

Product Change Notification

Positronic will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice.

PCN Number

PCN-10624

PCN Title

ODD, DAD, DDA, DDB, DDC, XDA, and XDB Series Design Improvement

Notification Date

14 August 2023

Implementation Date

14 October 2023

Part Description

D-sub connectors with signal contacts captivated between two insulator halves, including ODD, DAD, DDA, DDB, DDC, XDA, and XDB Series fixed-contact connectors. (Removable contact connectors are not impacted.)

Affected Part Number(s)

See affected parts [list](#).

Change Description

There are four primary changes which make up this design improvement.

- 1) The current two-piece unbonded insulator will become a one-piece unibody design, unless otherwise noted; and the contact retention mechanism will change from a system captivating contacts between two molding halves to the concurrently qualified press-in contact system.
- 2) The alignment bar (when used) will be shorter in length than the existing version.
- 3) Right angle PWB tail contacts (where applicable) will have a larger bend radius and will continue to conform to all requirements.
- 4) Solder cup contact termination lengthened.

Reason for Change

The four primary reasons for change include:

- 1) The unibody design eliminates the need for contact retaining subassembly operations.

- 2) The shorter alignment bar, with self-aligning feature, eliminates interference with the brackets and the need for gluing or tying at or above the bracket.
- 3) The larger bend radius will improve manufacturability by reducing strain on right-angle PWB tail contacts.
- 4) Lengthening the solder cup termination allows for the contact to be seated and oriented more precisely, as well as increasing ease of soldering in the one-piece insulator.

Performance Impact

There is no detrimental performance impact as a result of this change.

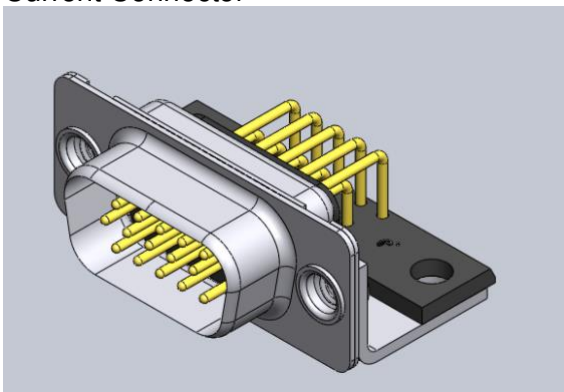
Distinguishable Characteristics

Printed board mount contacts shall be designed to use the larger bend radius to improve manufacturability. Board and mating dimensions are not affected.

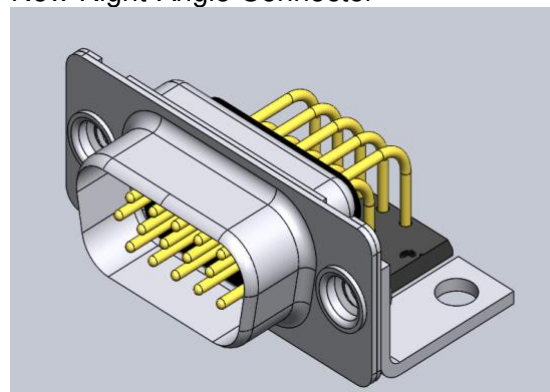
Alignment bar will be shortened.

Solder cup contacts will increase in termination length.

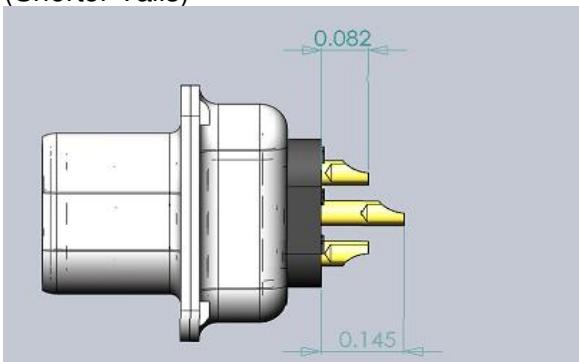
Current Connector



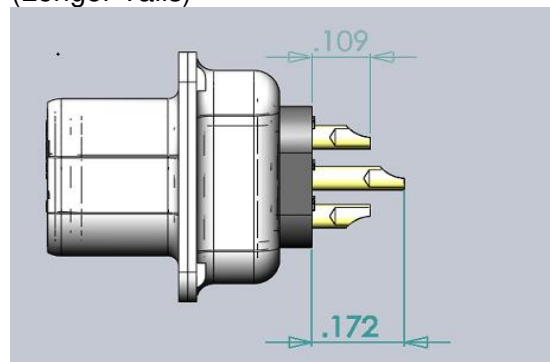
New Right-Angle Connector



Current Female Solder Cup Contacts
(Shorter Tails)



