

0.3mm Pitch, Stacking Type Board-to-board (FPC) Connector  
With Power Supply Terminals

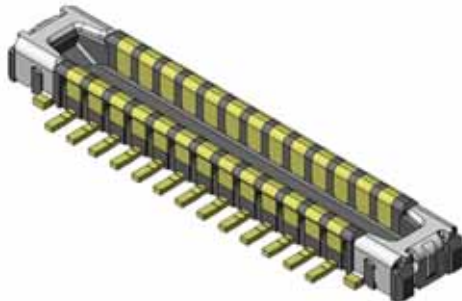
CONNECTOR

MB-0364-2

Oct.2022

## WP56DK Series

**RoHS Compliant**



Plug



Receptacle

In high-performance compact wearable devices such as smartwatches, the PCB found inside of the device is much smaller than those inside of smartphones, which requires components used in these devices to also be much smaller.

While the overall device size is decreasing, the functions and features found in these devices continue to evolve and grow, further emphasizing the need for higher density components such as connectors.

One of the key areas where connector density can be improved is by reducing the contact pitch. This allows more contacts to be housed in a smaller area, which will leave more board space for other components and modules.

This product is the first JAE connector has a reduced contact pitch of 0.3mm compared to the standard 0.35mm pitch widely used in today's electronics.

This product adopts our standard multifunction hold-down structure which allows them to be used as a power supply terminal to reduce total pin count.

The hold-downs also incorporate protective metal fittings which provide armoring on the mating and internal surfaces of the insulator for ultimate strength and reliability. Due to this structure, the connector has improved workability during the alignment and mating process.

### Applicable Equipment

Smartwatches, smartphones, tablet PCs, laptops, digital cameras, AR / VR headsets and other small mobile devices

### Features

- 0.3mm pitch, 1.6m width, 2 rows, 0.6mm mated height
- 2 power supply terminals supporting 3.0A each (Also serving as a hold-down)
- Hold-down structure adds protection to the top mating surface to prevent damage to the insulator (Armored)
- Improved workability for assembler with clear click feeling when fully mated
- 2 point contact structure for reliable connection
- Nickel barrier on contact prevents solder wicking
- Supports MIPI, USB3.2 Gen2, PCIe Gen3 transmission

General Specifications
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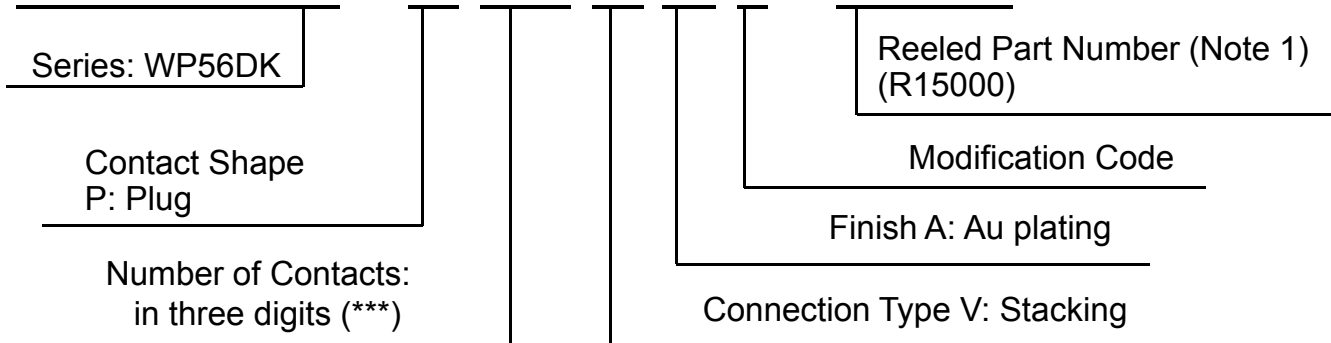
Number of Contacts	26 positions (+2 power)
Pitch	0.3mm, 2 rows
Contact Resistance	Signal Terminal: 70mΩ max. (initial) Power Supply Terminal: 20mΩ max. (initial)
Dielectric Withstanding Voltage	AC250Vr.m.s for 1 minute
Insulation Resistance	100MΩ min. (initial)
Durability	30 mating cycles
Operating Temperature Range	-40°C to +85°C
Rated Current	Signal Terminal: AC, DC 0.3A per pos. Power Supply Terminal: AC, DC 3.0A per pos.
Rated Voltage	AC, DC 50 V
Total Insertion Force	1.5N x (n+4) max. (n: No. of pos.)
Total Extraction Force	0.15N x (n) min. (n: No. of pos.)

