

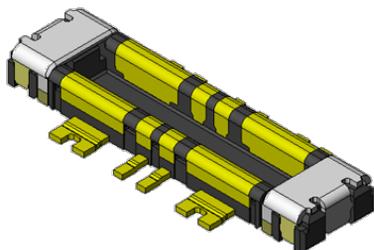
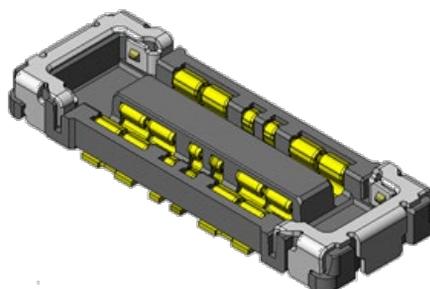


WP10 Series

CONNECTOR

MB-0303-4

0.4mm Pitch Stacking Type Board-to-board (FPC) Connector Dec.2021

RoHS CompliantPlugReceptacle

The WP10 Series is a stacking type board-to-board(FPC) connector which is low-profile and saves space. It is ideal for high-current connection areas like battery connections in compact hand-held devices such as smartphones, wearable device and tablet PCs.

This product features a high-current compatible power terminal and allows for power distribution of 10A. Furthermore, there is a variant that can support up to 12A by using a combination of the power supply terminal plus a modified hold-down. The hold-down structure which has a lock area prevents damage to the connector during mating, improving operability for customers, and also has a high extraction force to prevent disengagement of the product.

Applicable Market

Mobile phones, smartphones, wearable devices, tablet PCs, notebook PCs, and other small portable devices

Features

- 0.40mm pitch, 2 rows, 0.7mm stacking height, 2.2mm width
- Power terminals compatible with 10A power supply(5.0A/ pin x 4 pin).
12A variant available with modified hold-down for additional power.
- 2-point structure design for both power and signal terminals to resist twisting stress.
- Armored durable hold-down structure with lock area that enhances retention force and adds protection to the mating surface to prevent damage to the plastic insulator.
- Improved workability for customers with a clear click feeling during mating.
- Contact structure ensures high wear-resistance and high conduct reliability.
- Pb-free. Nickel barrier on contact.

General Specifications

Number of Contacts	2, 4,(signal), 4 positions (power)), 2 positions (Hold-down)
Pitch	0.4mm, 2 rows
Contact Resistance	Signal Terminal: 20mΩ max. (initial) Power Supply Terminal: 20mΩ max. (initial) Hold-down: 20mΩ max. (initial)
Dielectric Withstanding Voltage	AC250V rms. for 1 minute
Insulation Resistance	100MΩ min. (initial)
Durability	30 mating cycles
Operating Temperature Range	-40°C ~ +85°C
Rated Current	Signal Terminal: AC, DC 0.4A per pos. Power Supply Terminal: AC, DC 5.0A per pos. Hold-down: AC, DC 2.0A per pos.(Only for 12A products)
Rated Voltage	AC, DC 50 V
Total Insertion Force	40N max
Total Extraction Force	10N min

Materials and Finishes

Components	Materials	Finishes
Signal Contact	Copper alloy	Au plating (contact area) Au plating (mounting area)
Power 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)

WP10 - P * V A ** - R *******

Series: WP10

Contact Shape
P: Plug

Number of Contacts:
in three digits (***)

Reeled Part Number (Note1)
(R15000)

Modification Code 10: 10A
12: 12A

Finish A: Au plating

Connection Type V: Stacking

Ordering Information (Receptacle)

WP10 - S * V A ** - R *******

Series: WP10

Contact Shape
S: Receptacle

Number of Contacts:
in three digits (***)

Reeled Part Number (Note1)
(R15000)

