

Selection Guides

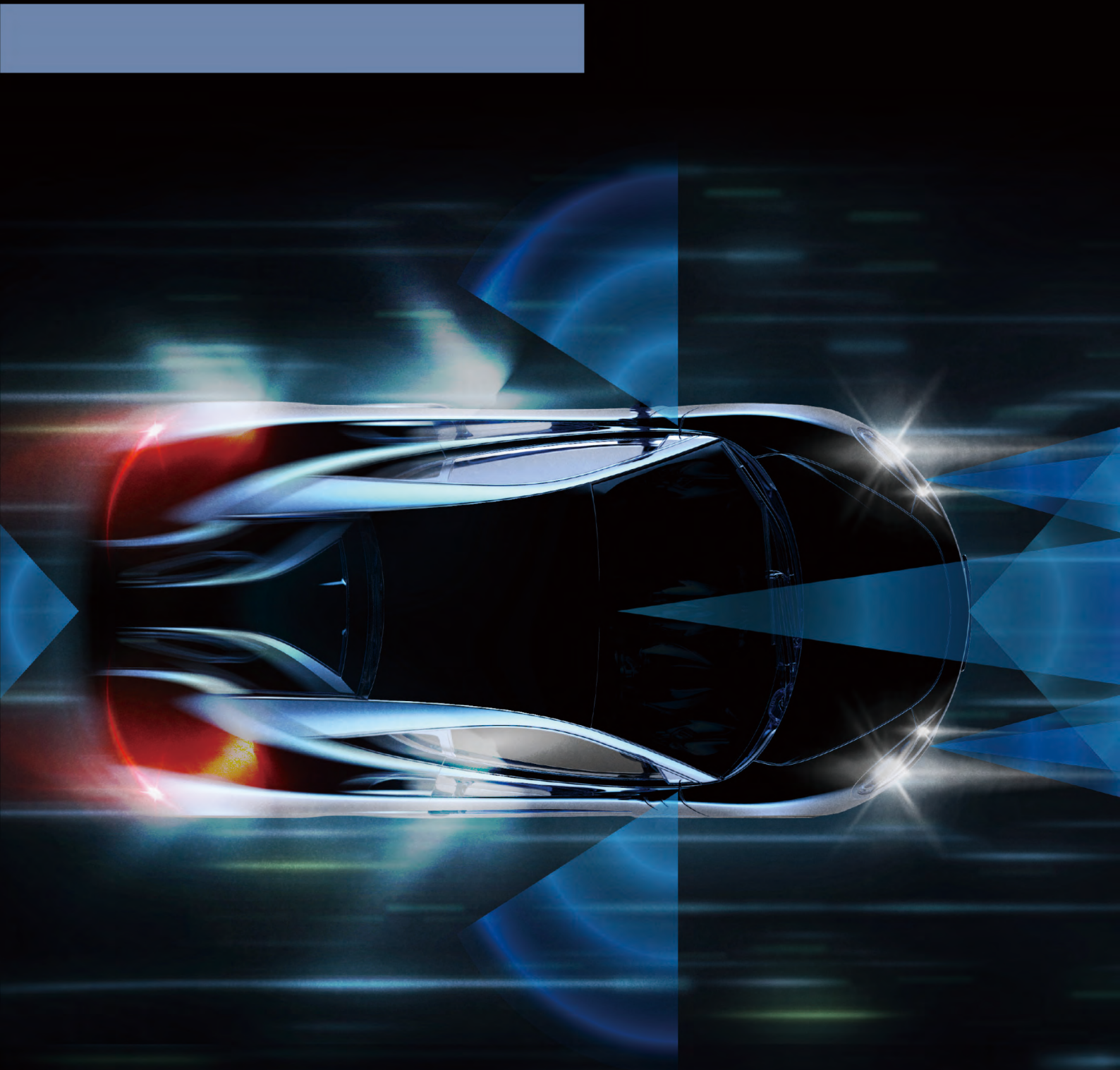


Since 1953

# Automotive Solutions

ADAS, Connected Car, Safety, E-mobility

Products and Applications lineup

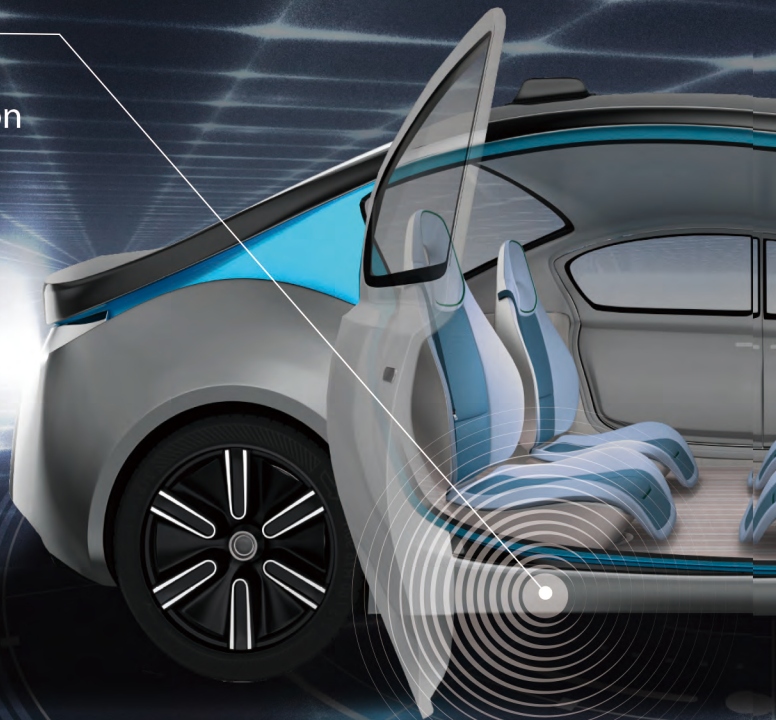




We provide solutions  
for next generation mobility  
systems such as ADAS,  
Connected Car and E-mobility

# E-mobility

Heat resistant connectors for reliable connection  
between the charger, battery pack and rest of  
electric powertrain.





# Connected Car

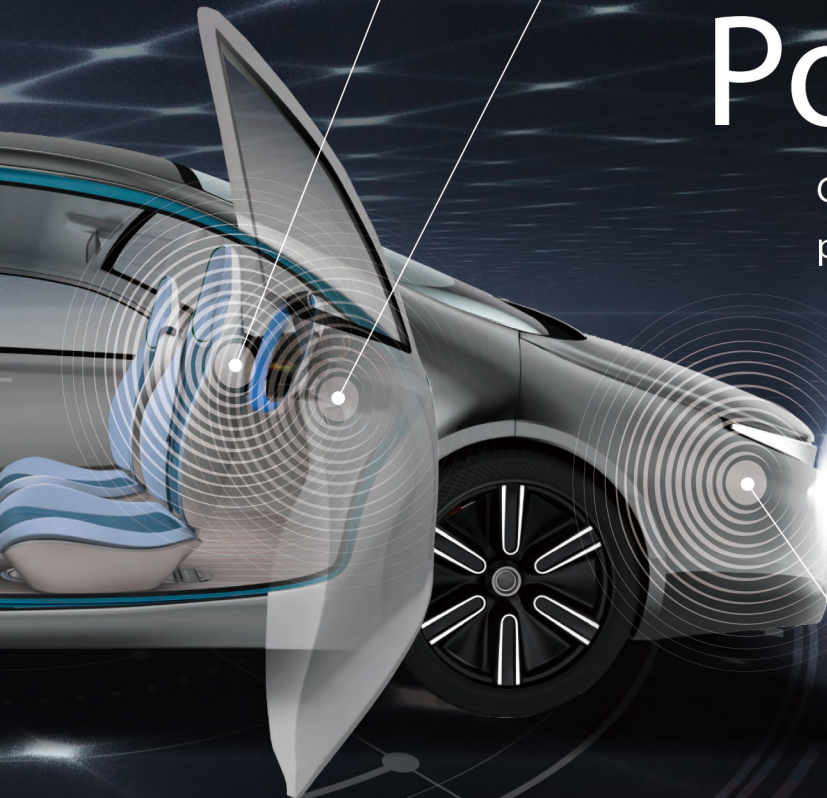
High quality automotive infotainment and communication connectors compatible with various car manufacturers' specific requirements

## Safety/ Powertrain

Connectors for SRS airbag/squib and powertrain system (engine ECU)

## ADAS Camera/Active Sensor

Wide range of connectors for automotive sensors including camera, millimeter wave radar, LiDAR, etc.







## Charging



### KW1/KW02C/KW03

- CHAdeMO Specifications Quick Charging Connector
- KW02C: Compliant with V2H guidelines
- Easy operation and high reliability
- Each types conform to UL certification and CE marking

#### # of Contacts:

KW1- Power: 2 pos., Signal: 7 pos.  
KW02C- Power: 2 pos., 12V Power: 1 pos., Signal: 6 pos.  
KW03- Power: 2 pos., 12V Power: 1 pos., Signal: 6 pos.



