

High Pin Count Waterproof Connector

MX60A Series

CONNECTOR

MB-0340-2

March 2019

RoHS Compliant

An automotive grade waterproof connector ideal for engine compartment applications has been developed.

Compatible with a high pin count of 177 positions, it features a lever structure and downsized contacts that reduces operation force.

Applicable Markets

High pin count waterproof applications in engine compartments such as automotive and commercial vehicle engine ECUs and PCUs

Features

IP69K equivalent (Actual results may vary depending on test condition.)

High pin count connector with a lever structure that reduces the force required to mate and unmate.

Socket terminal retention strength is 100N or more.

Both signal and power supply socket terminals are available to support a wide range of wire sizes.

Allows for easy harness assembly with a structure that attaches the cable cover after the wires are inserted in housing.

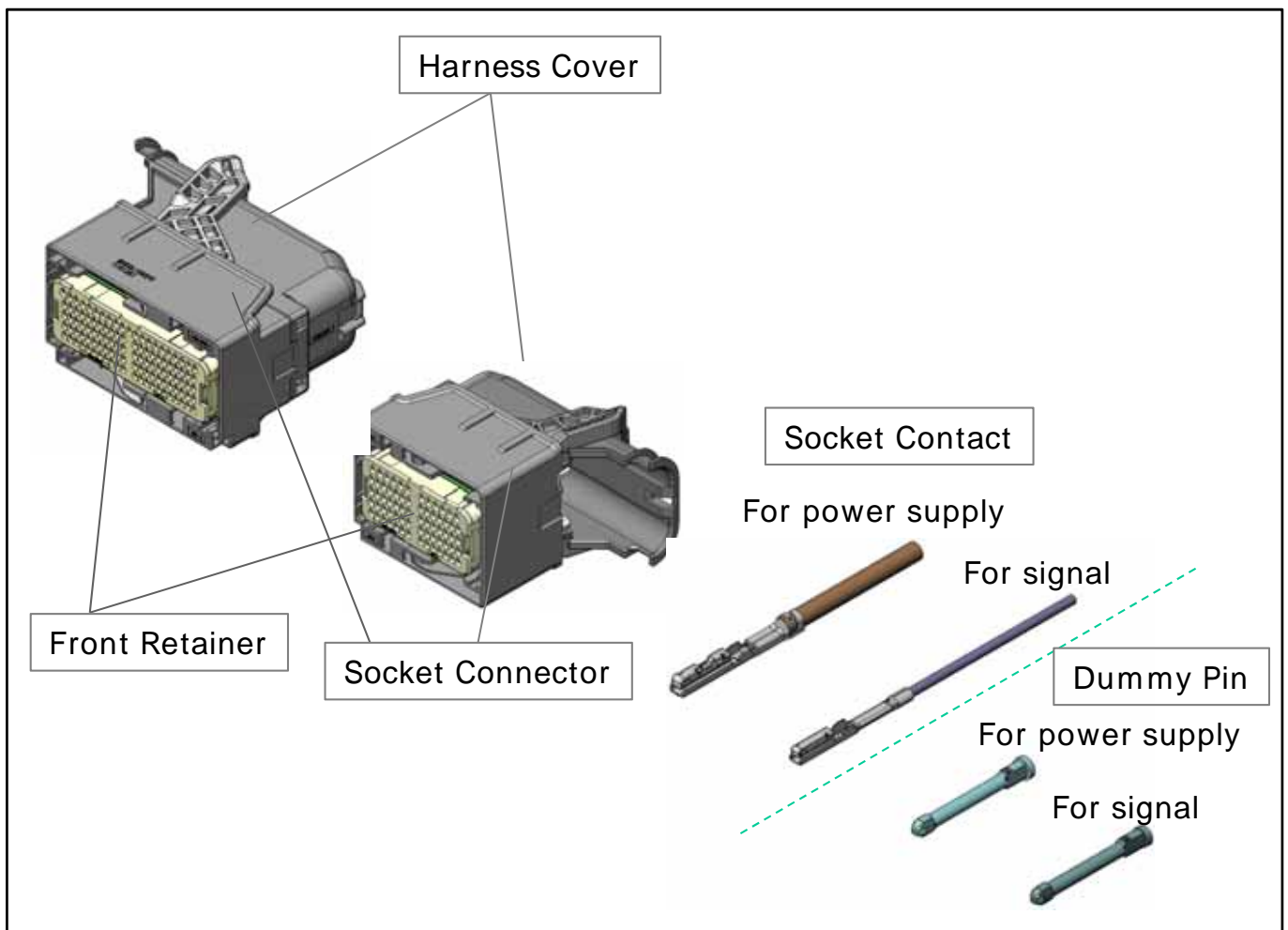
Pin terminal maintains enough durability while maintaining low height, with 1mm width, and 0.5mm thickness.

