



# Right Angle BarKlip<sup>®</sup> Busbar Connector Product Presentation

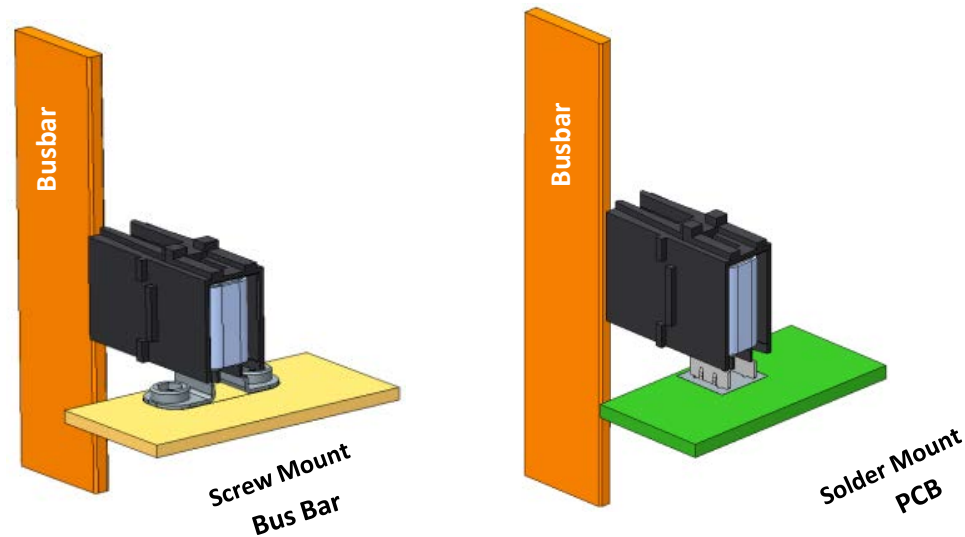


# Right Angle BarKlip®

## What is it?

BarKlip busbar connectors offer some key improvements to other busbar connectors. A key difference is the 10 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 misaligned conditions. The BarKlip contact also includes a stainless-steel helper spring to ensure proper mating force and contact resistance is maintained during the life of the connection.

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

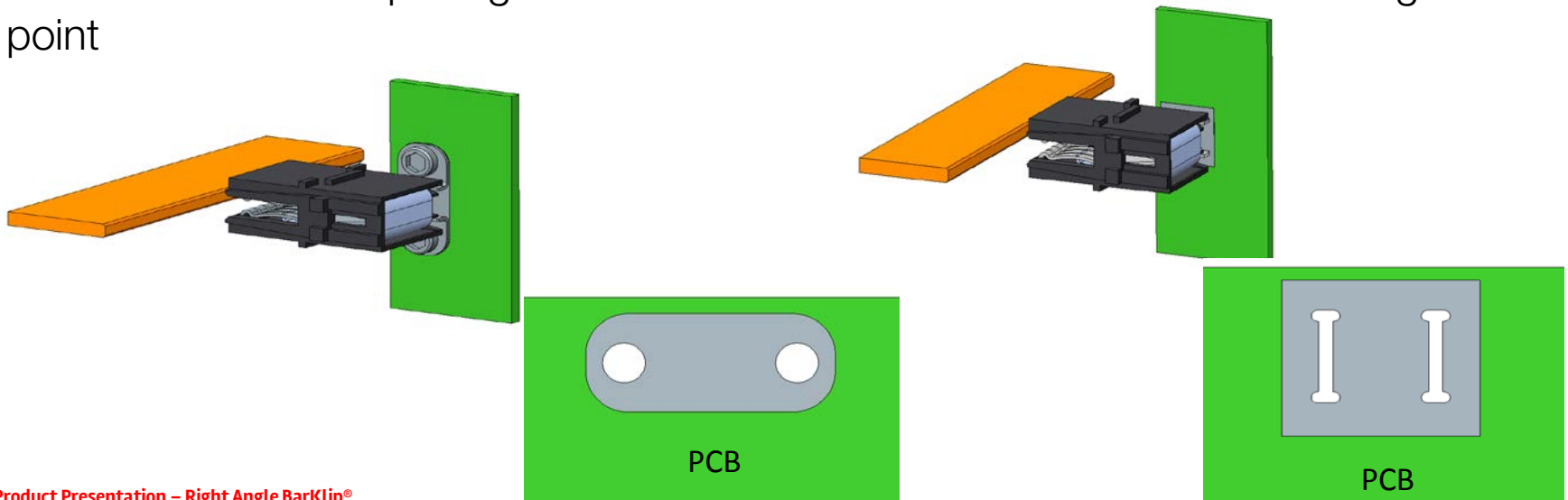


# Right Angle BarKlip®



## Advantages of BarKlip®

- Low resistance, long term reliability
- Handles adverse tolerances through the unique feature allowing reliable mating to misaligned busbar, offset 0.75 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, longer wipe length
- Ideal for high current busbar power supply/distribution applications, up to 170A
- AGT™ silver –based plating enables low contact resistance and high melting point