Modification Code 10: 10A
12: 12A

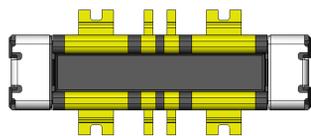
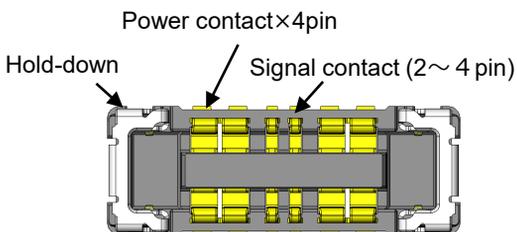
Finish A: Au plating

Connection Type V: Stacking

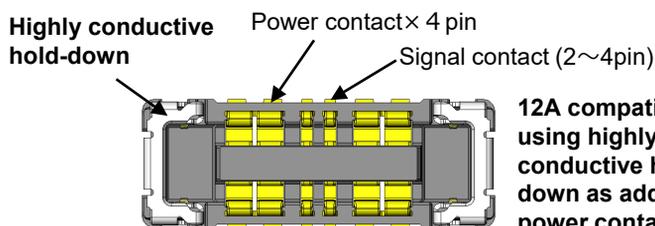
Note 1) An embossed tape reel contains 15,000 pieces

Please contact us for details on embossed tape specifications.

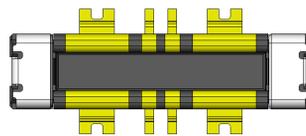
12A compatible product with power supply hold-down



WP10- *004VA10 (10A type)

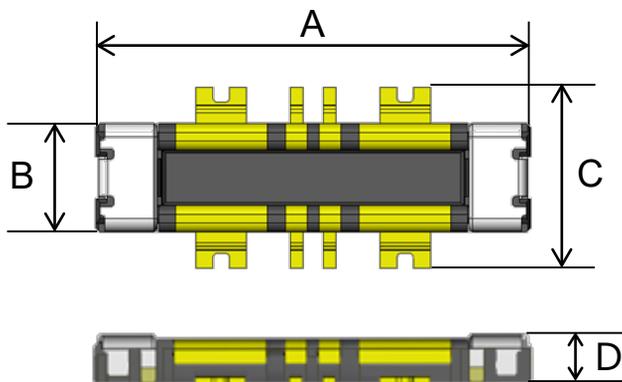


12A compatible using highly conductive hold-down as additional power contacts



WP10- *004VA12 (12A type)

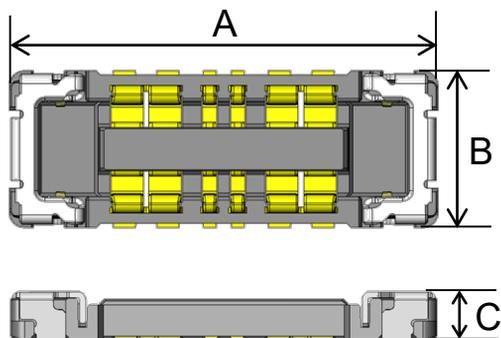
Outer Dimensions (Plug)



Unit: mm

Dimensions Number of Contacts	A	B	C	D
2	4.80	1.29	2.15	0.59
4	5.20	1.29	2.15	0.59

Outer Dimensions (Receptacle)



Unit: mm			
Dimensions Number of Contacts	A	B	C
2	5.68	2.20	0.70
4	6.08	2.20	0.70

Product Drawings and Specifications

Part Number	Drawing Number	Specifications	Handling Instructions
WP10-P***VA10-R15000 (Plug side)	SJ116135 (Individual Product)	JACS-11080	JAHL-11080
	SJ116136 (Reeled Product)		
WP10-S***VA10-R15000 (Receptacle side)	SJ116137 (Individual Product)		
	SJ116136 (Reeled Product)		
WP10-P***VA12-R15000 (Plug side)	SJ123209 (Individual Product)	JACS-11294	JAHL-11294
	SJ123110 (Reeled Product)		
WP10-S***VA12-R15000 (Receptacle side)	SJ123211 (Individual Product)		
	SJ123212 (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

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