Automotive Ethernet 100BASE-T1
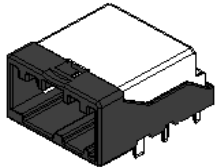# MX74 Series

CONNECTOR
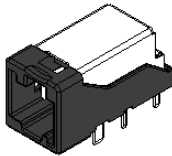MB-0380-1
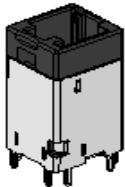Apr.2022

RoHS Compliant
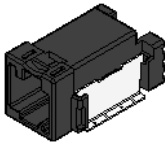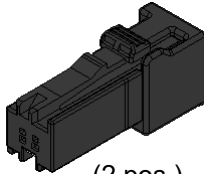
(Right angle 4 pos.)   (Right angle 2 pos.)

(2 pos.)
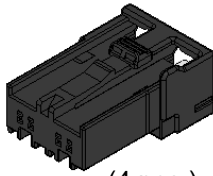
(Straight 2 pos.)   (Right angle with SMT
                          hold downs 2 pos.)

(4 pos.)

Pin Header   Socket

Overview

Automotive Ethernet has been adopted in the communication between ECUs (Electronic Control Unit) or other high speed devices. MX74 series complies with IEEE802.3bw 100BASE-T1, as the recent advancement of ADAS (Advanced Driver Assistance System) requires a high performance standard data communication technology.

Applications

Connection for Automotive Ethernet, etc.

Features

■ Compatible with IEEE 100BASE-T1 Automotive Ethernet differential transmission and **OPEN Alliance IEEE 100BASE-T1 Definitions for Communication Channel Version 1.0**.
■ UTP cable is applicable.
■ Supplied as individual connectors (Contact us for cable harness options).
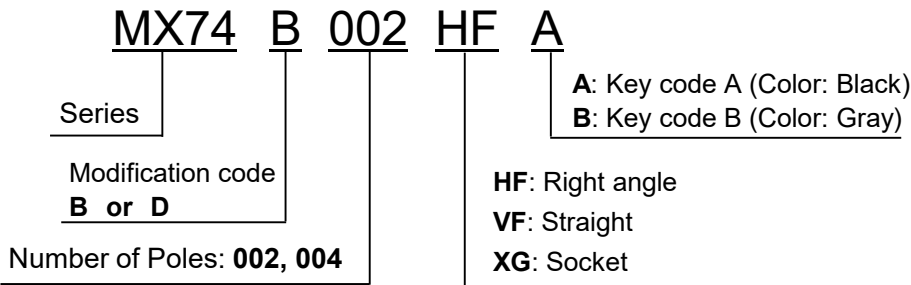■ 2 position products have 2 key codes with different colors.

General Specifications

Number of Contacts	2, 4 positions
Operating Temperature Range	-40 °C to +105 °C
Rated Current / Voltage	3A / 30V
Insulation Resistance	100MΩ Min.(Mated)
Dielectric Withstanding Voltage	AC 1,000Vr.m.s (For 1 minute)
Applicable PCB Thickness	1.2 to 1.6 mm
Mating / Unmating Force	66.7N Max. (without lock)
Applicable Cable	UTP (AWG#26, outer diameter ø3.2)