### KW07C/KW11

#### KW07C:

- Compliant with CHAdeMO fast charging standard
- Compatible with DC fast chargers with 150kW output (750V, 200A)

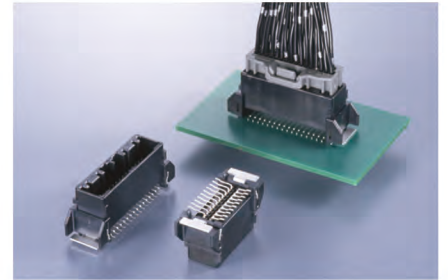
#### KW11:

- Compatible with the fast-charging standard CCS Type-1
- Supports a rated charging current of 150A and 200A.

#### # of Contacts:

KW07C: Power: 2 pos., Signal: 7 pos.  
KW11: Power: 2 pos., Protective Earth: 1 pos., Signal: 2 pos.

## BMS



### MX34

#### Compact High-density 025 Contact Connector

- Board-to-cable and in-line connection
- Many pin header options including SMT or through-hole and vertical or right angle.

#### # of Contacts: 1 row: 3, 5, 7 pos.

2 row: 8, 12, 16, 20, 24, 28, 32, 36, 40 pos.

Rated Current: 3A

Operating Temperature Range: -40 deg. C to +85 deg. C

## Powertrain



### MX47

#### Compact Waterproof Connector

- Board-to-cable
- Available in different keying

#### # of Contacts: 39 pos.

Rated Current: 3A

Operating Temperature: -40 deg. C to +125 deg. C



### MX23A

#### Compact Waterproof Connector

- Board-to-cable
- Low profile standard and reverse mount header available

#### # of Contacts: 12, 18, 26, 34, 36, 40 pos.

Rated Current: 3A

Operating Temperature: -40 deg. C to +125 deg. C



### MX84B

#### 025 Contact Connector with Low Flammability Material

- Insulator material with UL94 V-0 flammability rating
- The same form and dimensions as the MX34 Series

#### # of Contacts: 7, 12, 16, 20, 24, 28, 32, 36, 40 pos.

Rated Current: 3A

Operating Temperature: -40 deg. C to +85 deg. C



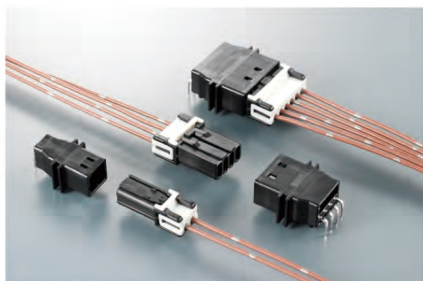
### MX60A

#### High Pin Count Waterproof Connector

- Lever actuated for reduced mating force

#### # of Contacts: 177 pos. ( 2 blocks )

Operating Temperature: -40 deg. C to +105 deg. C



### MX44

#### Compact Waterproof Connector

- Board-to-cable
- Compatible with extreme vibration

#### # of Contacts: 2, 4, 6 pos.

Rated Current: 3A

Operating Temperature: -40 deg. C to +125 deg. C



### MX77A

#### Ultra Low Profile Connector

- Board-to-cable
- SMT right angle

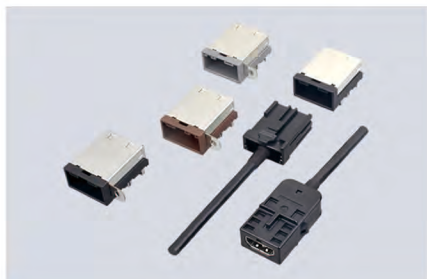
#### # of Contacts: 4, 8, 12, 16, 20, 24, 32, 40 pos.

Operating Temperature: -40 deg. C to +85 deg. C

# Connected Car



## Infotainment User Interface



### MX50/53/53B

#### Automotive HDMI Type-E Connector

MX50: HDMI Type-E Board-to-Cable  
MX53/53B: HDMI Type-A relay receptacle  
· Supplied as a harness product to ensure transmission performance reliability.

# of Contacts: 19 pos.  
Rated Current: 0.5A  
Operating Temperature: -40 deg. C to +85 deg. C



### MX45D/45M

#### USB 2.0 Standard Compatible Connector

· USB 2.0 Type-A Harness type

# of Contacts: 4 pos.  
Operating Temperature: -40 deg. C to +85 deg. C

## Automotive Spec Tested Connectors (Not-IATF compliant)



### DX07

#### USB Type-C® Connector

· 10Gbps SuperSpeed communication  
· Reversible plug makes it possible to insert both ways.  
\* Please contact us for test specifications.