Materials and Finishes
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Components	Materials	Finishes
Contact	Copper alloy	Au plating (Contact area) Au plating (Mounting area)
Insulator	Heat-resistant plastic	
Hold-down	Copper alloy	Au plating (Contact area) Au plating (Mounting area)

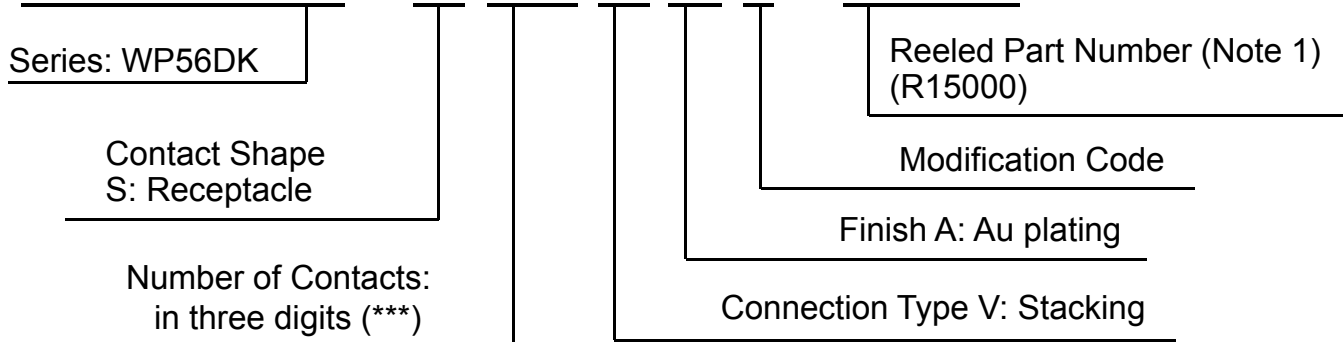
Ordering Information (Plug)

**WP56DK - P \*\*\* V A \* - R\*\*\*\***



Ordering Information (Receptacle)

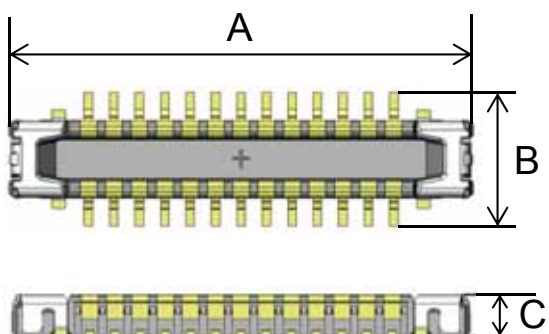
**WP56DK - S \*\*\* V A \* - R\*\*\*\***



Note 1) An embossed tape reel contains 15,000 pieces.  
Please contact us for details on embossed tape specifications.

Outer Dimensions (Plug)

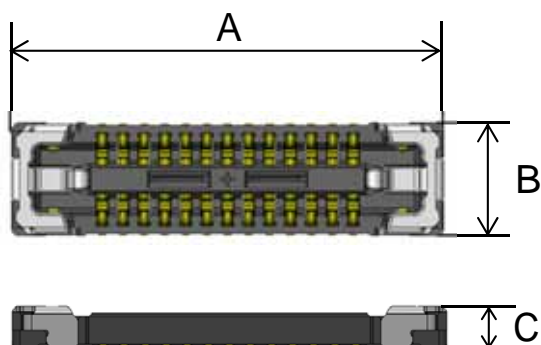
Unit: mm



Dimensions	A	B	C
Number of Contact			
26	5.47	1.6	0.49

## Outer Dimensions (Receptacle)

Unit: mm



Dimensions	A	B	C
Number of Contact			
26	6.2	1.6	0.6

## Product Drawings and Specifications

Part Number	Drawing Number	Specifications	Handling Instructions
WP56DK-P*****-R15000 (Plug side)	SJ123377 (Individual Product)	JACS-11340	JAHL-11340
	SJ123378 (Reeled Product)		
WP56DK-S*****-R15000 (Receptacle side)	SJ123379 (Individual Product)		
	SJ123380 (Reeled Product)		

**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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