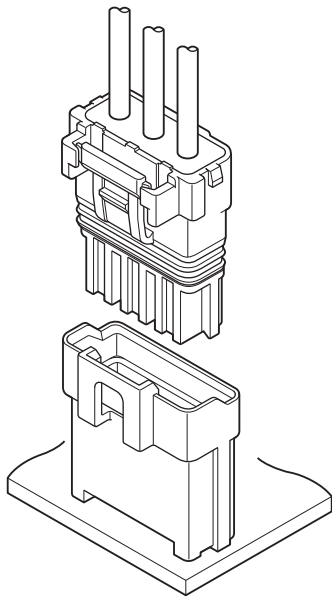




# WPJ CONNECTOR

5.0 mm pitch/Wire-to-Board connectors/Crimp style and Mating style



**Compact, Water Resist and Durable.**  
 This connector for electrical connection can be used on both waterproof and non-waterproof conditions, depending on the usage. Just by placing a rubber part will change it into a water resistant connector. Both conditions are using the same header.

- Water ingress protection with an IPX7 rating per IEC 60529 (grade 7 per JIS C 0920)
- Control key system
- Contacting part of contact is hardly deformed
- Inner lock mechanism
- Compact design

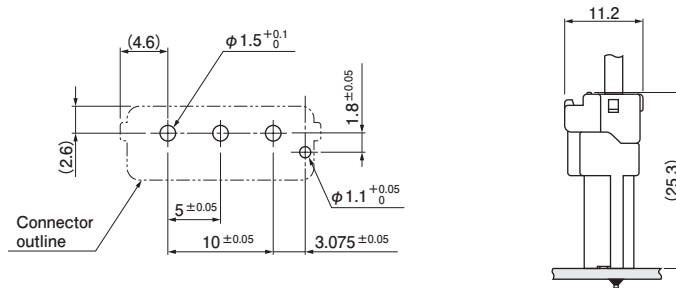
## Standards

- ☑ :Recognized E 60389
- ☑ :Certified LR 20812
- ☑ :R50073100

## Specifications

- Current rating: 7 A AC/DC (AWG #18)
- Voltage rating: 300 V AC/DC
- Temperature range: -25°C to +85°C  
 (including temperature rise in applying electrical current)
- Contact resistance:  
 Initial value/ 10 mΩ max.  
 After environmental tests/ 20 mΩ max.
- Insulation resistance: 1,000 MΩ min.
- Withstanding voltage:  
 There shall be no breakdown or flashover while applying 1,500 VAC for one minute.
- Applicable wire range:  
 Conductor size/AWG #22 to AWG #18  
 Insulation O.D./  $\phi 2.32$  mm to  $\phi 2.83$  mm  
 $\phi 1.52$  mm to  $\phi 2.03$  mm
- Water ingress protection with an IPX7 rating per IEC 60529 (grade 7 per JIS C 0920)
- \* Please refer to the "Handling Precautions for Terminals and Connectors" on our website (listed in the "Technical Documents" column on the Product Information page) before use.
- \* RoHS2 compliance
- \* Dimensional unit: mm
- \* Contact JST for details.

## PC board layout and Assembly layout

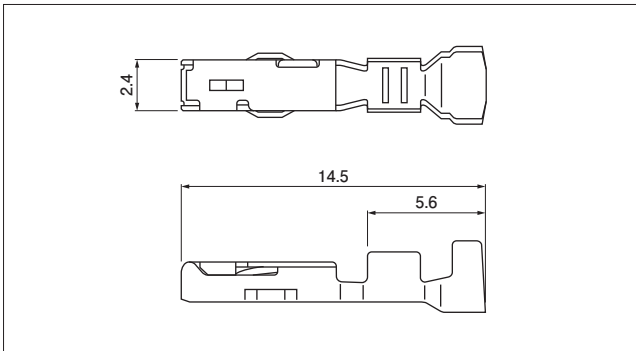


Note: 1. The PC board layout figure shown is viewed from the connector mounting surface.  
 2. Tolerance for the PCB hole pitch shall be  $\pm 0.05$  and shall not accumulate.  
 The above dimensions are reference values. Please contact JST for details.

# WPJ CONNECTOR

(Non-waterproof type)

## Contact



Model No.	Applicable wire range		Insulation O.D. (mm)	Q'ty/reel
	mm <sup>2</sup>	AWG#		
SWPJR-21T-M0.5	0.33 to 0.83	22 to 18	2.32 to 2.83	4,500
SWPJR-21T-M0.5A	0.33 to 0.83	22 to 18	1.52 to 2.03	4,500

Material and Surface finish, etc.

