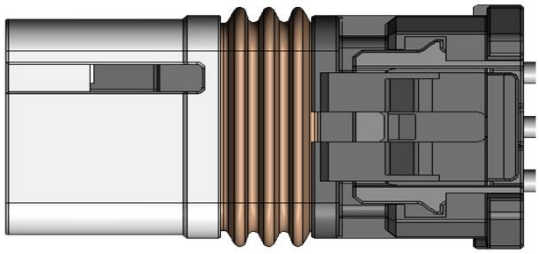


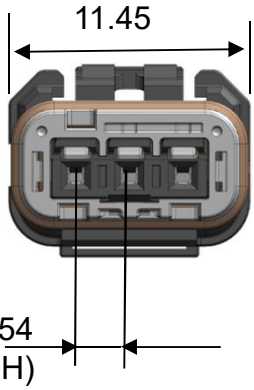


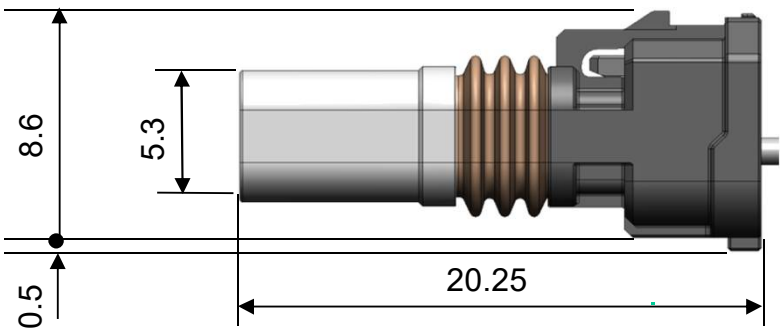




## Socket Connector



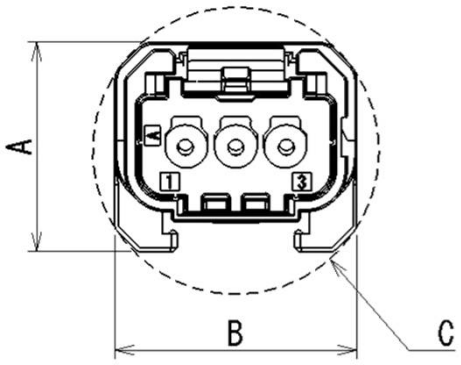


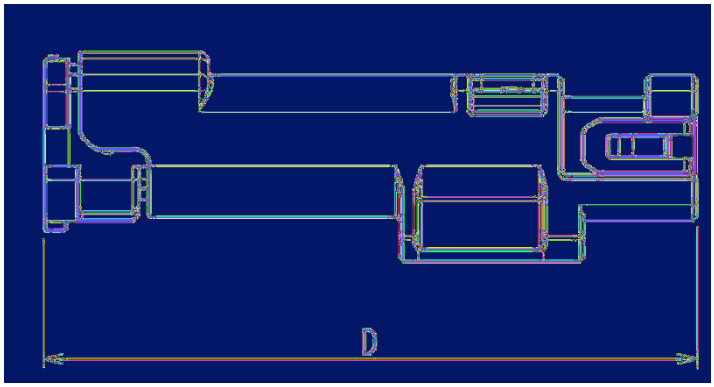



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Dimensions (When mated)




| Number of Contacts | Dimensions [mm] | | | |
|---|---|---|---|---|
| | A | B | C (Note) | D |
| 3 position | 10.75 | 12.45 | ⌀ 14.75 | 33.6 |

Note)
The above dimensions are the target value for a circumscribed circle size.
Please note that the connector through-hole size is ⌀ 16.75mm.

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Technical Documents

| | Part Number | Drawing Number |
|---|---|---|
| In-line Pin Connector | MX80B03PZ1A | SJ121228 |
| Socket Connector | MX80A03SZ1A | SJ121229 |
| Pin Contact | MX80P10K4F1 | SJ121374 |
| Socket Contact | MX80S08K4F1 | SJ121372 |

Note) We are planning to expand the MX80 Series product lineup by adding additional variations such as pin count variations. Please contact us for further information.

**Notice:**

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.
For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below.
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:
(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :
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(2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

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