# Right Angle BarKlip®



## Features and Benefits

Features	Benefits
<ul style="list-style-type: none"><li>■ 10 independent points of contact for low resistance (0.2mΩ) and high reliability</li></ul>	<ul style="list-style-type: none"><li>■ Power contact capable of carrying 170Amps/ 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>■ Solder tails or screw - mount tabs are available</li></ul>	<ul style="list-style-type: none"><li>■ Termination flexibility</li></ul>

# Right Angle BarKlip®



## Typical Applications

- 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



# Right Angle BarKlip®



## Specifications

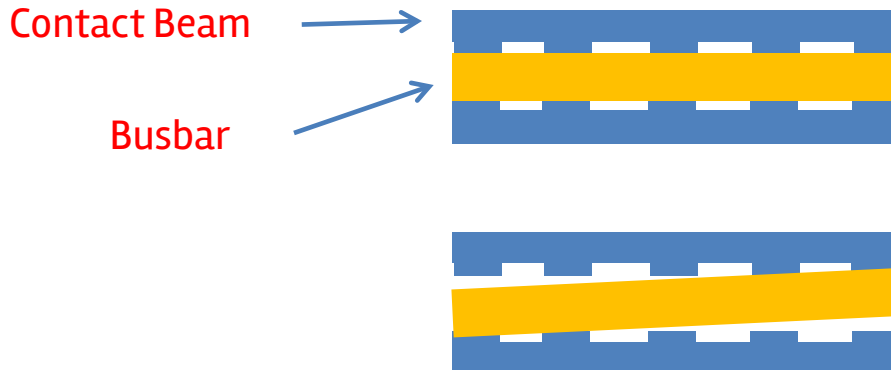
- Current Rating: Up to 170A (30°C T-rise in still air)
- Contact Resistance: 0.2mΩ max.
- Durability: Min. 50 mating cycles
- Wipe length: 6.0mm
- Dielectric Withstanding Voltage: 1000Vac
- Mating force: 40N Max
- Unmating force: 12.5N Min.
- Operating Temperature -40°C to 105°C
- RoHS Information: this product is compatible according to the European Union Directive 2002/95/IEC

# Right Angle BarKlip®

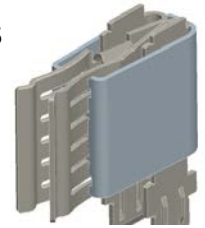


## Competitive advantage: Beam Design

Competitor's design

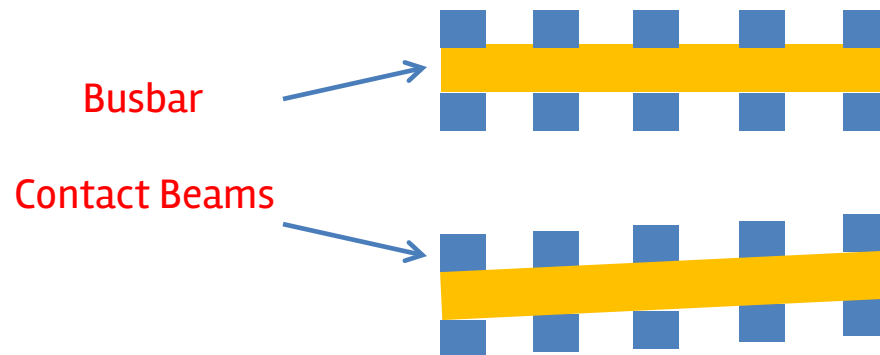


The competitor's design has one wide/rigid beam which means that contacts are not free to flex independently. With a misaligned bar, the beams do not adjust independently which results in higher resistance.

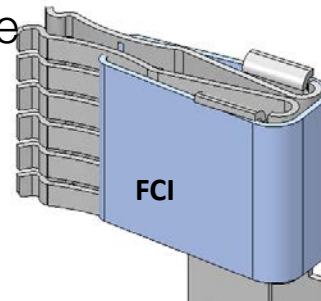


Competition

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.