General Specifications

Number of Contacts	177 positions (2 blocks) (68 positions + 109 positions)
Contact Resistance	Initial: 5mΩ MAX Post test: 10mΩ MAX
Insulation Resistance	100MΩ MIN
Operating Temperature Range	Ambient temperature: -40°C~+105°C Ambient temperature + temperature rise due to conduction: 120°C MAX
Applicable Wire	Signal contacts: AVSS 0.3 sq to 0.5 sq Power contacts: AVSS 0.5 sq to 1.25 sq

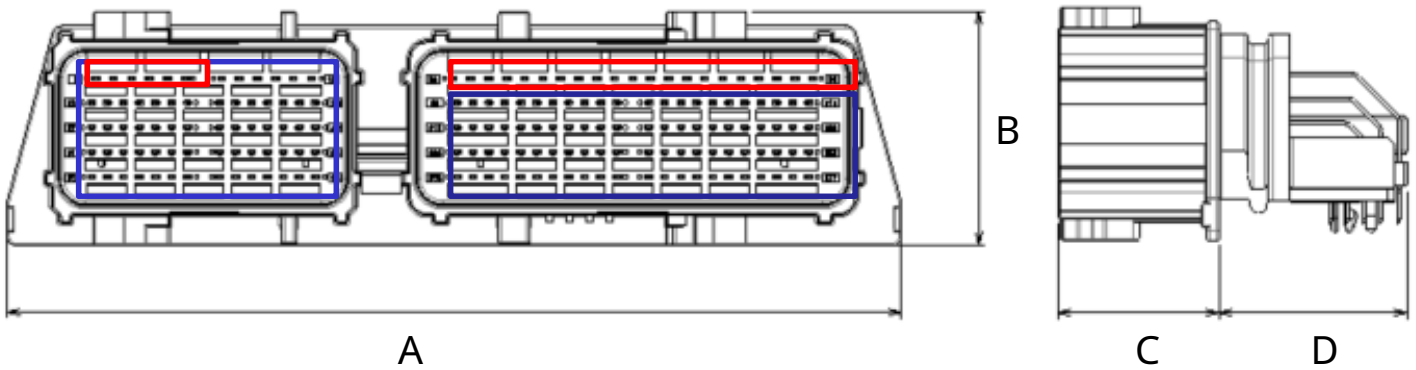
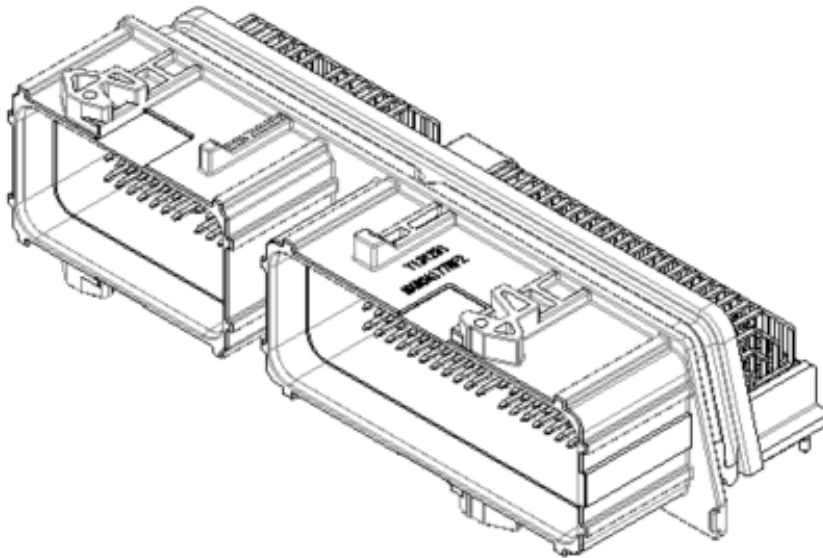
Part Number

	Part Number	Drawing Number	Specifications	Handling Instructions	Remarks	
Right Angle Pin Header	MX60A177NF2	SJ114473-1	JACS-11036-04	JAHL-11036-01 JAHL-11036-03 JAHL-11036-04		
Socket Connector	MX60A109SFK	SJ118391-1				
	MX60A068SFH	SJ118390-1				
Front Retainer	MX60A109XF2	SJ118470				
	MX60A068XF2	SJ118471				
Harness Cover	MX60A109XH1	SJ114475				
	MX60A068XH1	SJ114478				
Socket Contact	MX60S05K2FA	SJ115020				For power supply (0.75sq~1.25sq)
	MX60S05K3FA	SJ115021				For power supply (0.5sq~0.75sq)
	MX60S65H4F1	SJ113994				For signal (0.3sq~0.5sq)
Dummy Pin	MX60A000XD2	SJ114480				Fill plug for power supply
	MX60A000XD3	SJ114962				Fill plug for signal
Extraction Tool	ET-MX60-3	SJ711198-00				Terminal extraction tool for power supply
	ET-MX60-2	SJ711193-00				Terminal extraction tool for signal



