

# Smart Textile Connector RK01 Series

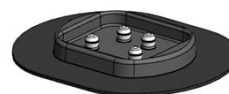
CONNECTOR

MB-0355-2

April 2020

**RoHS Compliant**

Transmitter

Receptacle Terminal  
(General parts)

Textile side connector

The RK01 Series is a connector ideal for smart textile applications. It is a user-friendly connector which adopts a snap-button type structure that is widely used in apparel products. It is also compatible with domestic washing specification required for clothes.

**Applications**

For products in various markets using smart textiles, such as smart clothing

**Features**

- Washable in a home washing machine
- Proprietary contact structure which allows for multiple circuits to be attached and detached in one action
- Highly versatile supporting a wide variety of conductive materials and pin counts
- Waterproof when the transmitter is mated

**General Specifications**

|                             |  |
|-----------------------------|--|
| Operating Temperature Range | -20°C to +50°C   |
| Number of Contacts          | 2 positions or more  |
| Contact Resistance          | Initial: 1Ω max., After test: 5Ω max.                              |
| Durability                  | 500 times  |
| Wash Test                   | JIS L 1930 (C4G)<br>(Japanese washing test procedures for textile) |

### Materials and Finishes

| General Parts      | Material | Customized Parts | Material   |
|--------------------|----------|------------------|------------|
| Plug Contact       | Alloy    | Bottom Insulator | PC         |
| Receptacle Contact | Alloy    | Top Insulator    | PC, others |

### Ordering Information

**RK01 \* 001 \* Z 1 R \*\*\*\***

Series

P: Plug  
S: Receptacle

Number of Contacts

R: Reeled pieces / reel  
None: Individual Product

Modification Code

Connection (Board attachment type)

### Components

Transmitter side: Receptacle contact is mounted to the surface of the printed circuit board inside transmitter.

Textile side: General parts and customized parts are sold as a kit to comply with various designs that use different materials and number of contacts.

## Example of Connector Development

### Manufactured and supplied by JAE

### Prepared by JAE or customer

#### Tab Sheet

Reduces stress applied to the textile wiring during attachment and detachment

Transmitter



**Receptacle Contact**  
(General parts)



**Plug Contact**  
(General parts)

Textile side connector



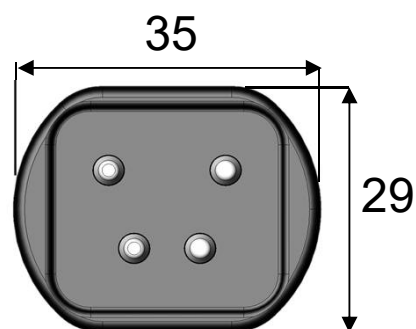
**Top Insulator**  
(Customized part)



**Bottom Insulator**  
(Customized part)

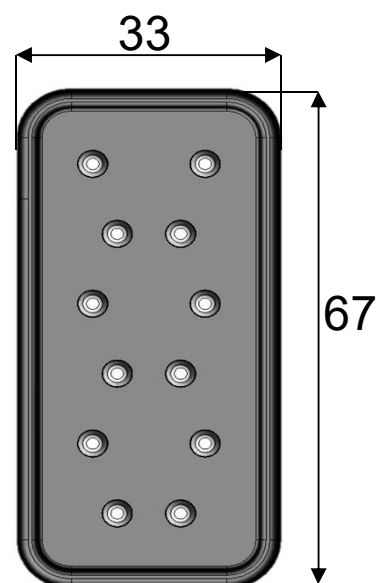
## Outer Dimensions

Design example: 4 positions



Textile side connector

Design example: 12 positions



Textile side connector

## Drawing Number

| Part Number                            | Drawing  | Specification |
|--|----------|---------------|
| RK01P001YZ1<br>Plug Contact            | SJ122311 | JACS-30414    |
| RK01S001WZ1R1300<br>Receptacle Contact | SJ122314 |               |

**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.

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