# of Contacts: Receptacle: 24 pos., Plug: 22 pos.  
Operating Temperature: -40 deg. C to +125 deg. C

## In-Vehicle Infotainment

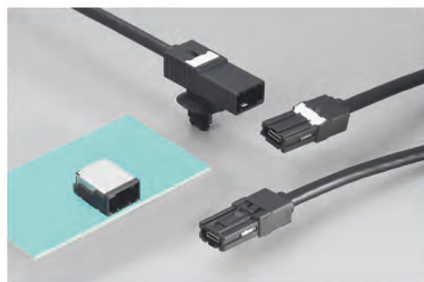


### MX49/49B/49CB

#### Automotive USB 2.0 Connector

· 2.0mm pitch, 2 rows, 4 position (2 signal lines, power, ground)  
· PCB header is available in DIP or SMT mounting

# of Contacts: 4 pos.  
Operating Temperature: -40 deg. C to +85 deg. C



### MA07

#### Automotive USB 3.2 / DP1.4 Connector

· Tested to USCAR2 specifications.  
USB 3.2 Gen 2: Maximum bandwidth 20 Gbps  
(10 Gbps x2 lanes)  
DisplayPort 1.4: Maximum bandwidth 32.4 Gbps  
(8.1 Gbps x4 lanes)

# of Contacts: Receptacle: 24 pos., Plug: 22 pos.  
Operating Temperature: -40 deg. C to +105 deg. C



### WP26DK

#### Board-to-board (FPC) Connector

· Robust Stacking Type  
· 0.35mm pitch, 2 rows, 0.6mm stacking height, 1.9mm width  
\* Please contact us for test specifications.

# of Contacts: 10, 16, 24, 30, 34, 40, 48, 50, 60 pos. (+2 power)  
Operating Temperature: -40 deg. C to +125 deg. C

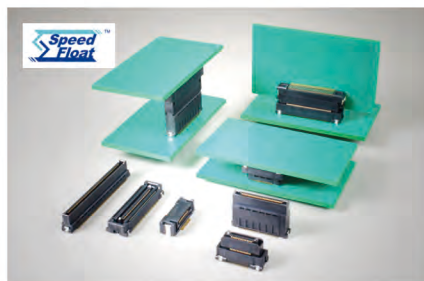


### MX68

#### High-speed Connectors for Infotainment System

· MX68A: Supports vehicle-mounted LVDS differential signals  
· MX68B: Support USB 2.0 signals

# of Contacts: 2, 4, 8 pos.  
Rated Current: 2.2A (power / GND line)  
Operating Temperature: -40 deg. C to +85 deg. C

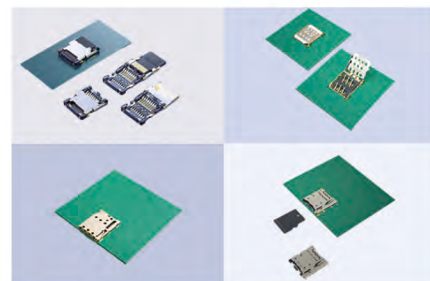


### MA01

#### High-speed Floating Board-to-board Connector

· Two-point contact structure ensures high contact reliability  
· 8 Gbps+ high-speed transmission  
(10GBASE-KR and PCIe Gen3 equivalent)  
· Floating tolerance: ±0.5 mm in X & Y axis

# of Contacts: 30, 40, 60, 80, 90, 100, 120, 140 pos.  
Rated Current: 0.5 A  
Operating Temperature: -40 deg. C to +125 deg. C



### ST1/SF15/ST12/SF72

ST1/ST12: microSD™ Card Connector  
SF15: Micro SIM Card Connector  
SF72: Nano SIM Card Connector

· ST1/SF15 : Hinge type · ST12/SF72 : Push-push type  
\* Please contact us for test specifications

# of Contacts: ST1: 8 pos. ST12: 10pos. SF15/SF72: 6 pos.  
Operating Temperature: -40 deg. C to +105 deg. C





## Camera line



### MX66

#### Waterproof FAKRA Coaxial Connector

- For frequency band up to 3GHz. (USCAR17)
- Superior waterproof performance. (USCAR2)

# of Contacts: 1 pos.

Operating Temperature: -40 deg. C to +105 deg. C



### MX49A

#### Automotive LVDS High-speed Transmission Connectors

- Excellent EMI shielding

# of Contacts: 4 pos.

Operating Temperature: -40 deg. C to +85 deg. C



### MX49C

#### Automotive Waterproof In-line Connector

- Compatible with automotive LVDS digital image signal transmission.