FCI

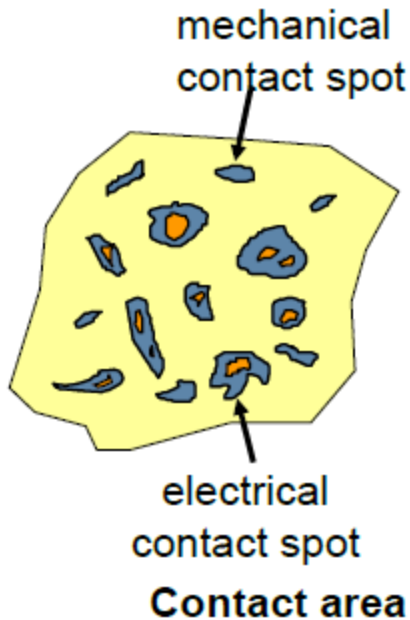
# Right Angle BarKlip®



## 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”.



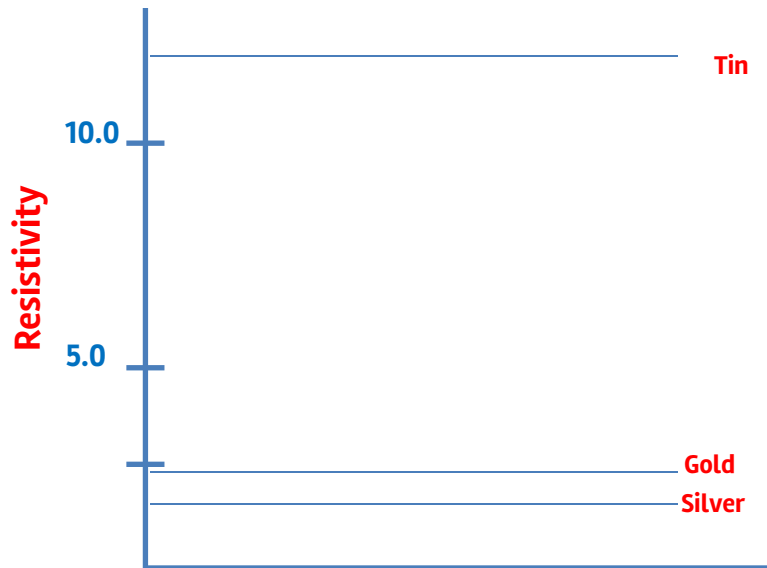
Silver or gold are the industry standards for high current applications because of low resistance and a high melting point. FCI’s BarKlip® busbar connectors are plated in silver-based plating.



# Right Angle BarKlip®



## 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 :BarKlip Contact Resistance < 0.2 milli-ohms maximum

# Right Angle BarKlip®

## Part Numbers

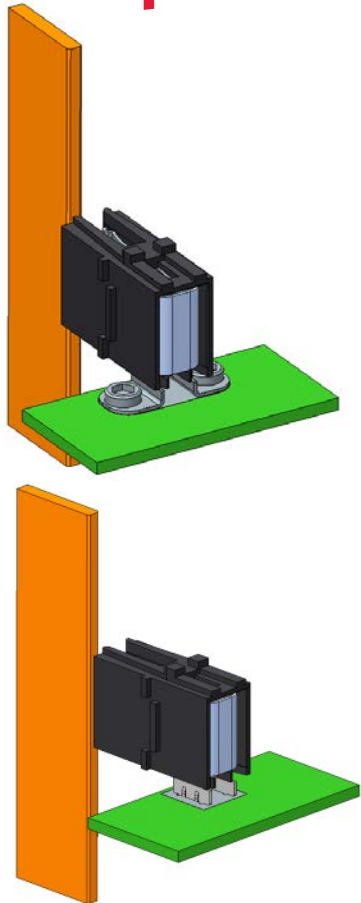


Description	Part Number
RA BarKlip™ with solder tabs	10125600-*
RA BarKlip™ with screw mount	10125595-*

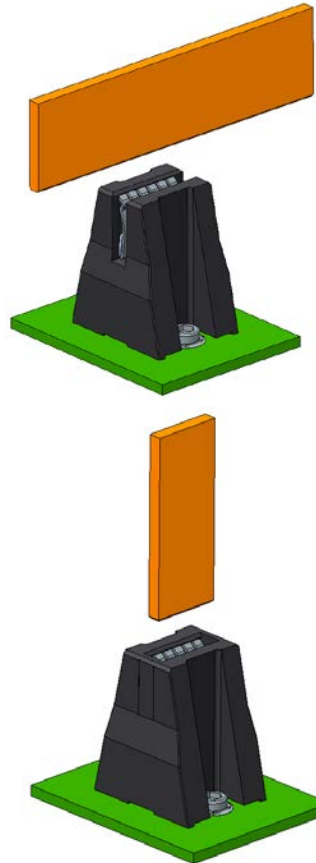
<http://www.fci.com/en/products/power-solutions/busbar-connectors.html>

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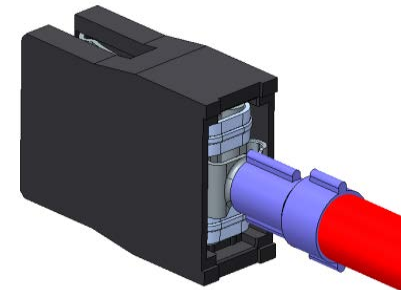
## BarKlip® Family Overview



Right Angle BarKlip®



Vertical BarKlip®



BarKlip® I/O

<http://www.fci.com/en/products/power-solutions/busbar-connectors.html>



**THANK YOU**

