


NUMBER GS-20-0451	TYPE Application Specification		
TITLE Application Guide for Barklip I/O cable connector		PAGE 1 of 7	REVISION 2
		AUTHORIZED BY Jackbin Zou	DATE 20 Mar 17
CLASSIFICATION UNRESTRICTED			

1.0 OBJECTIVE

This specification provides information and requirements regarding customer application of Barklip I/O cable connector. This specification is intended to provide general guidance for application process development. It is recognized that no single application process will work under all customer scenarios and that customers will develop their own application processes to meet their needs. However, if these application processes differ greatly from the one recommended, FCI cannot guarantee results.

2.0 SCOPE

This specification provides information and requirements regarding customer application of Barklip I/O cable connectors. These connectors provide a means of bringing high current from Bus Bar conductors to cable connectors.

3.0 GENERAL

This document is meant to be an application guide. If there is a conflict between the product drawings and specifications, the drawings take precedence.

4.0 DRAWINGS AND APPLICABLE DOCUMENTS

FCI PRODUCT SPECIFICATION GS-12-1222

Product drawings and **FCI's GS-12-1222** Product Specification are available at www.fci.com. In the event of a conflict between this application specification and the drawing, the drawing will take precedence. Customers are advised to refer to the latest revision level of FCI product drawings for appropriate details.

5.0 APPLICATION REQUIREMENTS

5.1.1 Connectors Mating Part (Bus Bar)

The Bus Bar Power Conductors shall comply with the following requirements:

Recommended material: Copper, solid blade

Material Thickness: 3.0 ± 0.1 mm

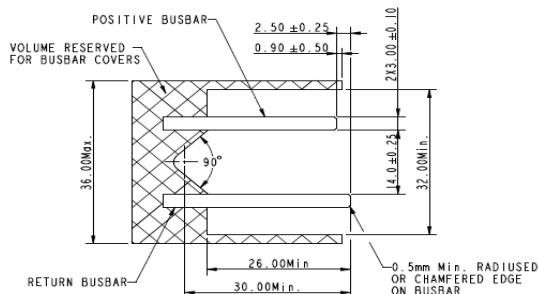
Common stock width: 30.0 mm minimum


Nominal pitch at contacting area: 17 mm

Surface roughness in contact area: Ra 1.6 μ m maximum

Plating in contact area: 3 μ m min Silver over 1.27 μ m min Nickel

Mating edges: 0.5 mm minimum, rounded or chamfered



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5.1.2 General Application

Blind mate: this connector can handle adverse tolerances and allowing reliable mating to misaligned Bus Bar

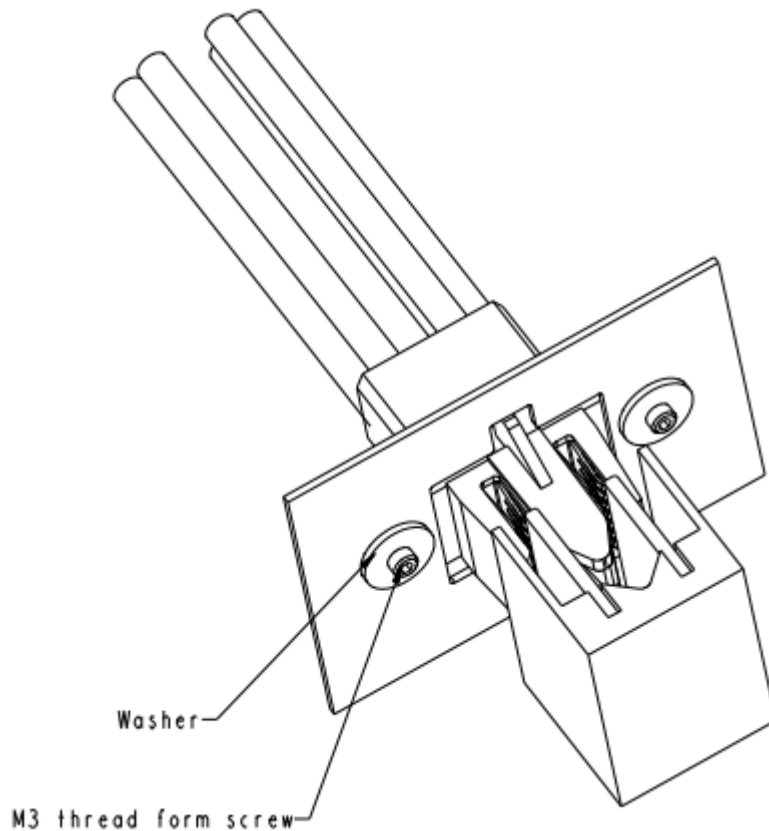
Bus Bar misalignment: ± 0.55 mm Max.