# of Contacts: 4 pos.

Operating Temperature: -40 deg. C to +100 deg. C



### MX79A

#### LVDS Transmission Compatible Connector

- Compact right angle board-to-cable
- 4 key codes

# of Contacts: 4 pos. (2 pos. for differential signal and 2 pos. for power supply)

Applicable Cable: STQ (AWG#26, cable outer diameter Ø 4 mm)

Operating Temperature: -40 deg. C to +85 deg. C



### MX65

#### HSD Compatible Connectors

- Compatible with LVDS and USB 2.0 signals
- Compatible with European de-facto standard Shielded Twisted Quad (STQ) cables

# of Contacts: 4pos. (STQ1), 8pos. (STQ2), 6 pos. (STQ1 + two discrete)

Operating Temperature: -40 deg. C to +105 deg. C

## Active Sensor



### MX19

#### 040 Contact Compact Waterproof In-line Connector

- Mechanical lock system enabling complete mating with a click

# of Contacts: 2, 4 pos.

Rated Current: 5A

Operating Temperature: -40 deg. C to +85 deg. C



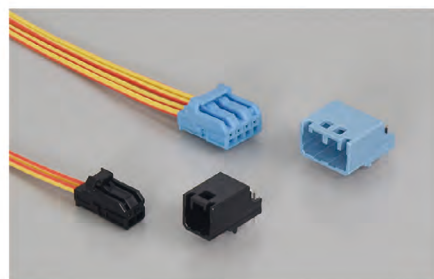
### MX80

#### 025 Contact Compact Waterproof In-line Connector

- IPX7 ingress protection rated (4 positions also available in IPX9K)
- Compatible with 0.13 to 1.0mm<sup>2</sup> wire

# of Contacts: 2, 3, 4 and 6 pos. (6 pos. is socket only)

Operating Temperature: -40 deg. C to +125 deg. C  
(This range includes temperature increase from current load.)



### MX81

#### 025 Contact Unsealed Compact Automotive Connector

- Socket contacts are the same as those of sealed MX80 Series
- Pin header is through-hole reflow compatible.

# of Contacts: 2, 4 pos.

Operating Temperature: -40 deg. C to +125 deg. C

(This range includes temperature rise from current load)



## Safety



### MX72A/72B

Self Rejecting Squib Connector

- Compatible with the AK2 standard specification
- 3 key codes
- The contact part has 3 contact points with high reliability
- Angle and straight type

# of Contacts: 2 pos.

Operating Temperature: -40 deg. C to +100 deg. C



### MX67A

Compact Multipole Connector for SRS ECU

- Press-fit type terminals do not require soldering.
- The connector is fixed to the unit case flange area using press-fit method.

# of Contacts: 100 pos. (2 blocks) + 4 pos. for mating detection

Operating Temperature: -40 deg. C to +120 deg. C



### MX57A/57B/57C

Compact Connector for SRS ECU

- 2.2mm transverse pitch, staggered alignment, board-to-cable type.

# of Contacts: MX57A: 30 pos.

MX57B: 48 pos.

MX57C: 79pos.

Operating Temperature: -40 deg. C to +80 deg. C



### MX37

In-line Connector for Air bags  
(Mechanical complete mating)

- Malfunction due to static electricity will be prevented by the short contacts built-in the pin connector.

# of Contacts: 4 pos.

Operating Temperature: -40 deg. C to +105 deg. C



### MX36

Waterproof In-line Connector for Air bags  
(Mechanical complete mating)

- Type with short-circuit contacts, which prevents erroneous function due to static electricity

# of Contacts: 2, 4 pos.

Operating Temperature: -40 deg. C to +105 deg. C

## Corporate Data



### Outline of company

Company Name :

Japan Aviation Electronics  
Industry, Limited

Establishment of Business :

August 20, 1953

Head Office :

21-1, Dogenzaka 1-chome, Shibuya-ku,  
Tokyo 150-0043, Japan

Capital :

¥10.69 billion

Stock Exchange Listing :

Tokyo Stock Exchange, Prime Market

Activities :

Manufacturing and sales of connectors,  
user interface solutions, and aerospace and  
related electronics

### List of ISO Quality Certifications

Connector Div.:

ISO 9001 : 2015 JQA-QMA11894

IATF 16949 : 2016 JQA-AU0386

User Interface Solutions Div.:

ISO 9001 : 2015 JQA-0413

Aerospace Div.:

ISO 9001 : 2015 JQA-0335

JIS Q 9100 : 2016 JQA-AS0005

Corporate  
Website



Connector  
Website





## Before placing an order

① The values specified in this catalogue are only for reference. The products and 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 catalogue 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:

(1) 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.

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