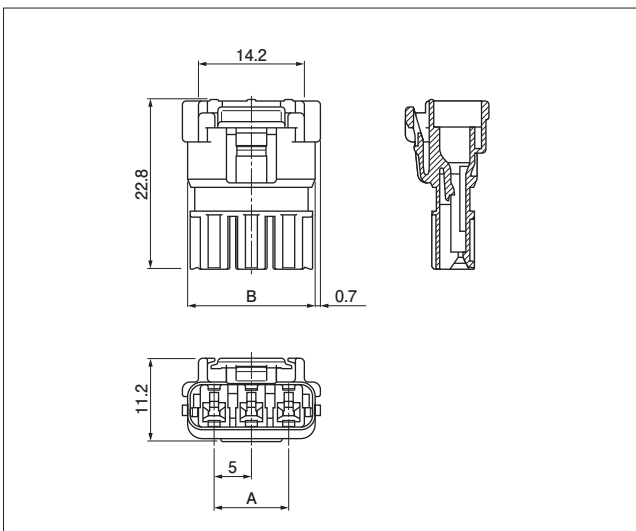
Copper alloy, tin-plated

## Crimping machine

Contact	Crimping machine	Applicator	Crimp applicator with dies
SWPJR-21T-M0.5	AP-K2N	MKS-L	APLMK SWPJR/T21-05
SWPJR-21T-M0.5A			APLMK SWPJR/T21-05A

Note: Contact JST for fully automatic crimping applicator.

## Housing



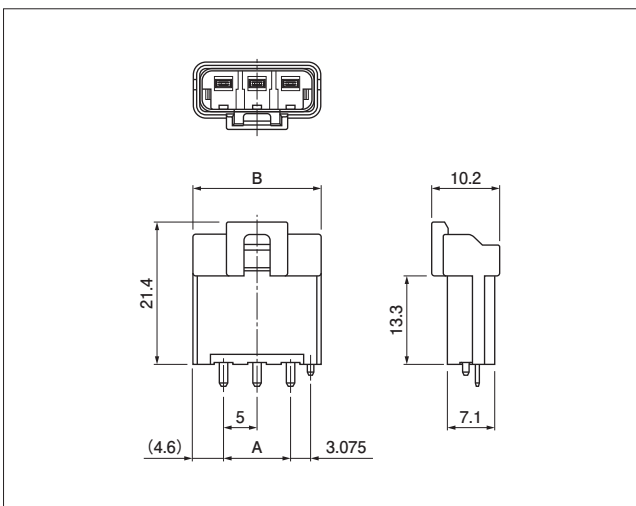
## Receptacle housing

No. of circuits	Model No.	Dimensions (mm)		Q'ty/bag
		A	B	
2	WPJR-02V-1-S	—	12.1	1,000
3	WPJR-03V-1-S	10.0	17.1	1,000

Material and Surface finish, etc.

PBT (Glass-filled), UL94V-0, natural (white)

## Header



No. of circuits	Model No.	Dimensions (mm)		Q'ty/box
		A	B	
2	B02B-WPJSS-1	—	14.2	600
3	B03B-WPJSS-1	10.0	19.2	390

Material and Surface finish, etc.

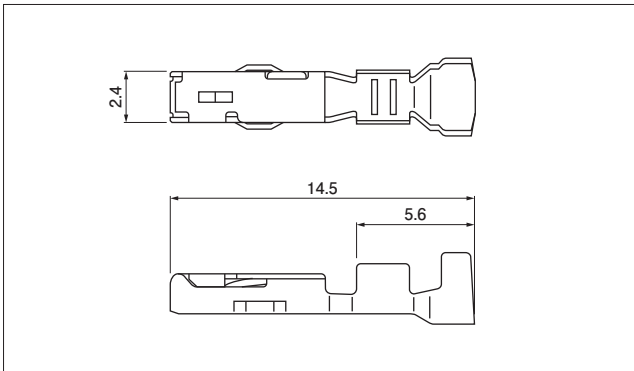
Base housing: PBT (Glass-filled), UL94V-0  
Post: Copper alloy, copper-underplated, tin-plated

Note: This product displays (LF)(SN) on a label.

# WPJ CONNECTOR

(Waterproof type)

## Contact



Model No.	Applicable wire range		Insulation O.D. (mm)	Q'ty/ reel
	mm <sup>2</sup>	AWG#		
SWPJR-21T-M0.5	0.33 to 0.83	22 to 18	2.32 to 2.83	4,500

Material and Surface finish, etc.

