

# Industrial Connectors Selection Guides

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**Japan Aviation Electronics  
Industry, Limited**

# External Interface Connectors

## One-touch Bayonet locking Waterproof Connector JL05 Series



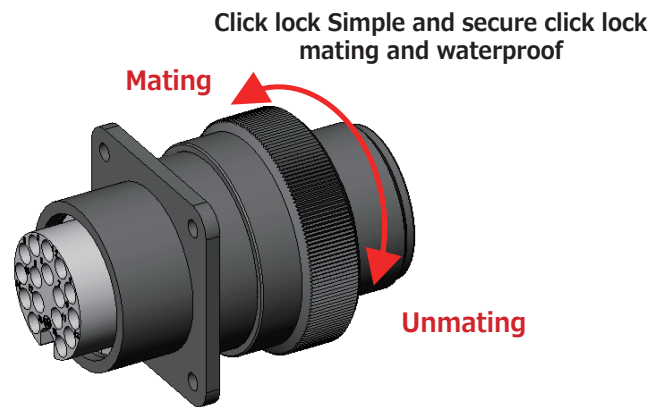
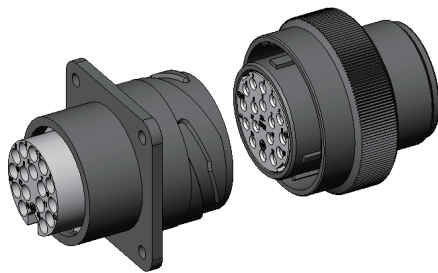
### General Specifications

|                                 |  |        |        |
|---------------------------------|--|--------|--------|
| Number of Contacts              | 4, 5, 7, 8, 9, 10, 17, 19, 24, 30, 36, 37, 52, 73  |        |        |
| Rated Current (by contact size) | #20 Cont. : 5A max. , #16 Cont. : 13A max. #12 Cont. : 23A max. , #8 Cont. : 46A max. (Assembled In Insulator) |        |        |
| Rated Voltage                   | Classification code  | AC     | DC     |
|                                 | INST   | 200V   | 250V   |
|                                 | A  | 500V   | 700V   |
|                                 | D  | 900V   | 1,250V |
| Dielectric Withstanding Voltage | INST   | 1,000V |        |
|                                 | A  | 2,000V |        |
|                                 | D  | 2,800V |        |
| Insulation Resistance           | 5,000MΩ max.(Waterproof type when mated)<br>1,000MΩ max.(Individually waterproofed type)                       |        |        |
| Operating Temperature           | -55°C ~ +125°C   |        |        |
| Applicable Wire                 | #20 Cont. : AWG 18 ~ 26<br>#16 Cont. : AWG 14 ~ 24<br>#12 Cont. : AWG 12 ~ 16<br>#8 Cont. : AWG 8 ~ 12         |        |        |

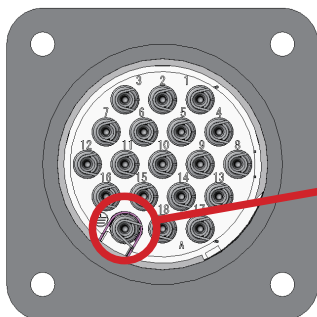
### Features

- One-touch bayonet lock mating type
- Five optional keyed mating orientation to prevent mis-mating in multiple connector use
- Sequential connection ensures reliable link with protection circuit.

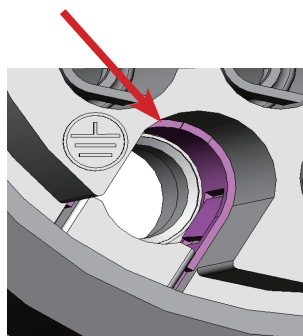
#### One-touch lock mating



#### Protective Earth connection



#### Ground lug



Grounding lug to connect contact to outer metal shell

# External Interface Connectors

## One-touch Bayonet locking Waterproof Connector JL05 Series

### ■ Contact arrangement

|  |   |               |               |               |                    |                             |
|--|---|---------------|---------------|---------------|--------------------|-----------------------------|
| Arrangement  | 22-22   | 18-11         | 20-15         | 24-10         | 22-23              | 24-11                       |
| Contact arrangement<br>(View of pin insert from mating side) |   |               |               |               |                    |                             |
| Size x Number of Contacts                                    | #8 x 4 pos.                                   | #12 x 5 pos.  | #12 x 7 pos.  | #8 x 7 pos.   | #12 x 8 pos.       | #8 x 3 pos.<br>#12 x 6 pos. |
| Rated Current  | 46A   | 23A           | 23A           | 46A           | 23A                | 46A (#8)<br>23A (#12)       |
| Rated Voltage Dielectric Withstanding Voltage (Note1)        | A   | A             | A             | A             | D (H)<br>A (Other) | A                           |
| Arrangement  | 18-1  | 20-29         | 18-19A        | 22-14         | 24-28              | 20-30A                      |
| Contact arrangement<br>(View of pin insert from mating side) |   |               |               |               |                    |                             |
| Size x Number of Contacts                                    | #16 x 10 pos.                                 | #16 x 17 pos. | #20 x 19 pos. | #16 x 19 pos. | #16 x 24 pos.      | #20 x 30 pos.               |
| Rated Current  | 13A   | 13A           | 5A            | 13A           | 13A                | 5A                          |
| Rated Voltage Dielectric Withstanding Voltage (Note1)        | A (B,C,F,G)<br>INST (Other)                   | A             | INST          | A             | INST               | INST                        |
| Arrangement  | 28-36B  | 28-21         | 24-52A        | 28-73A        |                    |                             |
| Contact arrangement<br>(View of pin insert from mating side) |   |               |               |               |                    |                             |
| Size x Number of Contacts                                    | #12 x 4 pos.<br>#16 x 4 pos.<br>#20 x 28 pos. | #16 x 37 pos. | #20 x 52 pos. | #20 x 73 pos. |                    |                             |
| Rated Current  | 23A (#12)<br>13A (#16)<br>5A (#20)            | 13A           | 5A            | 5A            |                    |                             |
| Rated Voltage Dielectric Withstanding Voltage (Note1)        | (Note2)                                       | A             | INST          | INST          |                    |                             |

(Note1) The rated voltage and withstand voltage are indicated by classification symbols.

Please refer to the "General Specifications" column on the previous page for details.

(Note2) The table below shows the rated voltage and withstand voltage of the contact arrangement 28-36B (36 positons).

|                                 |                |        |      |
|---------------------------------|----------------|--------|------|
|                                 | Terminal No.   | AC     | DC   |
| Rated Voltage                   | 1 ~ 28         | 200V   | 250V |
|                                 | 29 ~ 35,Ground | 500V   | 700V |
| Dielectric Withstanding Voltage | 1 ~ 28         | 1,500V |      |
|                                 | 29 ~ 35,Ground | 2,000V |      |

## 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:**

- (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.