Outer Dimensions

Pin Header



Unit: mm

Part Number	Dimension A	Dimension B	Dimension C	Dimension D
MX60A177NF2	134.2	35.1	24.2	28.2

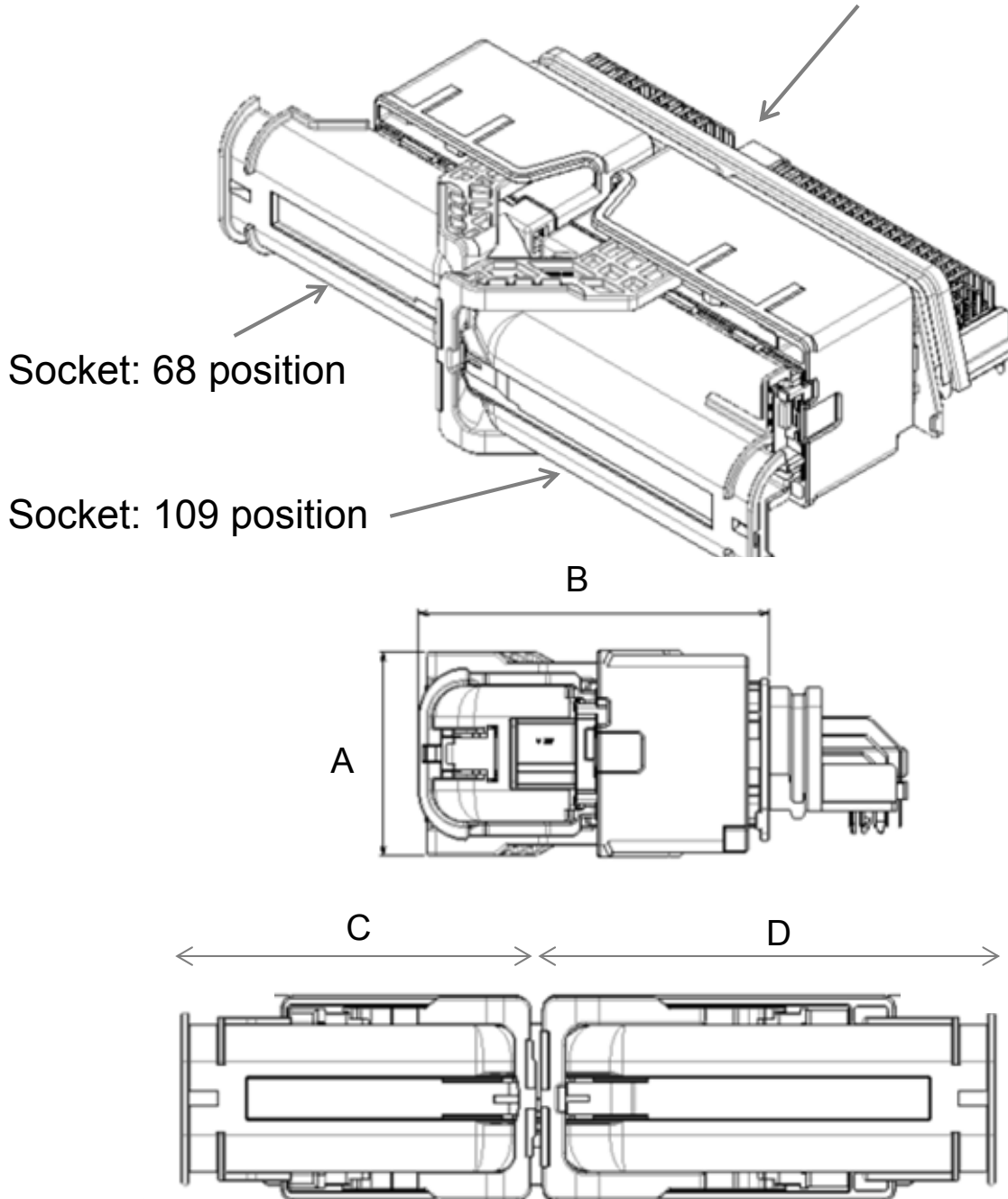
(For reference)

	68 position	109 position
For power (squared in red)	6 position	21 position
For signal (squared in blue)	62 position	88 position

Outer Dimensions

Mated Condition

Pin Header: MX60A177NF2



Unit: mm

	Dimension A	Dimension B	Dimension C	Dimension D
Dimensions when mated	41.5	71.8	50.6	72.2

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

* The specifications in this brochure are subject to change without notice. Please contact JAE for information.