- Low insertion force contacts.
- Both environmental and non- environmental versions.
- Polarizing posts that are removable from the mating face.
- Field replaceable inserts for size 22 and power contacts.
- Up to 800 size 22 contacts in one connector.
- Crimp, coax, power, printed circuit and wire wrappable post style contacts.
- Uses standard DPX crimp, insertion/extraction tooling.
- Waveguide connections available.

**BKAD/E**
Rear Release/Rear Removable
Size 12, 16, 20, 22 Crimp Contacts

BKAD/E connectors represent a major milestones in presenting a new rack and panel connector for support of the air transportation market.
Several important design concerns have been addressed and solved in this new series. High mating forces of pluggable modules in a rack have been reduced by approximately two-thirds.

The low insertion force contacts are also interchangeable with the contacts used in the DPX series and permit retrofit of existing equipment.

**BKAF**
Front Release/Front Removable
Size 22 Solder Tail and Wrap Post Contacts

This new connector is totally intermateable and intermountable with ARINC 600 connectors now in the field.
The BKAF permits the user to easily replace a contact in case of problems, rather than disassemble the entire connector--it is available with size 22 contacts in wrap post or solder-tail versions. The system maintains the advantages of low insertion force technology incorporated in all ARINC 600 connectors.

## Pos-Aline Connector Construction Feature

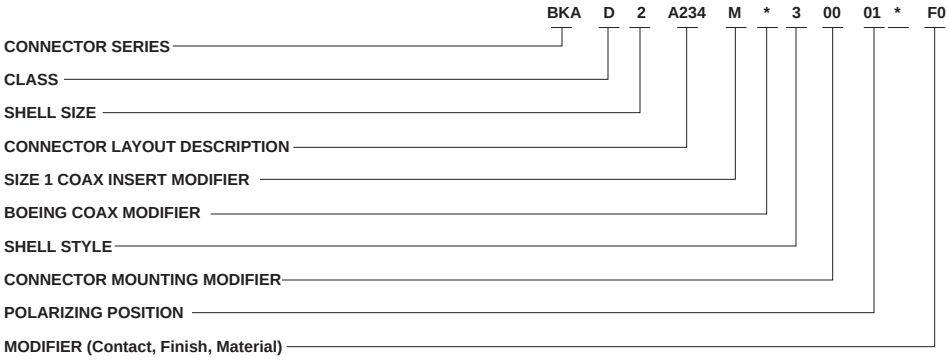
In the ARINC 600 connector series, Size 22 contacts are the only size that utilize this design feature. The hooded socket extends from its insulator while the pin contacts are shrouded by its front insulator.
All other contacts used in this series employ standard contact design.

The result is that the complement of contacts for the plug connectors will consist of pin contacts for size 22 and socket contacts for all others. The receptacle contacts will be just the reverse, socket contact for size 22 and pin contacts for the balance.

## Material Specifications

| | | BKAD | BKAE | BKAF | Specifications |
|---|---|---|---|---|---|
| **Shell & Waveguide** | Material | Aluminum alloy | Aluminum alloy | Aluminum alloy | QQ A-591/A380 |
| | Finish | Alodine 1200 | Alodine 1200 | Alodine 1200 | MIL-C-5541 |
| **Insulator** | Material | Thermoset | Thermoset | Thermoset | N/A |
| **Contacts** | Material | Copper alloy | Copper alloy | Copper alloy | QQ-C-533 |
| | Finish | Gold over Nickel | Gold over Nickel | Gold over Nickel | MIL-G-45204 |
| | Termination | Crimp | Crimp | P.C./Wrap Post | N/A |
| **Grommets/Seals** | Material | N/A | Silicone-based Elastomer | N/A | N/A |
| **O-Ring** | Material | N/A | Silicone-based Elastomer | N/A | N/A |

## How to Order




* = For Polarizing Position greater then 99, add third digit.

**CONNECTOR SERIES**

BKA (Per ARINC 600)

**CLASS**

D - Non-environmental (rear release, crimp contacts)

E - Environmental (rear release, crimp contacts)

F - Non-environmental (front release, solder and wrap post #22 contact, rear release all others)

C - Same as E, except uses BKAD shells, and Less 0 rings on plug side.

S - Environmental (0-ring is used to seal between connector shell and insulators) with rear release, crimp contacts.

T - Non-environmental connector using filtered contacts (reference Cannon Phoenix)

**SHELL SIZE**

1 - Max. contact capacity - 125

2 - Max. contact capacity - 400

3 - Max. contact capacity - 800

**CONNECTOR LAYOUT DESCRIPTION**

(See page 4)

**SIZE 1 COAX INSERT MODIFIER**

M - Connector contains modified 71W1 or 2W2 insert (four MTG screw hole locations and coaxial contact used in this insert are interchangeable between different manufacturers

NOTE: A dash must be inserted whenever code does not apply.

**BOEING COAX MODIFIER**

| Boeing Coax Code | ITTC Code | ITTC Coax Contacts Supplied | |
|---|---|---|---|
| | | Plug Connector | Receptacle Connector |
| AA | Blank | No Coax Supplied | No Coax Supplied |
| AB | B | 349-0013-000 | 349-0014-000 |
| AC | C | 349-0015-000 | 349-0016-000 |
| AD | D | 349-0013-000<br>349-0017-000 | 349-0014-000<br>349-0002-000 |
| AE | E | 349-0015-000<br>349-0018-000 | 349-0016-000<br>349-0004-000 |
| AF | F | 349-0015-000<br>349-0017-000 | 349-0016-000<br>349-0002-000 |

**SHELL STYLE**

3 - Plug (rack side)

4 - Receptacle (box side)

**CONNECTOR MOUNTING MODIFIER**

00 - Standard design, .148 dia. holes

01 - With #6-32 ESNA (#12 NCFMA2-62) clinch nuts (see chart)

| Connector Size | Number of Clinch Nuts | |
|---|---|---|
| | Plug | Receptacle |
| 1 | 4 | 4 |
| 2 | 4 | 6 |
| 3 | 8 | 10 |

02 - Size 1 receptacle only - less 3 printed circuit board mounting lugs

03 - With #4-40 ESNA (#22 NCFMA2-40) clinch nuts (see chart)

08 - Size 2 and 3 plug and receptacle only - with #4-40 ESNA (#22 NCFMA2-40) clinch nuts (all mounting holes)

09 - Size 2 and 3 plug and receptacle only - with #6-32 ESNA (#12 NCFMA2-62) clinch nuts (all mounting holes)

16 - Same as - 00 mounting modification except with nickel finished shells .0008 - .0012 thick with EMI grounding spring for plug shells and supplied with non-environmental inserts.

17 - Same as - 00 mounting modification except with nickel finished shells .0008 - .0012 thick with EMI grounding spring for plug shells and supplied with environmental inserts not potted into shell.

23 - With floating eyelets (.048 min. radial float) 4 corner holes per connector.

Consult factory if other modifications are required

## How to Order (Continued)

**CONNECTOR LAYOUT DESCRIPTION** Note: All layouts with "OPEN" insert cavity are not supplied with an insulator. If a Blank insert is required please consult factory.
Three Digit Number Contained within the Shell Layout Indicates Total Number of Contacts Available (including Waveguide)

| Connector Layout | Shell Size | Shell Cavity Identification | | | | | | Ref. ARINC Characteristic | Connector Layout | Shell Size | Shell Cavity Identification | | | | | | Ref. ARINC Characteristic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | | | | A | B | C | D | E | F | |
| -005 | 1 | OPEN | OPEN | 5W2 | | | | | -T173 | 2 | 150 | 10T10 | 13W2 | | | | |
| -060 | 1 | OPEN | 60 | OPEN | | | | | 234 | 2 | 150 | 71W1 | 13W2 | | | | 709 |
| A060 | 1 | 60 | OPEN | OPEN | | | | | A234 | 2 | 71W1 | 150 | 13W2 | | | | 727 |
| -065 | 1 | OPEN | 60 | 5W2 | | | | | -246 | 2 | 120T2 | 120T2 | 6T6 | | | | |
| A065 | 1 | 60 | Open | 5W2 | | | | | -248 | 2 | 121 | 121 | 6T6 | | | | |
| -120 | 1 | 60 | 60 | OPEN | | | | | 250 | 2 | OPEN | 150 | 100 | | | | |
| -125 | 1 | 60 | 60 | 5W2 | | | | ● | 250A | 2 | 150 | BLANK | 100 | | | | |
| -013 | 2 | OPEN | OPEN | 13W2 | | | | | -251 | 2 | Waveguide | 150 | 100 | | | | |
| -017 | 2 | 2W2 | 2W2 | 13W2 | | | | | -300 | 2 | 150 | 150 | OPEN | | | | |
| -071 | 2 | OPEN | 71W1 | OPEN | | | | | -306 | 2 | 150 | 150 | 6T6 | | | | |
| A071 | 2 | 71W1 | OPEN | OPEN | | | | | -313 | 2 | 150 | 150 | 13W2 | | | | ● ● ● |
| -085 | 2 | Waveguide | 71W1 | 13W2 | | | | | -370 | 2 | 150 | 120T2 | 100 | | | | |
| A085 | 2 | 71W1 | Waveguide | 13W2 | | | | | -400 | 2 | 150 | 150 | 100 | | | | |
| 86M | 2 | 2W2 | 71W1A | 13W2 | | | | | -021 | 3 | 4W4 | 4W4 | 13W2 | BLANK | OPEN | OPEN | |
| -093 | 2 | 4W4 | 4W4 | 85 | | | | | -026 | 3 | OPEN | OPEN | 13W2 | OPEN | OPEN | 13W2 | |
| -100 | 2 | OPEN | OPEN | 100 | | | | | -113 | 3 | OPEN | OPEN | 100 | OPEN | OPEN | 13W2 | |
| -137 | 2 | 121 | 10T10 | 6T6 | | | | | -A113 | 3 | OPEN | OPEN | 13W2 | OPEN | OPEN | 100 | |
| -T141 | 2 | 120T2 | 10T10 | 13W2 | | | | | -114 | 3 | 4W4 | 4W4 | 4W4 | 4W4 | 13W2 | 85 | |
| -142 | 2 | 71W1 | 71W1 | OPEN | | | | | -284 | 3 | 71W1 | 71W1 | OPEN | 71W1 | 71W1 | OPEN | |
| -155 | 2 | 71W1 | 71W1 | 13W2 | | | | ● ● | -310 | 3 | 71W1 | 71W1 | 13W2 | 71W1 | 71W1 | 13W2 | |
| 155M | 2 | 71W1A | 71W1A | 13W2 | | | | | -330M | 3 | 2W1 | 2W2 | 13W2 | 150 | 150 | 13W2 | |
| V155M | 2 | 71W1B | 71W1A | 13W2 | | | | | -A330M | 3 | 150 | 150 | 13W2 | 2W2 | 2W2 | 13W2 | |
| 158M | 2 | 2W2 | 71W1A | 85 | | | | | -496 | 3 | 121 | 121 | 121 | 121 | 6T6 | 6T6 | |
| -A158M | 2 | 2W2 | 71W1B | 85 | | | | | -600 | 3 | 150 | 150 | OPEN | 150 | 150 | OPEN | |
| -163 | 2 | OPEN | 150 | 13W2 | | | | | -626 | 3 | 150 | 150 | 13W2 | 150 | 150 | 13W2 | ● ● ● ● |
| A163 | 2 | 150 | OPEN | 13W2 | | | | | -713 | 3 | 150 | 150 | 100 | 150 | 150 | 13W2 | |
| -164 | 2 | 150 | Waveguide | 13W2 | | | | | A713 | 3 | 150 | 150 | 13W2 | 150 | 150 | 100 | |
| A164 | 2 | Waveguide | 150 | 13W2 | | | | 708 | -734 | 3 | 150 | 150 | 100 | 150 | 150 | 3W | |
| 165M | 2 | 150 | 2W2 | 13W2 | | | | | -764 | 3 | 150 | 150 | 64 | 150 | 150 | 100 | |
| -A165M | 2 | 2W2 | 150 | 13W2 | | | | | -800 | 3 | 150 | 150 | 100 | 150 | 150 | 100 | |
| -167 | 2 | 4W4 | 150 | 13W2 | | | | | -269M | 3 | 2W2 | 2W2 | 13W2 | 2W2 | 150 | 100 | 732 |
| 173M | 2 | 2W2 | 71W1B | 100 | | | | | 271C | 3 | 4W4 | 4W4 | 13W2 | BLANK | 150 | 100 | |
| | | | | | | | | | 271M | 3 | 2W2 | 2W2 | 13W2 | 4W4 | 150 | 100 | |
| | | | | | | | | | -326 | 3 | OPEN | 150 | 13W2 | OPEN | 150 | 13W2 | |