New Seated Solder Cup Contacts
(Longer Tails)



Qualification Data

I. Qualification Testing

The scope of testing was to test seven (7) each of the following ODD connectors:

Part Number Tested

ODD78M210000
ODD78F210000
ODD78M320000
ODD78F320000
ODD78M4R7000
ODD78F4R7000

II. Testing

All testing was conducted per relevant industry standards in accordance with performance standards as listed in the relevant Positronic catalog.

Table XI, Qualification Inspection, Group I:

Visual & Mechanical (per 4.5.2)	PASS
Magnetic Permeability	N/A ¹
Maintenance Aging	N/A ²
Contact Retention (per catalog)	PASS
Dielectric Withstanding Voltage @ Sea Level	PASS
Dielectric Withstanding Voltage @ Altitude	PASS
Cable Retention	N/A ³
Insulation Resistance @ Ambient Temp. (per catalog)	PASS
Contact Resistance	PASS
Contact Engagement and Separation Forces	N/A ⁴
Mating and Unmating Force	PASS
Temperature Cycling	N/A ⁵
Air leakage	N/A ⁶
Humidity	N/A ⁷
Dielectric Withstanding Voltage after Humidity	N/A ⁸
Insulation Resistance after Humidity	N/A ⁹
Vibration	N/A ¹⁰
Shock	N/A ¹¹
Durability	PASS
Contact Engagement and Separation Forces after Durability	N/A ¹²
Mating and Unmating Force after Durability	PASS
Salt Spray (Corrosion)	N/A ¹³
Oversize Pin Exclusion	N/A ¹⁴
Resistance To Test Probe Damage	N/A ¹⁵
Contact Engagement and Separation Forces	N/A ¹⁶
Fluid Immersion	N/A ¹⁷
Insert Retention in Housing	N/A ¹⁸
Final Visual & Mechanical	PASS
Thermal Vacuum Outgassing	N/A ¹⁹
Resistance to Solder Heat (solder cup)	PASS
Solderability	N/A ²⁰
Contact Pin Strength	N/A ²¹

<i>Additional Testing</i>	
Working Voltage (per catalog)	PASS
Temperature Rise	PASS

-
- ¹ Applies to Class N & M Connectors only
 - ² Applies to Crimp Connectors only
 - ³ Applies to Flat Cable Connectors only
 - ⁴ No design change to female contact mating area
 - ⁵ Material previously climate tested & validated by similarity
 - ⁶ Applies to Class H & K Connectors only
 - ⁷ Material previously climate tested & validated by similarity
 - ⁸ Subtest of Humidity
 - ⁹ Subtest of Humidity
 - ¹⁰ Contact Retention System qualified by similarity (HDC's, etc.)
 - ¹¹ Contact Retention System qualified by similarity (HDC's, etc.)
 - ¹² No design change to female contact mating area
 - ¹³ The design is not required to meet humidity standards
 - ¹⁴ No design change to female contact mating area
 - ¹⁵ No design change to female contact mating area
 - ¹⁶ No design change to female contact mating area
 - ¹⁷ Material previously climate tested & validated by similarity
 - ¹⁹ No insulator material change
 - ²⁰ No contact plating change
 - ²¹ Contact design previously tested & validated by similarity

Regional Headquarters

USA +1 800 641 4054
 Europe +33 5 6263 7442
 Asia +65 6842 1419

PCN Correspondence

pcn@connectpositronic.com

** The implementation date is the projected date that customers may begin to receive changed product. Based on the rate of inventory depletion of current product, the implementation date may be later, but not earlier, than the stated date. Although customers should be prepared to receive changed product on this date, Positronic may continue shipping current product until a time in which the inventory has been depleted. This would result in current product being shipped to customers after the stated implementation date.*

Information provided herein is in connection with Positronic products and this information is provided "AS IS". Positronic assumes no responsibility for any errors that may appear in this document. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Positronic Terms and Conditions of Sale for such products, Positronic assumes no liability whatsoever, and Positronic disclaims any express or implied warranty, including liability or warranties relating to fitness for a particular purpose, merchantability, or non-infringement of any patent, copyright or other intellectual property right. Positronic may make changes to specifications and product descriptions at any time, without notice.