Mates directly to a dual pole power Bus Bar

Ideal for high current Bus Bar power supply/distribution applications

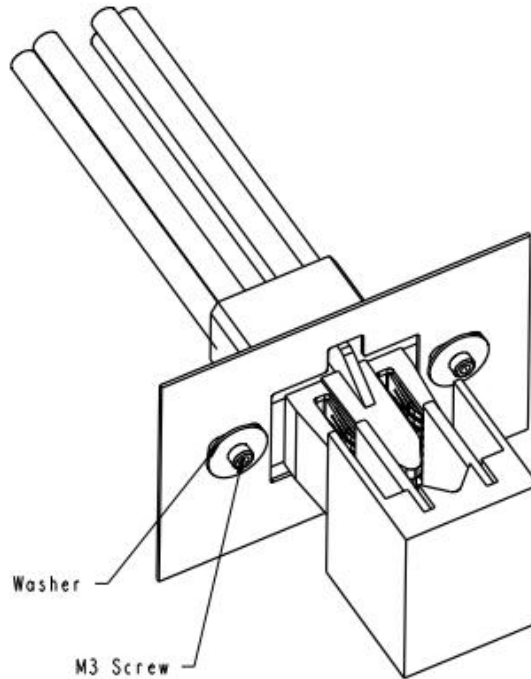
5.2 Connector assembled part

5.2.1 The assembled picture of 10129052 is shown in following:

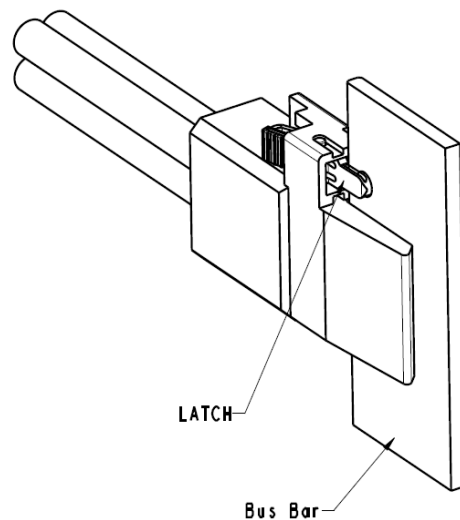



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5.2.2 The assembled picture of 10134195 is shown in following:



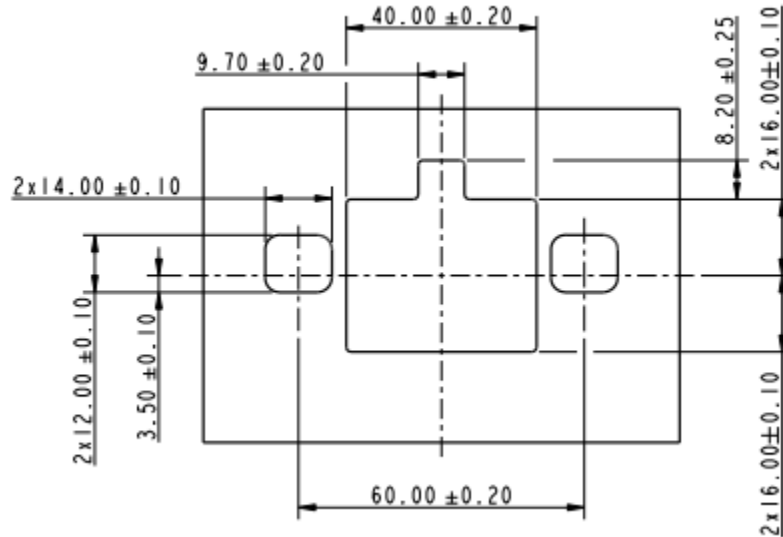
5.2.3 The assembled picture of 10129172 is shown in following,
The latch of housing shall withstand a minimum force of 70 N when an axial load is applied directly to the cable connector. Force shall be applied at a rate of 25.4mm per minute.