**NOTE. ANY OTHER COMBINATION OF INSERTS WITHIN A SPECIFIC SHELL IS AVAILABLE UPON REQUEST**

● Layout included in the following ARINC configurations 702, 710, 711, 712, 714, 715, 716, 723.
● ● Layout included in the following ARINC configurations 707, 718 & 730.
● ● ● Layout included in the following ARINC configurations 701, 702, 703, 704, 705, 706, 724, 725.
● ● ● ● Layout included in the following ARINC configurations 701, 717, 726, 729.

**POLARIZING POSITION**

01 thru 99 (per ARINC 600)
Blank-Polarizing posts or keys not installed but supplied with connector

**MODIFIER (Contact, Finish, Material)**

Blank - Rear release, crimp, signal and power contacts supplied with connector (when applicable)

FO - Contacts not supplied with connector (FO not stamped on connector)

FOO - Less contacts and waveguide (FOO not stamped on connector)

SA - Front release .025(0.63) D. x .150 (3.81) solder post and crimp, rear release power contacts (when applicable) supplied with connector

SB - Front release .025(0.63) D. x .250 (6.35) solder post and crimp, rear release power contacts (when applicable) supplied with connector

SC - Front release .025(0.63) D. x .375 (9.53) solder post and crimp, rear release power contacts (when applicable) supplied with connector

SD - Front release .025(0.63) D. x .500 (12.7) solder post and crimp, rear release power contacts (when applicable) supplied with connector

WA - Front release .025(0.63) Sq. x .250 (6.35) (1 wrap) wrap post and crimp, rear release power contacts (when applicable) supplied with connector

WB - Front release .025(0.63 Sq. x .375 (9.53) (2 wraps) wrap post and crimp, rear relase power contacts (when applicable) supplied with connector

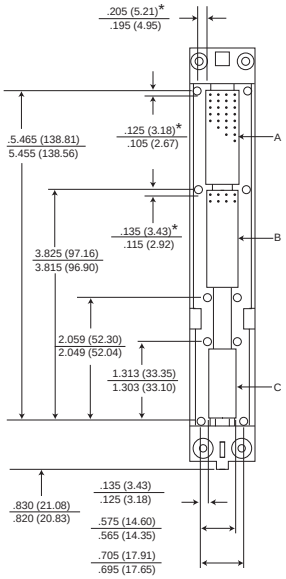
WC - Front release .025(0.63) Sq. x 500 (12.7) (3 wraps) wrap post and crimp, rear release power contacts (when applicable) supplied with connector

WD - Front release .025 (0.64) Sq. x 641 (16.28) (3 wraps) wrap post and crimp, rear release power contacts (when applicable) supplied with connector

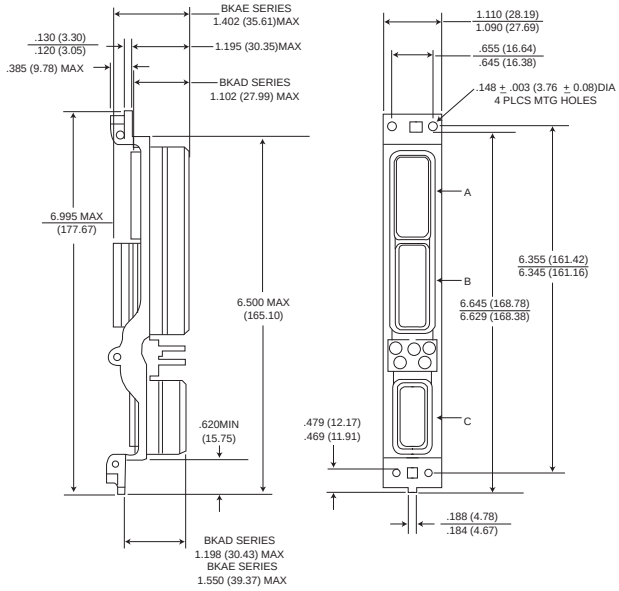
NOTE: COAXIAL CONTACTS TO BE ORDERED SEPARATELY

## Shell Dimensions - Size 1

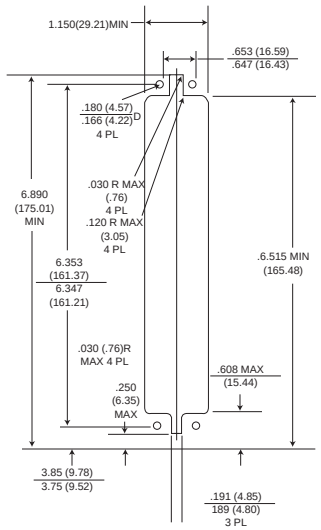
**Plug**




**Retainer Plate**




**Size 1 Plug**

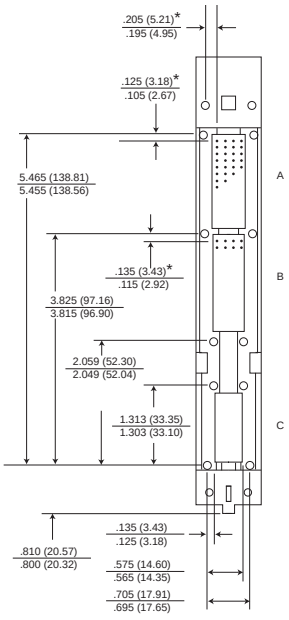



**Panel Cutout**

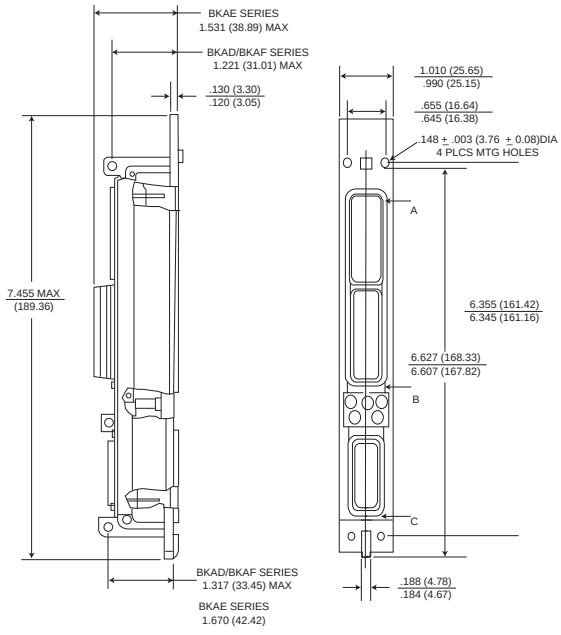
*** This dimension indicates distance from centerline of retaining screw to the centerline of first contact cavity.**

For further information, refer to ARINC 600 specification or consult factory.

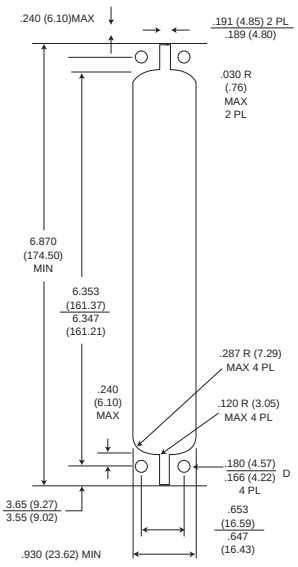
**Receptacle**




**Retainer Plate**




**Size 1 Receptacle**



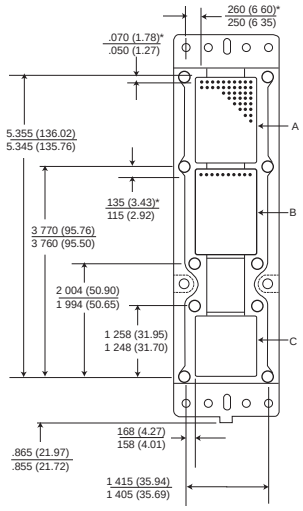

**Panel Cutout**

***This dimension indicates distance from centerline of retaining screw to the centerline of first contact cavity.**

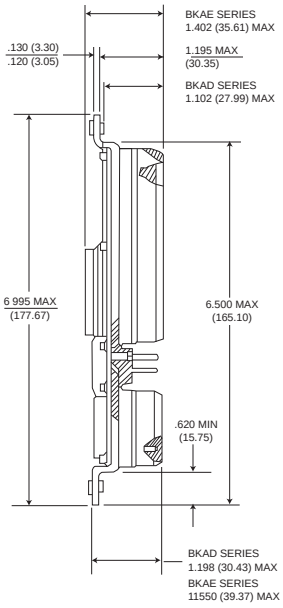
For further information, refer to ARINC 600 specification or consult factory.

