



# BarKlip® BK300 Connector

## Product Presentation



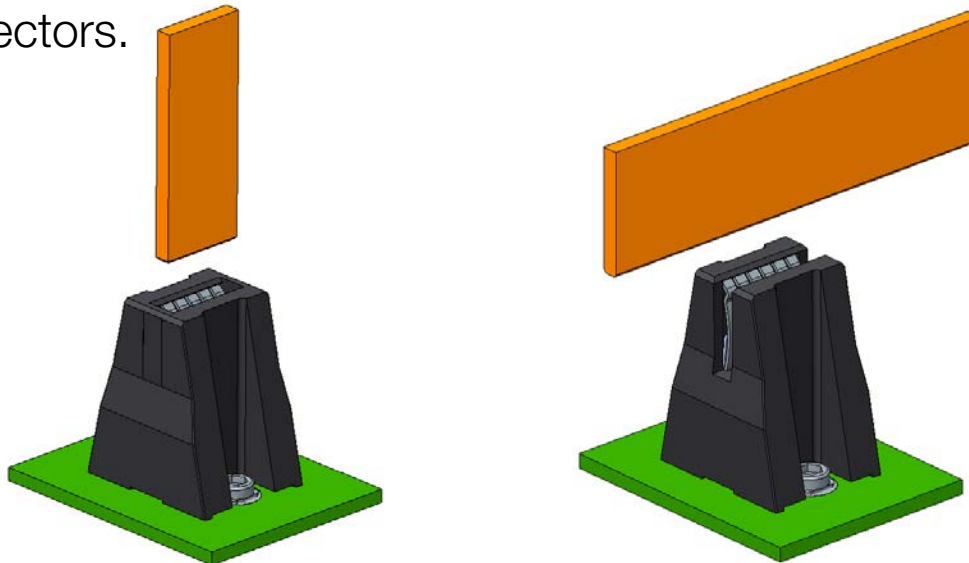
# BarKlip® BK300 Connector



## What is it?

The BK300 BarKlip® busbar connectors offer some key improvements to other busbar connectors such as; the 14 independent conducting beams which all make contact with the mating busbar. These power beams provide lower resistance by maintaining contact with the mating busbar through common mis-aligned conditions.

Secondly, the entire contact is plated with FCI's proprietary silver-based, AGT® plating to further reduce the resistance and eliminate fretting corrosion found in tin-plated connectors.



# BarKlip® BK300 Connector



## Advantages

- Low resistance, long term reliability
- Handles adverse tolerances to misaligned busbar, offset 0.56 mm Max
- Satisfies the demand for low insertion/extraction forces
- Hot plug capable for controlled and reliable separation of high power
- Host different thickness Busbar, 2mm, 3mm and 4 mm
- Ideal for high current busbar power supply/distribution applications, up to 350A
- Closed and open housing options, pre-load screw assembly option
- AGT™ silver –based plating enables low contact resistance and high melting point.



# BarKlip® BK300 Connector



## Features and Benefits

Features	Benefits
<ul style="list-style-type: none"><li>▪ 14 independent points of contact for low resistance (0.08mΩ) and high reliability</li></ul>	<ul style="list-style-type: none"><li>▪ Power contact capable of carrying 350Amps/ contact (30°C T-rise in still air)</li></ul>
<ul style="list-style-type: none"><li>▪ Silver plated contacts – to deliver the lower resistance without the high cost of gold</li></ul>	<ul style="list-style-type: none"><li>▪ Excellent quality/ cost ratio</li></ul>
<ul style="list-style-type: none"><li>▪ Housing material is Halogen free</li></ul>	<ul style="list-style-type: none"><li>▪ For next generation environmental requirements</li></ul>
<ul style="list-style-type: none"><li>▪ Large operating temperature range (-40°C ~ 105°C)</li></ul>	<ul style="list-style-type: none"><li>▪ For extreme environments</li></ul>
<ul style="list-style-type: none"><li>▪ Screw - mount tabs with free-load option are available</li></ul>	<ul style="list-style-type: none"><li>▪ Easy for assembly</li></ul>

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## Typical Application

- AC/DC pluggable power supplies in data, telecom & datacom/ networking equipment
- Rack mounted power distribution applications involving busbar- to- busbar connection
- Industrial equipment requiring high current density connections between busbars and PCBs
- Hyperscale Computing architectures using busbars for power distribution