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5.2.1 Connector mounting panel

Recommended mounting panel is shown in following:



5.2.2 Connector fixing part

a. Screw

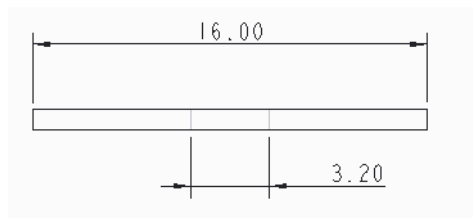
Recommended screw is shown in following:


10129052: M3 thread form screw

10134195: M3 screw

b. Washer

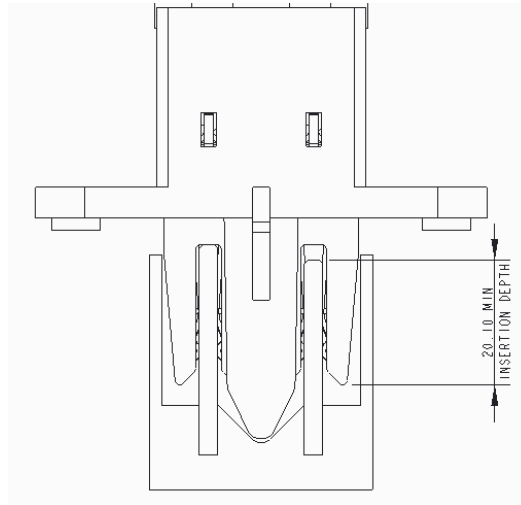
Recommended washer is shown in following:



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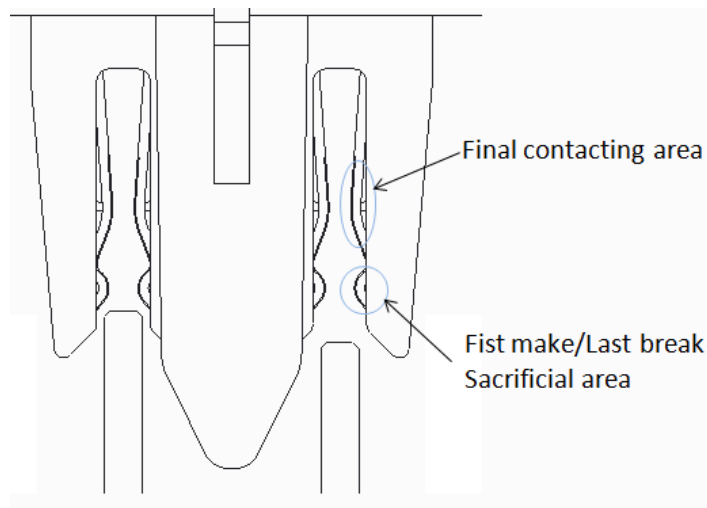
5.2.4 Connector Mating


The connector shall preferably fully mate the Bus Bar until it bottoms in housing.
The minimum required mating depth to be 20.10mm to ensure a reliable connection.



6.0 Explanation of uncommon or unusual characteristics

Spark spots at the contact entrance are not detrimental. This sacrificial area is designed as “first make / last break” –point, in order to prevent spark spots damage on the final contacting areas (situated deeper in the connector).



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7.0 RECORD RETENTION

<u>REV</u>	<u>PAGE</u>	<u>DESCRIPTION</u>	<u>EC#</u>	<u>DATE</u>
2	All	Preliminary	TBD	2017-03-20