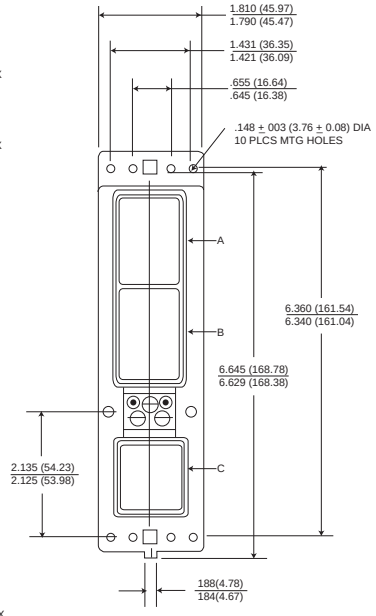
## Shell Dimensions - Size 2

**Plug**

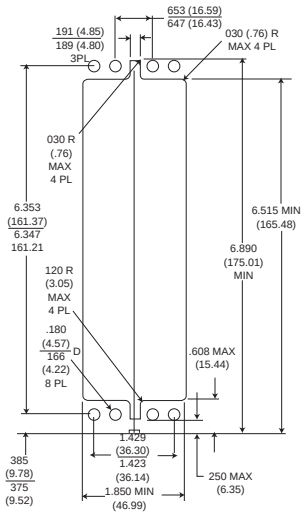



**Retainer Plate**




**Size 2 Plug**

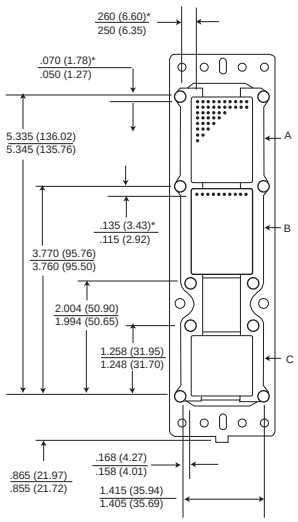



**Panel Cutout**

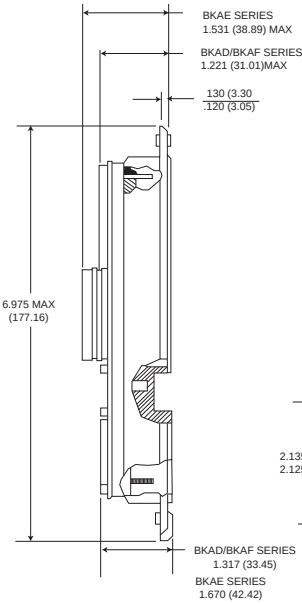
*** This dimension indicates distance from centerline of retaining screw to the centerline of first contact cavity.**

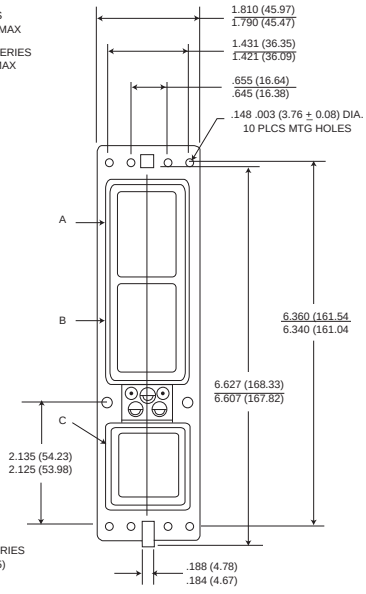
For further information, refer to ARINC 600 specification or consult factory.

**Receptacle**

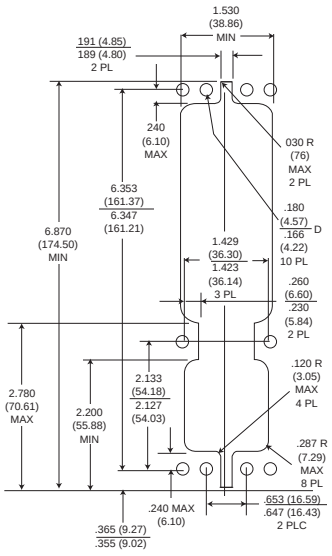



**Retainer Plate**




**Size 2 Receptacle**



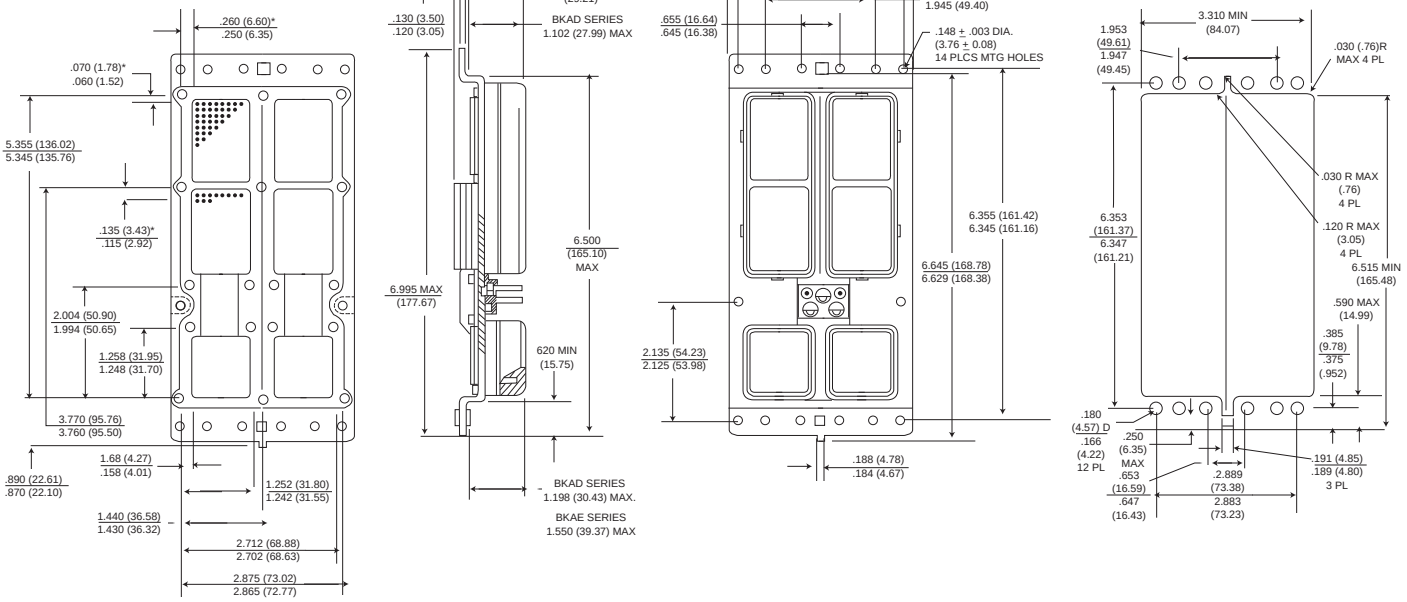

**Panel Cutout**

***This dimension indicates distance from centerline of retaining screw to the centerline of first contact cavity.**

For further information, refer to ARINC 600 specification or consult factory.

## Shell Dimensions - Size 3

**Plug**

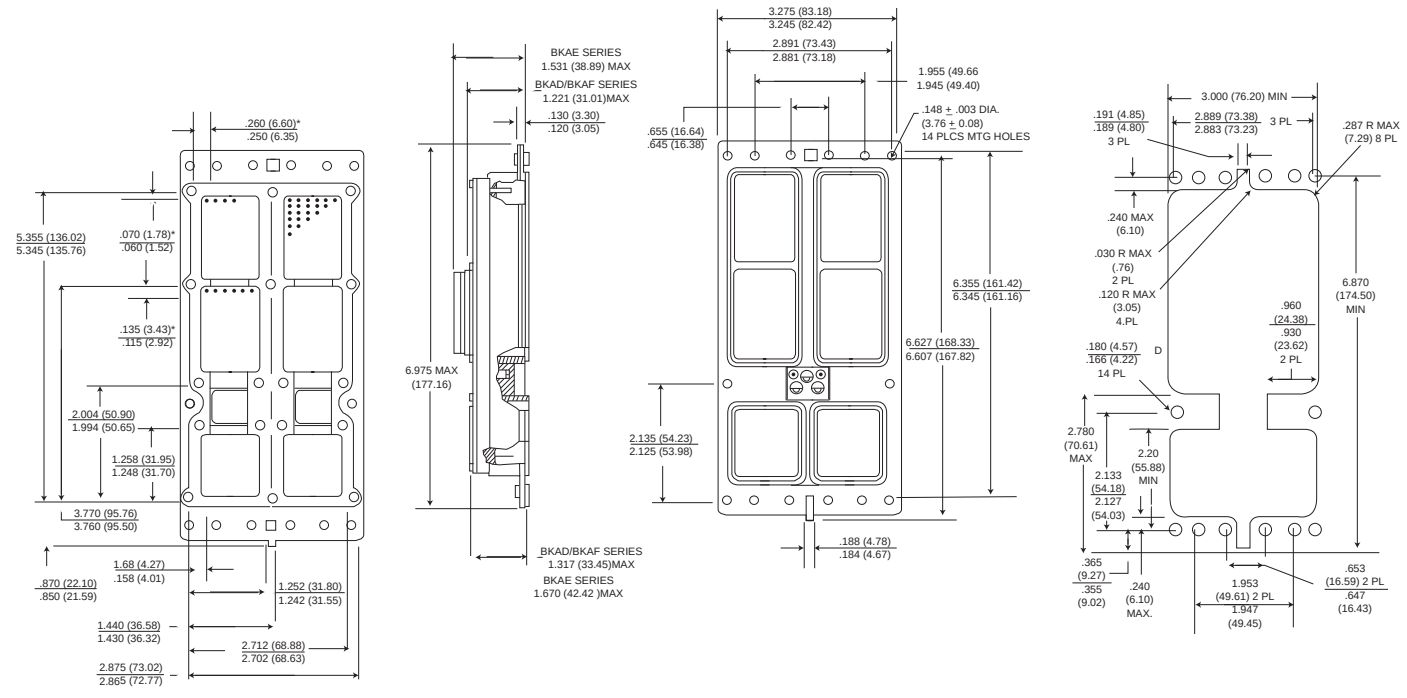



**Retainer Plate** **Size 3 Plug** **Panel Cutout**

*** This dimension indicates distance form centerline of retaining screw to the centerline of first contact cavity.**

For furter information, refer to ARINC 600 specification or consult factory.

**Receptacle**




**Retainer Plate** **Size 3 Plug** **Panel Cutout**

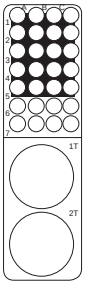
*** This dimension indicates distance form centerline of retaining screw to the centerline of first contact cavity.**

For furter information, refer to ARINC 600 specification or consult factory.

