

# Float Stack Connectors >

As automotive technology rapidly advances and vehicles become more connected, design engineers seek enhanced flexibility and performance in electric vehicle (EV) applications. Float Stack Connectors offer a wide range of mating heights to meet these diverse circuit demands. These connectors support high-current applications, while a large floating range compensates for tolerance variations, enabling smooth automated assembly. Float Stack Connectors ensure superior reliability with exceptional anti-vibration performance, for robust connections in demanding environments.

## ADVANTAGES AND FEATURES

### Provides design flexibility

Various mating heights (19.00 to 26.00mm)\* and circuit sizes (20 to 80) are available to meet customer demands.

### Enables automation assembly with tolerance compensation

The large floating range is +/-0.75mm in x, y and z directions for high-volume assembly, increasing production.

### Meets high-current demand

Power-pin options enable effective handling of high-current requirements.

### Increases the contact reliability with excellent anti-vibration performance

These connectors have two points of contact for enhanced contact reliability.

Current	5.0A*4 (power pin) Signal 0.5A/pin (with power pin) Signal 1.0A/pin (without power pin)
Number of Circuits	20 to 80
Pitch	1.00mm
Operating Temperatures	-40 to +130°C
Vibration Classification Qualification	USCAR-2 V2 USCAR, LV214 Compliant

Note: Circuit sizes ranging from 12.00 to 18.00mm and 27.00 to 30.00mm are under development.



## MARKETS AND APPLICATIONS

### Automotive

Battery management systems  
DC-to-DC converters  
Inverters  
Motor control units  
On-board chargers

### Industrial Automation

Automation robot arms  
Surface mount (SMT) machines



Inverters



SMT Machines

# Float Stack Connectors

## SPECIFICATIONS

### Reference Information

Packaging: Embossed tape with cover  
 Designed in: Millimeters  
 RoHS: Yes  
 Halogen Free: Yes  
 PFAS-free: Yes

### Electrical

Rated Voltage (max.): 200V\*  
 Current (max.):  
   0.5A/signal pin with 5A Power\*4pin  
   1.0A/signal pin(without Power)  
 Contact Resistance:  
   Signal pin: <60 mΩ  
   Power Pin: <30 mΩ  
 Dielectric Withstanding Voltage: 1000V  
 Insulation Resistance: 100 MΩ

\*Based on IEC\_60664\_1, Pollution Degree 1

### Mechanical

Pitch: 1.00mm  
 Mated Height: 19.00, 20.00, 21.00, 22.00, 23.00,  
   24.00, 25.00, 26.00mm  
   12.00 to 18.00mm and 27.00 to 30.00mm  
   (under development)  
 Width: 10.08mm  
 Length (PLUG):15mm+(N/2 Pins\*1.0mm)  
 Floating: ±0.75 (x, y, z)  
 Lead-in:±1.5mm  
 Contact Type: Dual Contacts  
 Wiping Length:  
   Terminal contact point 1— 2.52 ±0.75mm  
   Terminal contact point 2—1.42 ±0.75mm  
   Power Contact Point: 1.85 ±0.75mm  
 Structure Type: Vertical  
 Circuit Size: 20 to 80 circuits  
 Durability (max.): 20 cycles  
 Vibration Classification: USCAR-2 V2

### Physical

Housing: LCP UL 94V-0  
 Contact: copper alloy  
 Plating:  
   Contact Area—gold  
   Solder Tail Area—gold  
   Underplating—nickel  
 Operating Temperatures: -40 to +130°C