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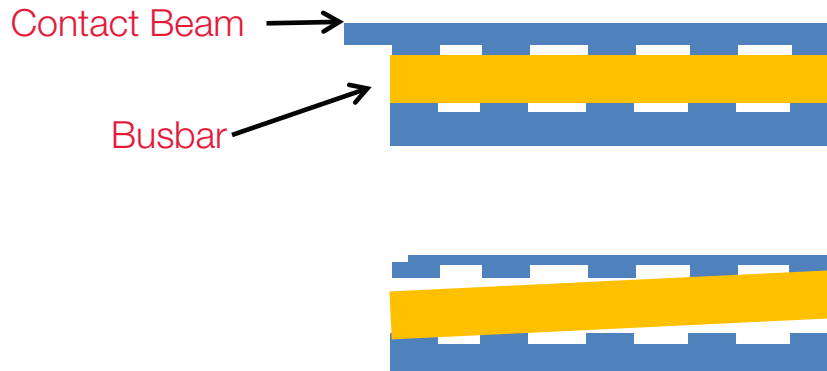
## Specifications

- Current Rating: Up to 350A (30°C T-rise in still air)
- Contact Resistance: 0.08mOhm max.
- Durability: Min. 50 mating cycles
- Wipe length: 14.5mm
- Dielectric Withstanding Voltage: 1000Vac
- Mating force: 40N Max
- Unmating force: 8N Min.
- Operating Temperature -40°C to 105°C
- RoHS Information: this product is compatible according to the European Union Directive 2002/95/IEC

# BarKlip® BK300 Connector

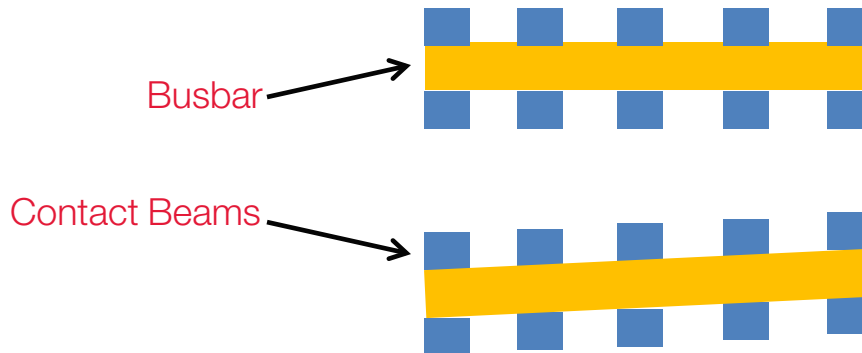
## Competitive advantage: Beam Design

- Competitor's design



The competitor's design has one wide/rigid beam which means that contacts are not free to flex independently. With a misaligned bar, the beams do not adjust independently which results in higher resistance.

### FCI's Design Independent beams design



With FCI's design, all the beams act independently and adjust to variations in alignment – the result is maintained low resistance.

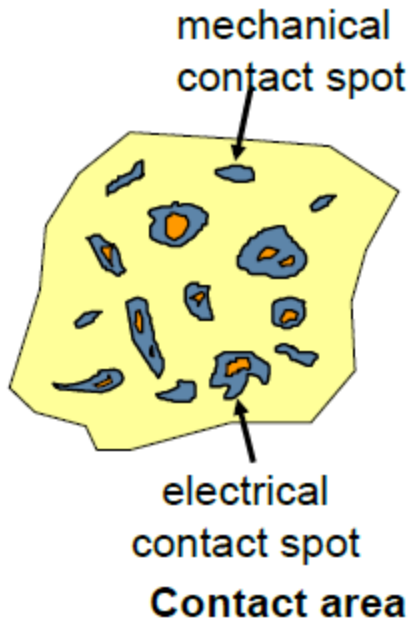
# BarKlip® BK300 Connector



## Competitive advantage: Precious Metal Plating



Tin can fuse together due to the high temperatures achieved at the interface asperities in the plating. Tin can also degrade due to “fretting corrosion”.