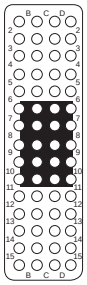
## Contact Arrangements - Shell Size 1

**BKAD/BKAE (Plug Rear face shown)**

**Shell Cavity A or B**

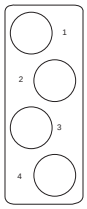


30T2
28 #22
2 #8 TWINAX/COAX
(#8 Grounded to Shell)

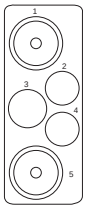


60
60 #22

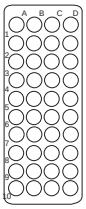
**Shell Cavity C**



4
4 #12



5W2
1 #12
2 #16
2 #5 COAX

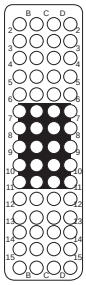


40
40 #22

**REAR SURFACE WHITE ON BLUE TO INDICATE REAR RELEASE REAR REMOVAL CONTACTS**

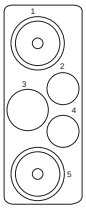
**BKAF - Available Receptacle Shell Only (Front Release)**

**Shell Cavity A or B**



60
60 #22

**Shell Cavity C**



5W2
1 #12
2 #16
2 #5 COAX

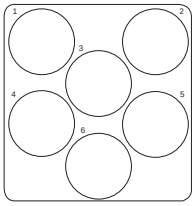
**ENGAGING END SURFACE WHITE ON RED TO INDICATE FRONT RELEASE FRONT REMOVAL CONTACTS**

(For Contact Cavity Location and Contact Cavity Identification refer to ARINC 600 or consult factory)

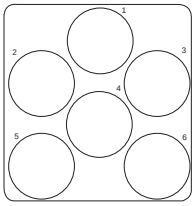
## Contact Arrangements - Shell Sizes 2 and 3

**BKAD/BKAE (Plug Rear face shown)**

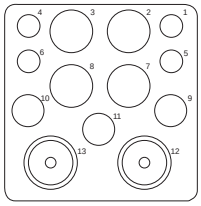
**Shell Cavity C or F**



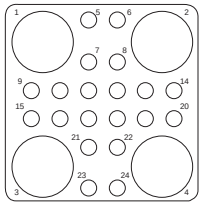
6**
6 #8



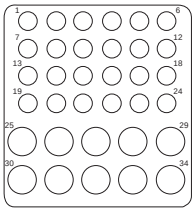
6T6**
6 #8
(Metallic Insert)



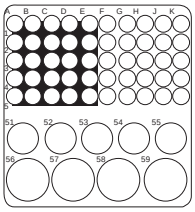
13W2
4 #20, 4 #12, 3 #16
2 #5 COAX



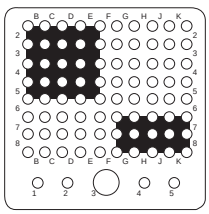
24T4**
20 #20, 4 #8



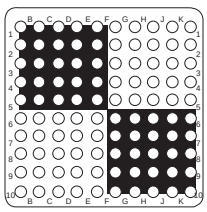
34**
24 #20, 10 #18



59**
50 #22, 5 #16, 4 #12



85
80 #22, 4 #20, 1 #16



100
100 #22

****Pending ARINC release.**

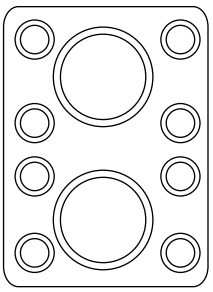
NOTE: In layouts using #22 contacts mixed with any other contact size (20HD, 16, 12), the size #22 contact type (pin or socket) determines the insulator as a pin insert or a socket insert.

**REAR SURFACE WHITE ON BLUE TO INDICATE REAR RELEASE, REAR REMOVAL CONTACTS FOR INSERTS CONTAINING STANDARD SIGNAL & POWER CONTACTS**

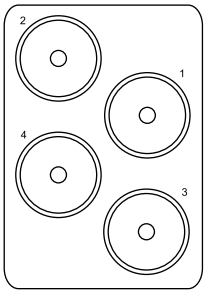
(For Contact Cavity Location and Contact Cavity Identification refer to ARINC 600 or consult factory)

## Contact Arrangements - Shell Sizes 2 and 3

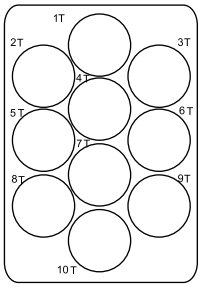
**BKAD/BKAE (Plug Rear face shown)**
**Shell Cavity**
**A,B,D,E**



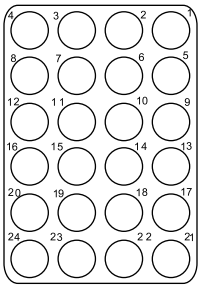
**2W2**
**2 #1 COAX**



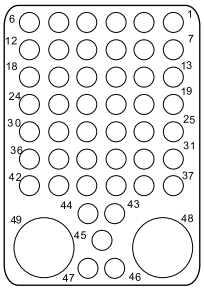

**4W4**
**4 Modified**
**#1 COAX**
**(Metallic Insert)**



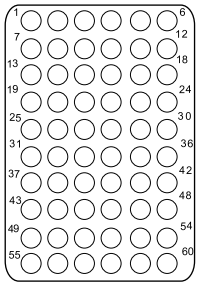

**10T10****
**10 #8 TRIAX/COAX**
**(#8 Grounded to Shell)**
**(Metallic Insert)**



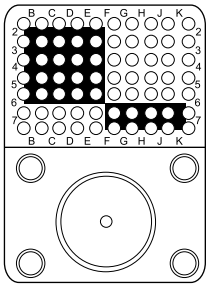
**24****
**24 #12**



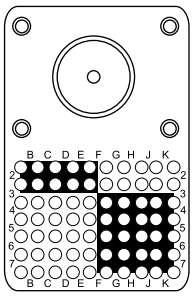
**49T2****
**47 #20**
**2 #8**



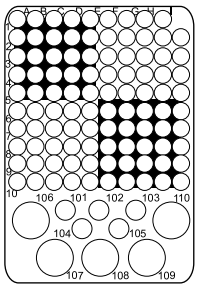
**60****
**60 #20**



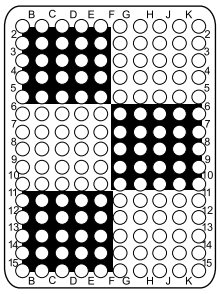

**71W1**
**70 #22**
**1 #1 COAX**



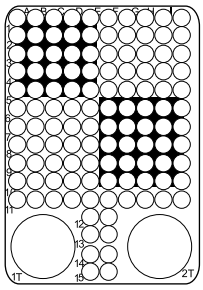

**71W1B**
**70 #22**
**1 #1 COAX**



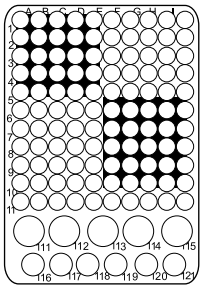
**110****
**100 #22**
**5 #12 & 5 #20**




**150**
**150 #22**



**120T2 ****
**118 #22**
**2 #8 TWINAX/COAX**
**(#8 Grounded to Shell)**



**121****
**110 #22**
**5 #16**
**6 #20**

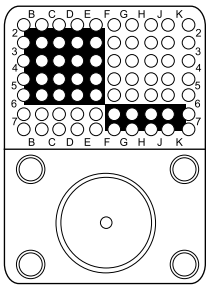
** Pending ARINC release.

**REAR SURFACE WHITE ON BLUE TO INDICATE REAR RELEASE. REAR REMOVAL CONTACTS FOR INSERTS CONTAINING STANDARD SIGNAL & POWER CONTACTS**

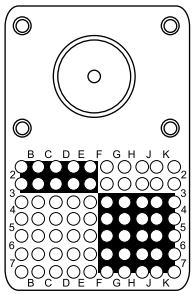
(For Contact Cavity Location and Contact Cavity Identification refer to ARINC 600 or consult factory)

## Contact Arrangements - Shell Sizes 2 and 3

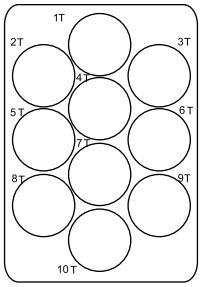
**BKAF - Available Receptacle Shell ONLY**
**(Front Release)**
**SHELL CAVITY**
**A, B, D, E,**



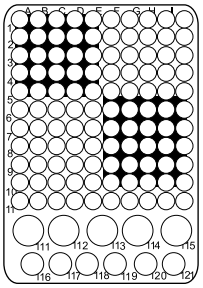
**71W1**
**70 #22**



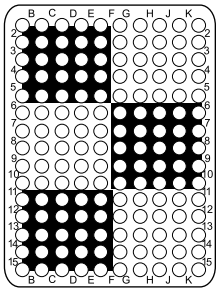
**71W1B**
**70 #22**




**10T10****
**10 #8**



**121F****
**110 #22**
**6 #20**
**5 #16**

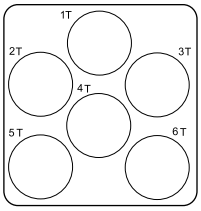


**150**
**150 #22**

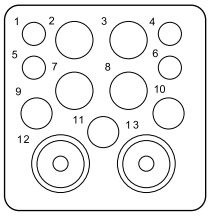
**ENGAGING END SURFACE WHITE ON RED TO INDICATE FRONT RELEASE FRONT REMOVAL CONTACTS FOR INSERTS CONTAINING STANDARD SIGNAL & POWER CONTACTS**

---

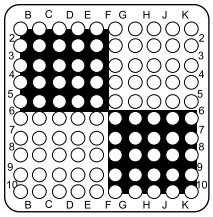
**BKAF - Available Receptacle Shell ONLY**
**(Front Release)**
**SHELL CAVITY C, F**