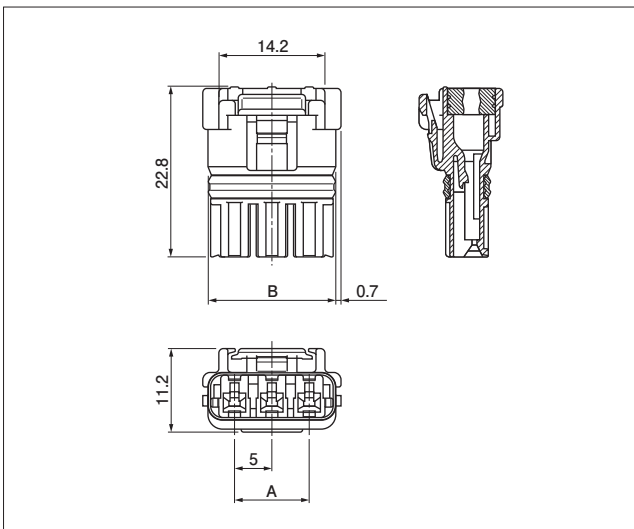
Copper alloy, tin-plated

### Crimping machine

Contact	Crimping machine	Applicator	Crimp applicator with dies
SWPJR-21T-M0.5	AP-K2N	MKS-L	APLMK SWPJR/T21-05

Note: Contact JST for fully automatic crimping applicator.

## Housing



### Receptacle housing assembly

No. of circuits	Model No.	Dimensions (mm)		Q'ty/box
		A	B	
2	02R-WPJV-1-SMM	—	12.1	720
3	03R-WPJV-1-SMM	10.0	17.1	576

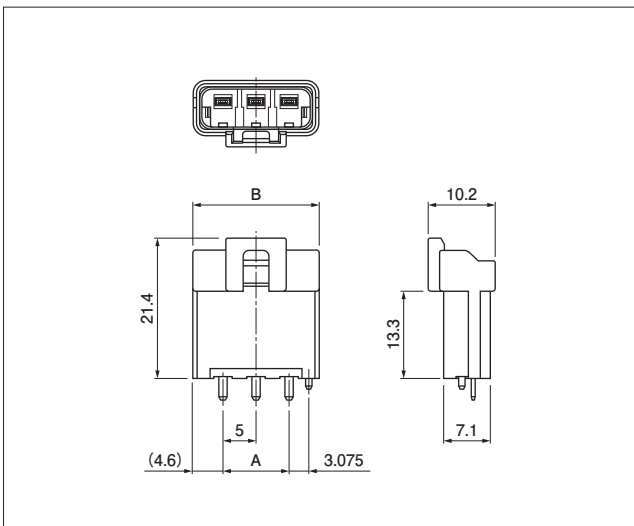
Material and Surface finish, etc.

Receptacle housing: PBT (Glass-filled), UL94V-0, natural (white)

Seal ring: Silicone, green

Seal rubber plate: Silicone, green

## Header



No. of circuits	Model No.	Dimensions (mm)		Q'ty/box
		A	B	
2	B02B-WPJSS-1	—	14.2	600
3	B03B-WPJSS-1	10.0	19.2	390

Material and Surface finish, etc.

Base housing: PBT (Glass-filled), UL94V-0

Post: Copper alloy, copper-underplated, tin-plated

Note: This product displays (LF)(SN) on a label.

## Model number allocation

### Receptacle contact

	S	WPJ	R - 21	T - M	0.5	A
Series name						
Part name: Receptacle contact						
Applicable wire range: AWG #22 to AWG #18						
Material: M··Copper alloy						
Terminal size						
Blank: Wire insulation O.D.···2.32 mm to 2.83 mm						
A: Wire insulation O.D.···1.52 mm to 2.03 mm						

### Receptacle housing (Non-waterproof type)

	WPJ	R - 03	V -	
Series name				
Part name: Receptacle housing				
No. of circuits				
Polarizing key pattern at mating part and housing color				
1-S: Key pattern 1 (Natural)				
2-R: Key pattern 2 (Red)				
3-E: Key pattern 3 (Blue)				

### Receptacle housing assembly (Waterproof type)

	03	R - WPJ	V -		M	M
No. of circuits						
Part name: Receptacle housing						
Series name						
Polarizing key pattern at mating part and housing color						
1-S: Key pattern 1 (Natural)						
2-R: Key pattern 2 (Red)						
3-E: Key pattern 3 (Blue)						
Seal ring color: M··Green						
Seal rubber plate color: M··Green						

### Header

	B	02	B - WPJ	*
Header type: B··Top entry type				
No. of circuits				
Assembly product				
Series name				
Polarizing key pattern at mating part and housing color				
S* -1: Key pattern 1 (Natural)				
R* -2: Key pattern 2 (Red)				
E* -3: Key pattern 3 (Blue)				
Clinched (Kinked) / Not clinched: S··Straight				