Ordering Information

MX74 B 002 HF A

Series

Modification code
B or D

Number of Poles: **002, 004**

A: Key code A (Color: Black)
B: Key code B (Color: Gray)
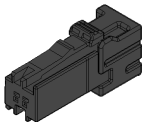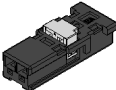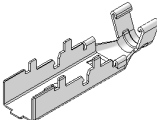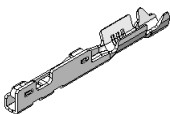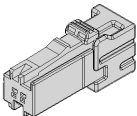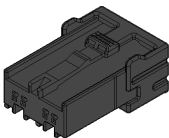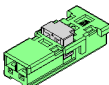
HF: Right angle
VF: Straight
XG: Socket
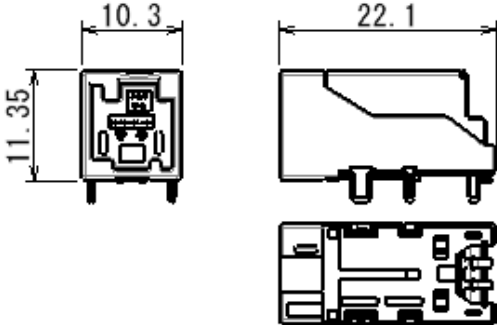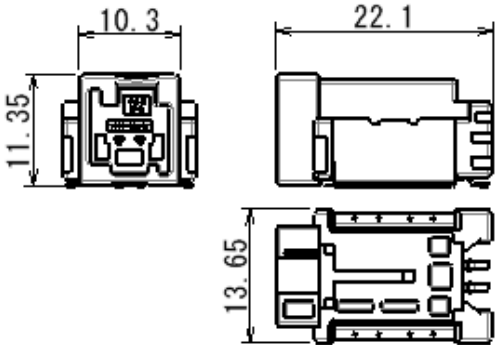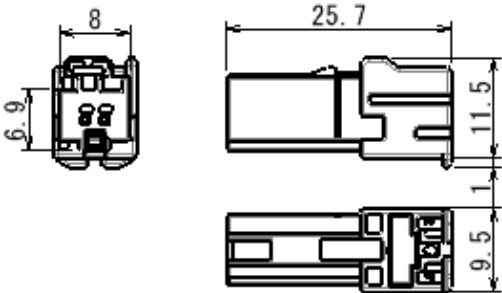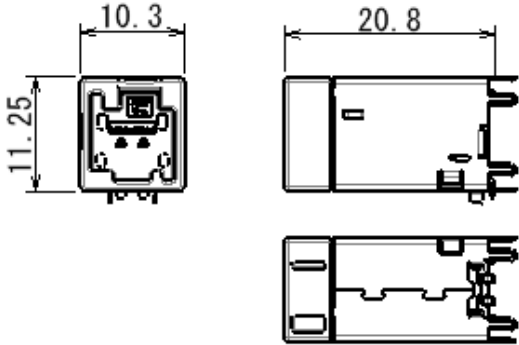
■Pin Header
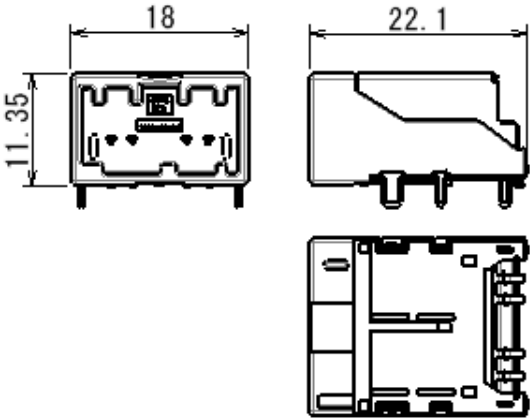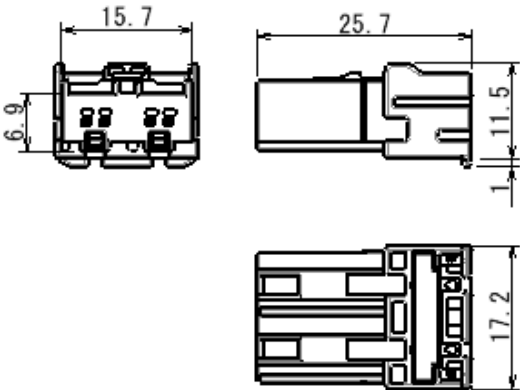
No.	Part Number	No. of Contacts	Key Code (Color)	Feature
1	MX74B002HFA	2	A（Black）	Right angle T/H hold down
2	MX74B002HFB	2	B（Gray）	Right angle T/H hold down
3	MX74D002HFA	2	A（Black）	Right angle SMT hold down
4	MX74D002HFB	2	B（Gray）	Right angle SMT hold down
5	MX74B002VFA	2	A（Black）	Straight T/H hold down
6	MX74B002VFB	2	B（Gray）	Straight T/H hold down
7	MX74B004HFA	4	A（Black）	Right angle T/H hold down

■Socket

No of Contacts / Key Code (Color of housing)	Component			
	Outer Housing Assembly	Inner Housing Assembly	Socket Shell	Socket Terminal
2 Positions / Key Code A (Black)	Part Number: MX74B002XGA			
2 Positions / Key Code B (Gray)	Part Number: MX74B002XGB	Part Number: MX74A002XNA	Part Number: MX74S41H9F1 (4,100pcs/1Reel)	Part Number: MX77S13K5F1 (13,000pcs/1Reel)
4 Positions / Key Code A (Black)	Part Number: MX74B004XGA	Product name : MX74A002XNB		

External Dimensions

Pin Header (2 positions)	Socket (2 positions)
MX74B002HFA / MX74B002HFB 	
MX74D002HFA / MX74D002HFB 	**MX74B002XGA / MX74B002XGB**
MX74B002VFA / MX74B002VFB 	

Pin Header (4 positions)	Socket (4 positions)
MX74B004HFA	MX74B004XGA

Mated Dimensions（Common for All Types）

Right Angle

Straight
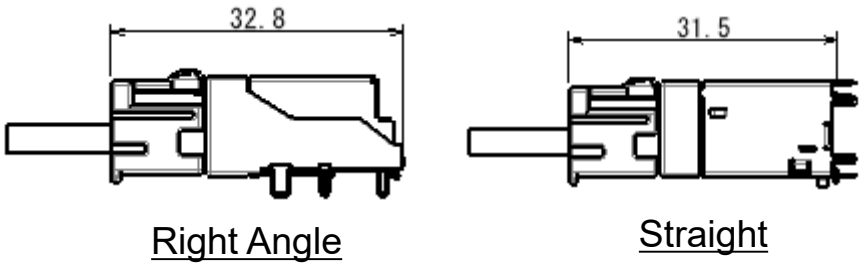
Technical Documents

Product Specification	JACS-11305
Pin Header Handling Manual	JAHL-11305-1
Socket Handling Manual	JAHL-11305-2

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 :
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

Japan Aviation Electronics Industry, Limited

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