**6T6****
**6 #8**



**13W2**
**4 #20**
**3 #16**
**4 #12**
**2 #5 COAX**



**100**
**100 #22**

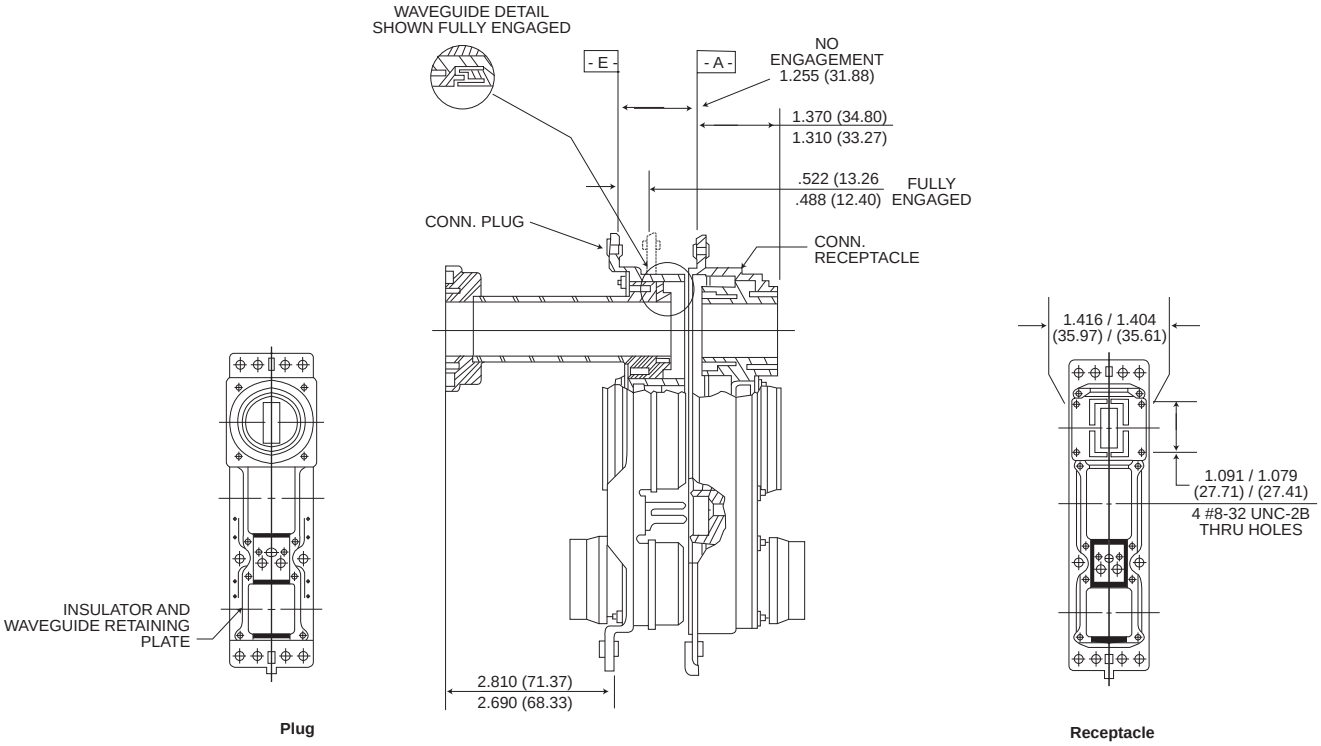
** Pending ARINC release.

**NOTE #22 CONTACTS ARE SOCKETS, 20HD,16, 12 ARE PIN CONTACTS.**

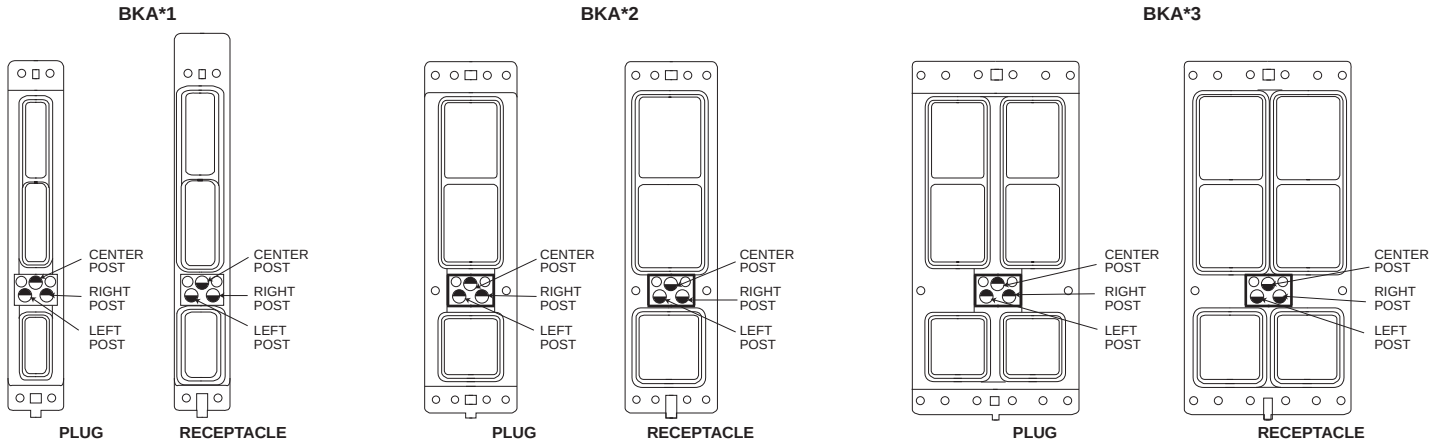
**ENGAGING END SURFACE WHITE ON RED TO INDICATE FRONT RELEASE, FRONT REMOVAL CONTACTS FOR INSERTS CONTAINING STANDARD SIGNAL & POWER CONTACTS**

(For Contacts Cavity Location and Contact Cavity Identification refer to ARINC 600 or Consult Factory)

## Waveguide Connections




## Polarization (Engaging End)



## Polarizing Positions

POST
Kit P/N 320-1067-003

KEY
Kit P/N 320-1067-000

**Plug Shell**

| Position | Left Post | Center Post | Right Post | Position | Left Post | Center Post | Right Post | Position | Left Post | Center Post | Right Post |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 1 | 1 | 1 | 76 | 4 | 3 | 1 | 151 | 1 | 5 | 6 |
| 02 | 2 | 1 | 1 | 77 | 5 | 3 | 1 | 152 | 2 | 5 | 6 |
| 03 | 3 | 1 | 1 | 78 | 6 | 3 | 1 | 153 | 3 | 5 | 6 |
| 04 | 4 | 1 | 1 | 79 | 1 | 3 | 6 | 154 | 4 | 5 | 6 |
| 05 | 5 | 1 | 1 | 80 | 2 | 3 | 6 | 155 | 5 | 5 | 6 |
| 06 | 6 | 1 | 1 | 81 | 3 | 3 | 6 | 156 | 6 | 5 | 6 |
| 07 | 1 | 1 | 6 | 82 | 4 | 3 | 6 | 157 | 1 | 5 | 5 |
| 08 | 2 | 1 | 6 | 83 | 5 | 3 | 6 | 158 | 2 | 5 | 5 |
| 09 | 3 | 1 | 6 | 84 | 6 | 3 | 6 | 159 | 3 | 5 | 5 |
| 10 | 4 | 1 | 6 | 85 | 1 | 3 | 5 | 160 | 4 | 5 | 5 |
| 11 | 5 | 1 | 6 | 86 | 2 | 3 | 5 | 161 | 5 | 5 | 5 |
| 12 | 6 | 1 | 6 | 87 | 3 | 3 | 5 | 162 | 6 | 5 | 5 |
| 13 | 1 | 1 | 5 | 88 | 4 | 3 | 5 | 163 | 1 | 5 | 4 |
| 14 | 2 | 1 | 5 | 89 | 5 | 3 | 5 | 164 | 2 | 5 | 4 |
| 15 | 3 | 1 | 5 | 90 | 6 | 3 | 5 | 165 | 3 | 5 | 4 |
| 16 | 4 | 1 | 5 | 91 | 1 | 3 | 4 | 166 | 4 | 5 | 4 |
| 17 | 5 | 1 | 5 | 92 | 2 | 3 | 4 | 167 | 5 | 5 | 4 |
| 18 | 6 | 1 | 5 | 93 | 3 | 3 | 4 | 168 | 6 | 5 | 4 |
| 19 | 1 | 1 | 4 | 94 | 4 | 3 | 4 | 169 | 1 | 5 | 3 |
| 20 | 2 | 1 | 4 | 95 | 5 | 3 | 4 | 170 | 2 | 5 | 3 |
| 21 | 3 | 1 | 4 | 96 | 6 | 3 | 4 | 171 | 3 | 5 | 3 |
| 22 | 4 | 1 | 4 | 97 | 1 | 3 | 3 | 172 | 4 | 5 | 3 |
| 23 | 5 | 1 | 4 | 98 | 2 | 3 | 3 | 173 | 5 | 5 | 3 |
| 24 | 6 | 1 | 4 | 99 | 3 | 3 | 3 | 174 | 6 | 5 | 3 |
| 25 | 1 | 1 | 3 | 100 | 4 | 3 | 3 | 175 | 1 | 5 | 2 |
| 26 | 2 | 1 | 3 | 101 | 5 | 3 | 3 | 176 | 2 | 5 | 2 |
| 27 | 3 | 1 | 3 | 102 | 6 | 3 | 3 | 177 | 3 | 5 | 2 |
| 28 | 4 | 1 | 3 | 103 | 1 | 3 | 2 | 178 | 4 | 5 | 2 |
| 29 | 5 | 1 | 3 | 104 | 2 | 3 | 2 | 179 | 5 | 5 | 2 |
| 30 | 6 | 1 | 3 | 105 | 3 | 3 | 2 | 180 | 6 | 5 | 2 |
| 31 | 1 | 1 | 2 | 106 | 4 | 3 | 2 | 181 | 1 | 6 | 1 |
| 32 | 2 | 1 | 2 | 107 | 5 | 3 | 2 | 182 | 2 | 6 | 1 |
| 33 | 3 | 1 | 2 | 108 | 6 | 3 | 2 | 183 | 3 | 6 | 1 |
| 34 | 4 | 1 | 2 | 109 | 1 | 4 | 1 | 184 | 4 | 6 | 1 |
| 35 | 5 | 1 | 2 | 110 | 2 | 4 | 1 | 185 | 5 | 6 | 1 |
| 36 | 6 | 1 | 2 | 111 | 3 | 4 | 1 | 186 | 6 | 6 | 1 |
| 37 | 1 | 2 | 1 | 112 | 4 | 4 | 1 | 187 | 1 | 6 | 6 |
| 38 | 2 | 2 | 1 | 113 | 5 | 4 | 1 | 188 | 2 | 6 | 6 |
| 39 | 3 | 2 | 1 | 114 | 6 | 4 | 1 | 189 | 3 | 6 | 6 |
| 40 | 4 | 2 | 1 | 115 | 1 | 4 | 6 | 190 | 4 | 6 | 6 |
| 41 | 5 | 2 | 1 | 116 | 2 | 4 | 6 | 191 | 5 | 6 | 6 |
| 42 | 6 | 2 | 1 | 117 | 3 | 4 | 6 | 192 | 6 | 6 | 6 |
| 43 | 1 | 2 | 6 | 118 | 4 | 4 | 6 | 193 | 1 | 6 | 5 |
| 44 | 2 | 2 | 6 | 119 | 5 | 4 | 6 | 194 | 2 | 6 | 5 |
| 45 | 3 | 2 | 6 | 120 | 6 | 4 | 6 | 195 | 3 | 6 | 5 |
| 46 | 4 | 2 | 6 | 121 | 1 | 4 | 5 | 196 | 4 | 6 | 5 |
| 47 | 5 | 2 | 6 | 122 | 2 | 4 | 5 | 197 | 5 | 6 | 5 |
| 48 | 6 | 2 | 6 | 123 | 3 | 4 | 5 | 198 | 6 | 6 | 5 |
| 49 | 1 | 2 | 5 | 124 | 4 | 4 | 5 | 199 | 1 | 6 | 4 |
| 50 | 2 | 2 | 5 | 125 | 5 | 4 | 5 | 200 | 2 | 6 | 4 |
| 51 | 3 | 2 | 5 | 126 | 6 | 4 | 5 | 201 | 3 | 6 | 4 |
| 52 | 4 | 2 | 5 | 127 | 1 | 4 | 4 | 202 | 4 | 6 | 4 |
| 53 | 5 | 2 | 5 | 128 | 2 | 4 | 4 | 203 | 5 | 6 | 4 |
| 54 | 6 | 2 | 5 | 129 | 3 | 4 | 4 | 204 | 6 | 6 | 4 |
| 55 | 1 | 2 | 4 | 130 | 4 | 4 | 4 | 205 | 1 | 6 | 3 |
| 56 | 2 | 2 | 4 | 131 | 5 | 4 | 4 | 206 | 2 | 6 | 3 |
| 57 | 3 | 2 | 4 | 132 | 6 | 4 | 4 | 207 | 3 | 6 | 3 |
| 58 | 4 | 2 | 4 | 133 | 1 | 4 | 3 | 208 | 4 | 6 | 3 |
| 59 | 5 | 2 | 4 | 134 | 2 | 4 | 3 | 209 | 5 | 6 | 3 |
| 60 | 6 | 2 | 4 | 135 | 3 | 4 | 3 | 210 | 6 | 6 | 3 |
| 61 | 1 | 2 | 3 | 136 | 4 | 4 | 3 | 211 | 1 | 6 | 2 |
| 62 | 2 | 2 | 3 | 137 | 5 | 4 | 3 | 212 | 2 | 6 | 2 |
| 63 | 3 | 2 | 3 | 138 | 6 | 4 | 3 | 213 | 3 | 6 | 2 |
| 64 | 4 | 2 | 3 | 139 | 1 | 4 | 2 | 214 | 4 | 6 | 2 |
| 65 | 5 | 2 | 3 | 140 | 2 | 4 | 2 | 215 | 5 | 6 | 2 |
| 66 | 6 | 2 | 3 | 141 | 3 | 4 | 2 | 216 | 6 | 6 | 2 |
| 67 | 1 | 2 | 2 | 142 | 4 | 4 | 2 | | | | |
| 68 | 2 | 2 | 2 | 143 | 5 | 4 | 2 | | | | |
| 69 | 3 | 2 | 2 | 144 | 6 | 4 | 2 | | | | |
| 70 | 4 | 2 | 2 | 145 | 1 | 5 | 1 | | | | |
| 71 | 5 | 2 | 2 | 146 | 2 | 5 | 1 | | | | |
| 72 | 6 | 2 | 2 | 147 | 3 | 5 | 1 | | | | |
| 73 | 1 | 3 | 1 | 148 | 4 | 5 | 1 | | | | |
| 74 | 2 | 3 | 1 | 149 | 5 | 5 | 1 | | | | |
| 75 | 3 | 3 | 1 | 150 | 6 | 5 | 1 | | | | |