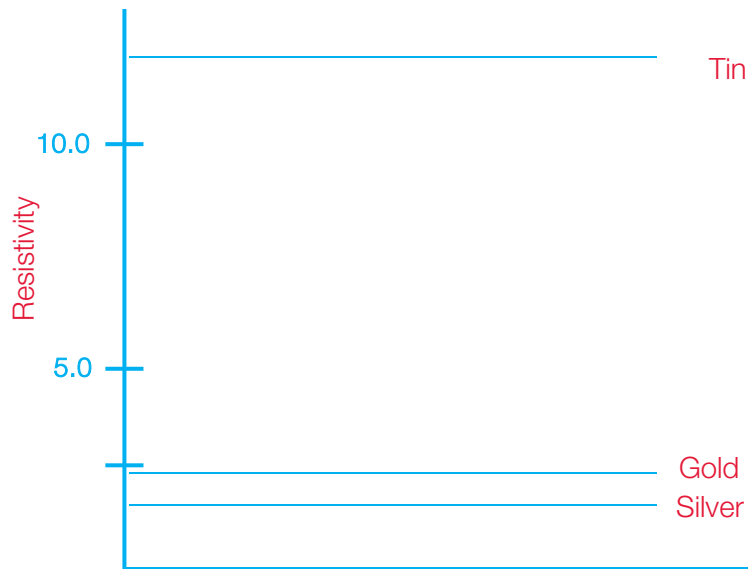
Silver or gold are the industry standards for high current applications because of low resistance and a high melting point. FCI’s BarKlip® busbar connectors are plated in silver-based plating.



# BarKlip® BK300 Connector



## Competitive advantage: Precious Metal Plating



Material	Resistivity micro Ω cm
Silver	1.6
Gold	2.4
Aluminum	2.8
CuBe2%	5.7
Nickel	7
Tin	11.5
Cu6Sn5	12.3
CU3Sn	21.2

The Result: Vertical BarKlip® Contact Resistance < 0.08 milli-ohms maximum

# BarKlip® BK300 Connector



## Part Numbers

Description	Part Number
Vertical BarKlip open wall for 2mm Busbar	10129416-001LF
Vertical BarKlip open wall for 3mm Busbar	10129416-002LF
Vertical BarKlip open wall for 4mm Busbar	10129416-003LF
Vertical BarKlip closed wall for 2mm Busbar	10129416-004LF
Vertical BarKlip closed wall for 3mm Busbar	10129416-005LF
Vertical BarKlip closed wall for 4mm Busbar	10129416-006LF



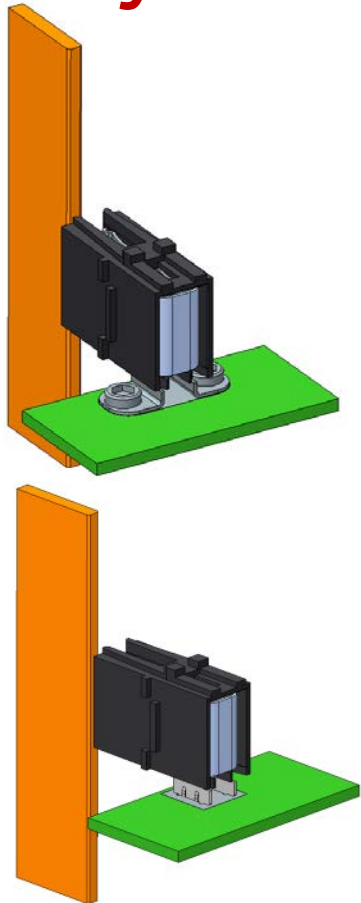
10129416 Series Vertical BarKlip®



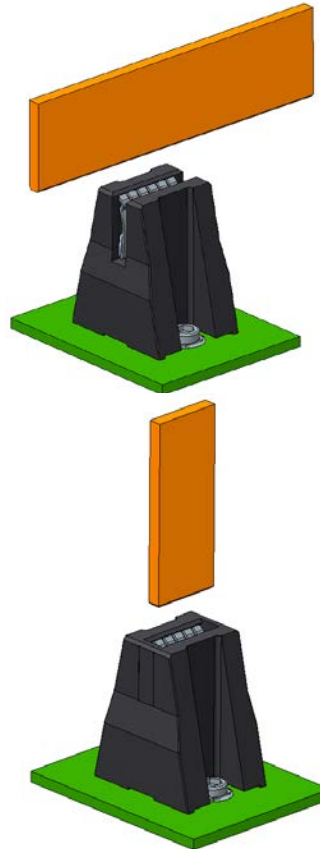
10134620 Series Vertical BarKlip®

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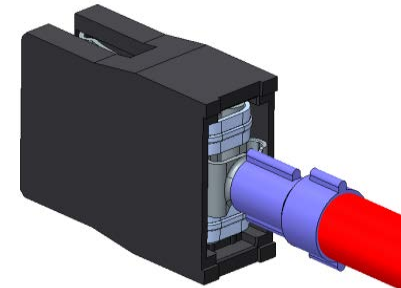
## Family Overview



Right Angle BarKlip®



Vertical BarKlip®



BarKlip® I/O



**THANK YOU**