**Receptacle Shell**

| Position | Left Post | Center Post | Right Post | Position | Left Post | Center Post | Right Post | Position | Left Post | Center Post | Right Post |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 4 | 4 | 4 | 76 | 4 | 2 | 1 | 151 | 5 | 6 | 4 |
| 02 | 4 | 4 | 3 | 77 | 4 | 2 | 6 | 152 | 5 | 6 | 3 |
| 03 | 4 | 4 | 2 | 78 | 4 | 2 | 5 | 153 | 5 | 6 | 2 |
| 04 | 4 | 4 | 1 | 79 | 5 | 2 | 4 | 154 | 5 | 6 | 1 |
| 05 | 4 | 4 | 6 | 80 | 5 | 2 | 3 | 155 | 5 | 6 | 6 |
| 06 | 4 | 4 | 5 | 81 | 5 | 2 | 2 | 156 | 5 | 6 | 5 |
| 07 | 5 | 4 | 4 | 82 | 5 | 2 | 1 | 157 | 6 | 6 | 4 |
| 08 | 5 | 4 | 3 | 83 | 5 | 2 | 6 | 158 | 6 | 6 | 3 |
| 09 | 5 | 4 | 2 | 84 | 5 | 2 | 5 | 159 | 6 | 6 | 2 |
| 10 | 5 | 4 | 1 | 85 | 6 | 2 | 4 | 160 | 6 | 6 | 1 |
| 11 | 5 | 4 | 6 | 86 | 6 | 2 | 3 | 161 | 6 | 6 | 6 |
| 12 | 5 | 4 | 5 | 87 | 6 | 2 | 2 | 162 | 6 | 6 | 5 |
| 13 | 6 | 4 | 4 | 88 | 6 | 2 | 1 | 163 | 1 | 6 | 4 |
| 14 | 6 | 4 | 3 | 89 | 6 | 2 | 6 | 164 | 1 | 6 | 3 |
| 15 | 6 | 4 | 2 | 90 | 6 | 2 | 5 | 165 | 1 | 6 | 2 |
| 16 | 6 | 4 | 1 | 91 | 1 | 2 | 4 | 166 | 1 | 6 | 1 |
| 17 | 6 | 4 | 6 | 92 | 1 | 2 | 3 | 167 | 1 | 6 | 6 |
| 18 | 6 | 4 | 5 | 93 | 1 | 2 | 2 | 168 | 1 | 6 | 5 |
| 19 | 1 | 4 | 4 | 94 | 1 | 2 | 1 | 169 | 2 | 6 | 4 |
| 20 | 1 | 4 | 3 | 95 | 1 | 2 | 6 | 170 | 2 | 6 | 3 |
| 21 | 1 | 4 | 2 | 96 | 1 | 2 | 5 | 171 | 2 | 6 | 2 |
| 22 | 1 | 4 | 1 | 97 | 2 | 2 | 4 | 172 | 2 | 6 | 1 |
| 23 | 1 | 4 | 6 | 98 | 2 | 2 | 3 | 173 | 2 | 6 | 6 |
| 24 | 1 | 4 | 5 | 99 | 2 | 2 | 2 | 174 | 2 | 6 | 5 |
| 25 | 2 | 4 | 4 | 100 | 2 | 2 | 1 | 175 | 3 | 6 | 4 |
| 26 | 2 | 4 | 3 | 101 | 2 | 2 | 6 | 176 | 3 | 6 | 3 |
| 27 | 2 | 4 | 2 | 102 | 2 | 2 | 5 | 177 | 3 | 6 | 2 |
| 28 | 2 | 4 | 1 | 103 | 3 | 2 | 4 | 178 | 3 | 6 | 1 |
| 29 | 2 | 4 | 6 | 104 | 3 | 2 | 3 | 179 | 3 | 6 | 6 |
| 30 | 2 | 4 | 5 | 105 | 3 | 2 | 2 | 180 | 3 | 6 | 5 |
| 31 | 3 | 4 | 4 | 106 | 3 | 2 | 1 | 181 | 4 | 5 | 4 |
| 32 | 3 | 4 | 3 | 107 | 3 | 2 | 6 | 182 | 4 | 5 | 3 |
| 33 | 3 | 4 | 2 | 108 | 3 | 2 | 5 | 183 | 4 | 5 | 2 |
| 34 | 3 | 4 | 1 | 109 | 4 | 1 | 4 | 184 | 4 | 5 | 1 |
| 35 | 3 | 4 | 6 | 110 | 4 | 1 | 3 | 185 | 4 | 5 | 6 |
| 36 | 3 | 4 | 5 | 111 | 4 | 1 | 2 | 186 | 4 | 5 | 5 |
| 37 | 4 | 3 | 4 | 112 | 4 | 1 | 1 | 187 | 5 | 5 | 4 |
| 38 | 4 | 3 | 3 | 113 | 4 | 1 | 6 | 188 | 5 | 5 | 3 |
| 39 | 4 | 3 | 2 | 114 | 4 | 1 | 5 | 189 | 5 | 5 | 2 |
| 40 | 4 | 3 | 1 | 115 | 5 | 1 | 4 | 190 | 5 | 5 | 1 |
| 41 | 4 | 3 | 6 | 116 | 5 | 1 | 3 | 191 | 5 | 5 | 6 |
| 42 | 4 | 3 | 5 | 117 | 5 | 1 | 2 | 192 | 5 | 5 | 5 |
| 43 | 5 | 3 | 4 | 118 | 5 | 1 | 1 | 193 | 6 | 5 | 4 |
| 44 | 5 | 3 | 3 | 119 | 5 | 1 | 6 | 194 | 6 | 5 | 3 |
| 45 | 5 | 3 | 2 | 120 | 5 | 1 | 5 | 195 | 6 | 5 | 2 |
| 46 | 5 | 3 | 1 | 121 | 6 | 1 | 4 | 196 | 6 | 5 | 1 |
| 47 | 5 | 3 | 6 | 122 | 6 | 1 | 3 | 197 | 6 | 5 | 6 |
| 48 | 5 | 3 | 5 | 123 | 6 | 1 | 2 | 198 | 6 | 5 | 5 |
| 49 | 6 | 3 | 4 | 124 | 6 | 1 | 1 | 199 | 1 | 5 | 4 |
| 50 | 6 | 3 | 3 | 125 | 6 | 1 | 6 | 200 | 1 | 5 | 3 |
| 51 | 6 | 3 | 2 | 126 | 6 | 1 | 5 | 201 | 1 | 5 | 2 |
| 52 | 6 | 3 | 1 | 127 | 1 | 1 | 4 | 202 | 1 | 5 | 1 |
| 53 | 6 | 3 | 6 | 128 | 1 | 1 | 3 | 203 | 1 | 5 | 6 |
| 54 | 6 | 3 | 5 | 129 | 1 | 1 | 2 | 204 | 1 | 5 | 5 |
| 55 | 1 | 3 | 4 | 130 | 1 | 1 | 1 | 205 | 2 | 5 | 4 |
| 56 | 1 | 3 | 3 | 131 | 1 | 1 | 6 | 206 | 2 | 5 | 3 |
| 57 | 1 | 3 | 2 | 132 | 1 | 1 | 5 | 207 | 2 | 5 | 2 |
| 58 | 1 | 3 | 1 | 133 | 2 | 1 | 4 | 208 | 2 | 5 | 1 |
| 59 | 1 | 3 | 6 | 134 | 2 | 1 | 3 | 209 | 2 | 5 | 6 |
| 60 | 1 | 3 | 5 | 135 | 2 | 1 | 2 | 210 | 2 | 5 | 5 |
| 61 | 2 | 3 | 4 | 136 | 2 | 1 | 1 | 211 | 3 | 5 | 4 |
| 62 | 2 | 3 | 3 | 137 | 2 | 1 | 6 | 212 | 3 | 5 | 3 |
| 63 | 2 | 3 | 2 | 138 | 2 | 1 | 5 | 213 | 3 | 5 | 2 |
| 64 | 2 | 3 | 1 | 139 | 3 | 1 | 4 | 214 | 3 | 5 | 1 |
| 65 | 2 | 3 | 6 | 140 | 3 | 1 | 3 | 215 | 3 | 5 | 6 |
| 66 | 2 | 3 | 5 | 141 | 3 | 1 | 2 | 216 | 3 | 5 | 5 |
| 67 | 3 | 3 | 4 | 142 | 3 | 1 | 1 | | | | |
| 68 | 3 | 3 | 3 | 143 | 3 | 1 | 6 | | | | |
| 69 | 3 | 3 | 2 | 144 | 3 | 1 | 5 | | | | |
| 70 | 3 | 3 | 1 | 145 | 4 | 6 | 4 | | | | |
| 71 | 3 | 3 | 6 | 146 | 4 | 6 | 3 | | | | |
| 72 | 3 | 3 | 5 | 147 | 4 | 6 | 2 | | | | |
| 73 | 4 | 2 | 4 | 148 | 4 | 6 | 1 | | | | |
| 74 | 4 | 2 | 3 | 149 | 4 | 6 | 6 | | | | |
| 75 | 4 | 2 | 2 | 150 | 4 | 6 | 5 | | | | |

Dark area represents post

## Contact and Termination Tooling Data

### BKA* (LIF) Crimp Contacts

| Contact Size and Part Numbers | | | Crimp Tooling | | | | | Insertion/Extraction Tooling | | | | Wire Size | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Part Numbers | | Tool P/N | | Se-lec-tor# | Locator P/N | | MIL Spec. | ITT Cannon | | | AWG | Insul Dia. Max | Strip Length |
| Size | Pin | Socket | MIL Spec. | ITT Cannon | | Mil Spec. | ITT Cannon | | Insertion | Extraction | Ins./Ext. | | | |
| 2222 | Used in Plug 030-2259-000 | Used in Recep. 031-1287-000 | M22520 /2-01 | 995-0001-584 | 3 3 4 | M22520 /2-23 | 995-0002-015 | M81969 /1-01 | CIT-DPXMA-22-1 Metal 070256-0000 | CET-DPXMA-22 Metal 070317-0000 | 980-0004-804 Metal Tip | 26 24 22 | .054 (1.4) | .130/.110 (3.3)/(2.8) |
| 2020HD | Used in Recep 030-2273-000 | Used in Plug 031-1302-000 | M22520 /2-01 | 995-0001-584 | 6 7 | M22520 /2-08 | 995-0001-604 | M81969 /1-02 | - | - | 980-0004-805 Metal Tip | 22 20 | .071 (1.8) | .167/.147 (4.2)/(3.7) |
| 1616 | Used in Recep 030-2280-000 | Used in Plug 031-1303-000 | M22520 /1-01 | 995-0001-585 | 4 5 6 | M22520 /1-02 | 995-0001-736 | M81969 /1-03 | - | CET 16-9 Plastic | 980-0004-806 Metal Tip | 20 18 16 | .103 (2.6) | .207/.230 (6.9)/(5.8) |
| 1212 | Used in Recep 030-2286-000 | Used in Plug 031-1308-000 | M22520 /1-01 | 995-0001-585 | 7 8 | M22520 /1-11 | 995-0002-027 | M81969 /14-04 | - | CET 12-4 Plastic | CIET-12 Plastic | 14 12 | .135 (3.4) | .270/.230 (6.9)/(5.8) |

### BKA* Thermocouple Contacts

| Contact Size and Part Numbers | | | Crimp Tooling | | | | | Insertion/Extraction Tooling | | | | Wire Size | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Part Number | | Tool P/N | | Se-lec-tor# | Locator P/N | | MIL Spec. | ITT Cannon | | | AWG | Insul Dia. Max | Strip Length |
| Size | Pin | Socket | MIL Spec. | ITT Cannon | | Mil Spec. | ITT Cannon | | Insertion | Extraction | Ins./Ext. | | | |
| 2222 Alumel | Used in Plug 030-1975-009 | Used in Recep. 031-1113-009 | M22520 /2-01 | 995-0001 584 | 3 3 4 | M22520 /2-23 | 995-0002-015 | M81969 /1-01 | CIT-DPXMA-22-1 Metal 070256-0000 | CET-DPXMA-22 Metal 070317-0000 | 980-0004-804 Metal Tip | 26 24 22 | .054 (1.4) | .130/.110 (3.3)/(2.8) |
| 2222 Chromel | Used in Plug 030-1975-010 | Used in Recep. 031-1113-010 | | | | | | | | | | | | |

### BKAF-ARINC 600 Size 22 Wrap Post Socket Contacts With .025(6.35) Square Wire-Wrappable Tails-Receptacle Only.

The new low insertion force, front-insertable, front-removable #22 socket contacts with .025(6.35) square wire wrappable tails are now available for use in the BKAF non-enviornmental receptacle version only.
These contacts can be sold separately or they can be supplied with a connector (see How to Order). Use part numbers shown in the table on the right when ordering separately.

| Contact Mod. | Part Number | Number of Wraps | Min. Post Extension | Extraction Tool |
|---|---|---|---|---|
| WA | 031-1351-000 | 1 | .250 (6.35) | CET-BKAF 22S |
| WB | 031-1351-001 | 2 | .375 (9.52) | |
| WC | 031-1351-002 | 3 | .500 (12.70) | |
| WD | 031-1351-003 | 3 | .641 (16.28) | |

### BKAF Printed Circuit Solder Post Socket Contacts Size 22 with .025(6.35) Dia. Printed Circuit Tails-Receptacle Only.

The new low insertion force, front-insertable, front-removable #22 socket contacts with .025(6.35) dia., PC tails are now availble for use in the BKAF non-environmental receptacle version only.
These contacts can be sold separately or they can be supplied with a connector (see How to Order). Use part numbers shown in the table on the right when ordering separately.

| Contact Mod. | Part Number | Min. Post Extension | Extraction Tool |
|---|---|---|---|
| SA | 031-1352-000 | .150 (3.81) | CET-BKAF 22S |
| SB | 031-1352-001 | .250 (6.35) | |
| SC | 031-1351-002 | .375 (9.52) | |
| SD | 031-1352-003 | .500 (12.70) | |

### BKAD/F Solder Post, Power Pin Contacts (Captive)-Receptacle Only.

Contacts are captivated between two unbonded insulator halves.

| Contact Size | Part Number | Post Dia. | Min. Post Extenstion* |
|---|---|---|---|
| 2D HD | 030-2358-000 | .032 (0.81) | .150 (3.81) |
| 16 | 030-2357-000 | .050 (1.27) | .150 (3.81) |
| 12 | 030-2356-000 | .081 (2.06) | .150 (3.81) |

*Consult facotry for other available lengths

### BKAF Solder Post Pin Contact Front Release

| Contact Size | Part Number | Post Dia. | Min. Post Extension | Extraction Tool |
|---|---|---|---|---|
| 20HD | 030-3287-000 | .030 (0.76) | .300* (7.62) | 317-1798-00 |
| 16HD | 030-3287-001 | .050 (1.27) | .300* (7.62) | 317-1798-02 |
| 12HD | 030-3287-002 | .081 (2.06) | .300* (7.62) | 317-1798-02 |

*Applies to BKAF 13W2 and 5W2 inserts only

### Front Release Pin Contacts Size 20 and 16

| Contact Size | Part Number | PC Tail Dia. | Min. Post Extension |
|---|---|---|---|
| 20 | 030-3296-001 | .034 (0.86)/.030 (0.76) | .260 (6.60) |
| 20 | 030-3296-002 | .034 (0.86)/.030 (0.76) | .385 (9.78) |
| 16 | 030-3297-001 | .052 (1.32)/.048 (1.22) | .260 (6.60) |
| 16 | 030-3297-002 | .052 (1.32)/.048 (1.22) | .385 (9.78) |
| 16 | 030-3297-005 | .052 (1.32)/.048 (1.22) | .300 (7.62) |
| 20 | 030-3296-004 | .034 (0.86)/.030 (0.76) | .300 (7.62) |

## Size 5 Coax Contact (Rear insertable/removable)

**Crimp Center Contact-Conforming to ARINC 600**

| Cable Accommo-dation | Part Number | | Crimp Tooling | | | | | | | Extraction Tool |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Center Contact | | | | Outer Shell | | | |
| | | | Tool | | Locator | | MIL STD | | ITT Cannon | |
| | Pin (Receptacle Connector) | Socket (Plug Connector) | MIL Spec | ITT Cannnon | Daniels | ITT Cannon | Frame | Jaw | Complete Tool | |
| RG-58C/U BA-5903 (BG) | 349-0014-000 | 349-0013-000 | M22520/2-01 | 995-0001-584 | K-345 | 995-0002-049 | M22520/5-01 | M22520/5-45B | CCT-HX3-156 | CET-C8 |
| 5021K1011 (Raychem) | 349-0016-000 | 349-0015-000 | M22520/2-01 | 995-0001-584 | K-345 | 995-0002-049 | M22520/5-01 | M22520/5-45B | CCT-HX3-156 | CET-C8 |
| RG-223 | 349-1060-100 | 349-1059-000 | M22250/2-01 | 995-0001-584 | K-345 | 995-0002-049 | M22520/5-01 | M22520/5-45B | CCT-HX3-156 | CET-C8 |
| RG-400 | - | 349-1003-000 | M22250/2-01 | 995-0001-584 | K-345 | 995-0002-049 | M22520/10-01 | M22520/10-23 | - | CET-C8 |
| RG-316 | - | 349-1004-000 | M22250/2-01 | 995-0001-584 | K-345 | 995-0002-049 | M22520/10-01 | M22520/10-23 | - | CET-C8 |

## Size 12 Shielded Contact (Rear insertable/removable)

| Cable Accommo-dation | Part Number | | Crimp Tooling | | | | | | | Tool | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Center Contact | | | | Outer Shell Tool | | | | |
| | | | Tool P/N | | Locator P/N | | MIL Std | | ITT Cannon | | |
| | Pin (Receptacle Connector) | Socket (Plug Connector) | MIL Spec | ITT Cannon | Daniels | ITT Cannon | Frame | Jaw | | MIL Spec | ITT Cannon |
| RG-196A/U | 249-1767-000 | - | M22520/2-01 | 995-0001-584 | K-182 | 995-0002-051 | M22520/1-01 | M22520/10-05A | 995-0001-071 | M81969/28-02 | CET-12-4 Plastic |
| 5071 (HW) | 249-1767-001 | - | M22520/2-01 | 995-0001-584 | K-182 | 995-0002-051 | M22520/1-01 | M22520/10-05A | 995-0001-071 | M81969/28-02 | CET-12-4 Plastic |
| RG-174/U | - | 249-1768-000 | M22520/2-01 | 995-0001-584 | K-182 | 995-0002-051 | M22520/1-01 | M22520/10-05A | 995-0001-071 | M81969/28-02 | CET-12-4 Plastic |
| BMS-1348 (BG) | - | 249-2203-000 | M22520/2-01 | 995-0001-584 | K-644 | 995-0002-050 | M22520/1-01 | M22520/10-05A | 995-0001-071 | M81969/28-02 | CET-12-4 Plastic |

## Size 1 Modified Coaxial Contacts (4W4 Layout Only)

**Plug Connector**

| | Coax | | Replacement Termination Kits | |
|---|---|---|---|---|
| Cable Accommodation | Part Number | Style | Solder Type | CrimpType |
| RG214 | 349-1043-001 | Straight | 320-1066-000 | 320-1066-016 |
| AA-5886 | 349-1048-000 | Straight | 320-1066-002 | 320-1066-018 |
| RG393 | 349-1051-000 | Straight | 320-1066-003 | 320-1066-019 |
| ECS 311201 | 349-1046-000 | Straight | 320-1066-001 | 320-1066-017 |
| AA-5887 | 349-1049-000 | Straight | 320-1066-004 | 320-1066-013 |
| AA-5888 | 349-1050-000 | Straight | 320-1066-005 | 320-1066-014 |
| RG142 | 349-1047-000 | Straight | 320-1066-006 | 320-1066-015 |
| Various | 349-1047-001 | TNC Adapter | - | - |

Customer Use Drawings:

All Coax contacts (except 349-1047-001) customer use drawing #349-0000-305
Crimp termination kits: Customer use drawing #320-0000-305
Solder termination kits: Customer use drawing #320-0000-304

**Receptacle Connector**

| | Coax | | Replacement Termination Kits | |
|---|---|---|---|---|
| Cable Accommodation | Part Number | Style | Solder Type | CrimpType |
| RG316 DS | 349-1051-002 | Straight | 320-1066-008 | N/A |
| RG142 | 349-1044-000 | Straight | 320-1066-007 | N/A |
| Various | 349-1042-000 | SMA Adapter | - | - |

Customer Use Drawings:

Coax contacts 349-1051-002 and 349-1044-000 are located on cusomter use drawing #349-0000-304
Coax contacts 349-1042-000 is located on cusomter use drawing #320-1042-000

## Sizes 1 Coax Contacts (71W1 layout only)

Same standard coax contacts as used in ITT Cannon's DPX (ARINC 404) connector series.

**Receptacle Connector**

| Cable Accommodation | Coax Part Number | Style | Replacement Coax Termination Kit | Replacement Coax Body Assembly |
|---|---|---|---|---|
| RG-9/U<br>RG-214/U | 249-1521-000 | | 249-1521-002 | 021-0144-000 |
| NSA 935354<br>NSA 935355 | - | | 249-2201-000 | |
| RG-55/U<br>RG-58/U<br>RG-142/U<br>RG-400/U | 249-1554-000 | Straight | 249-1554-002 | 021-0144-003 |
| RG-58/U<br>RG-142/U<br>RG-225/U | 249-1604-001 | 90˚ | 249-1604-003 | 021-0144-006 |
| RG-402/U<br>UT-141 | 249-1604-002 | | | |
| RG-402/U<br>UT-141 | 249-5027-008 | Straight | 249-5027-016 | 021-0144-001 |
| SMA Jack<br>Termination | 249-5027-017 | Straight | - | - |

**Plug Connector**

| Cable Accommodation | Coax Part Number | Style | Replacement Coax Termination Kit | Replacement Coax Body Assembly |
|---|---|---|---|---|
| RG-9/U | 249-1522-000 | Straight | 249-1522-002 | 021-0144-004 |
| NSA 935354<br>NSA 935355 | - | | 249-2202-000 | |
| RG-58/U<br>RG-142/U | 249-1882-000 | | | |
| RG-402/U | 249-1885-002 | Straight | 320-0051-000 | 021-0144-011 |
| RG-214/U | 249-5123-000 | Straight | 249-5027-013 | 021-0144-008 |
| RG-115/U | 249-5123-001 | | 249-5027-015 | |

## Sizes 1 Coax Contacts (To be used with connectors containing 71W1A, 71W1B and 2W2 insert modifier-"M")

Designed to be interchangeable with contacts made by other manufacturers.

**Receptacle Connector**

| Cable Accommodation | Part Number | Style |
|---|---|---|
| RG-142B/U | 349-0021-000 | Right Angle |
| RG-402/U<br>UT-141 | 349-0022-000 | Right Angle |
| SMA Jack<br>Termination | 349-0023-000 | Straight |
| RG-214/U<br>RG-393/U<br>BA-6903<br>(BG) | 349-0002-000 | Straight |
| 5012H3012<br>(Raychem) | 349-0004-000 | Straight |
| RG-142B/U | 349-0006-000 | Straight |
| RG-402/U<br>UT-141 | 349-0008-000 | Straight |

**Plug Connector**

| Cable Accommodation | Standard Size 1 Part Number | Modular Size 1 Part Number | Termination Kit for Modular Size 1 Coax | Style |
|---|---|---|---|---|
| RG-214/U | 349-0017-000 | 349-1053-003 | 320-1066-000 | |
| RG-393/U | 349-0017-000 | - | - | Straight |
| BA-6903 | 349-0017-000 | 349-1053-007 | 320-1066-003 | |
| 5012H3012<br>(Raychem) | 349-0018-000 | - | - | Straight |
| RG-142B/U | 349-0005-000 | 349-1053-006 | 320-1066-006 | Straight |
| RG-402/U<br>UT-141 | 349-0007-000 | - | - | Straight |
| AA-5888 | - | 349-1053-008 | 320-1066-005 | Straight |
| ECS-310801 | - | 349-1053-005 | - | Straight |
| AA-5886 | - | 349-1053-004 | 320-1066-002 | Straight |
| BSX-7004-502 | - | 349-1053-003 | - | Straight |
| ECS-311201 | - | 349-1053-002 | 320-1066-001 | Straight |
| AA-5887 | - | 349-1053-001 | 320-1066-004 | Straight |
| Adam Russell<br>PC-38 | - | 349-1053-000 | - | Straight |

## Size 8 Coaxial Contacts

### Plug Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | RF Cable Number |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | Solder .250 (6.35) | FR-FR .375 (9.52) | |
| 349-1087-000 | - | - | X | | | | Adams-Russell Co. Inc. FC11Z |
| 349-1087-001 | - | - | X | | | | Adams-Russell Co. Inc. FC14Z |

### Receptacle Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | RF Cable Number |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | FR-FR .250 (6.35) | Solder .375 (9.52) | |
| 349-1084-000 | - | X | | | X | | |
| 349-1084-001 | X | - | | | X | | |
| 349-1084-002 | - | X | | | | X | |
| 349-1084-003 | X | - | | | | X | |
| 349-1086-000 | - | X | | X | | | Adams-Russell Co. Inc. FC11Z |
| 349-1086-001 | - | X | | X | | | Adams-Russell Co. Inc. FC14Z |

## Size 8 Twinax Contacts

### Plug Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | RF Cable Number |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | Solder .250 (6.35) | FR-FR .375 (9.52) | |
| 349-1006-000 | - | - | X | | | | M17/176-00002 |
| 349-1081-000 | - | - | X | | | | Tensolite Co. 24463/9 B017X-2 (LD) |

### Receptacle Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | RF Cable Number |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | Solder .250 (6.35) | FR-FR .375 (9.52) | |
| 349-1007-000 | - | - | X | | | | M17/176-00002 |
| 349-1080-000 | X | - | | | X | | |
| 349-1080-001 | - | X | | | X | | |
| 349-1080-002 | X | - | | | | X | |
| 349-1080-003 | - | X | | | | X | |
| 349-1082-000 | X | - | | X | | | Tensolite Co. 24463/9 B017X-2 (LD) |
| 349-1082-001 | - | X | | X | | | Tensolite Co. 24463/9 B017X-2 (LD) |
| 349-1088-000 | - | X | X | | | | Tensolite Co. 24463/9 B017X-2 (LD) |

## Size 8 Ground Contacts

### Plug Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | Wire Size |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | Solder .250 (6.35) | FR-FR .375 (9.52) | |
| 031-3300-000 | - | - | X | | | | 8, 10 AWG |

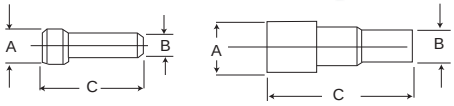
### Receptacle Connector

| Contact Type Socket Part Number | *Engagement | | **Termination | | | | Wire Size |
|---|---|---|---|---|---|---|---|
| | Short | Long | Crimp RR-RR | Crimp FR-RR | Solder .250 (6.35) | FR-FR .375 (9.52) | |
| 030-3306-000 | - | X | | | X | | 8, 10 AWG |
| 030-3306-001 | - | X | | | | X | 8, 10 AWG |
| 030-3676-000 | - | - | | X | | | 8, 10 AWG |

* The electrical engagement of "Long" contacts is .150 (3.81) greater than the electrical engagement of "Short" contact.
**RR-RR indicates rear release, rear removal.
FR-RR indicates front release, rear removal.
FR-FR indicates front release, front removal.

## Sealing Plugs-BKAE Environmental Connnectors Only

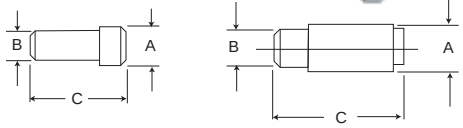
**P/N 225-0090-000**
**Material: Teflon**
**(All others thermoplastic)**




| Part Number | Contact Size | Color | A | B | C |
|---|---|---|---|---|---|
| 225-1013-000 | 22 | Black | .063 (1.6) | .040 (1.0) | .469 (11.9) |
| 225-0070-000 | 20 | Red | .085 (2.2) | .065 (1.6) | .469 (11.9) |
| 225-0071-000 | 16 | Blue | .115 (2.9) | .075 (1.9) | .469 (11.9) |
| 225-0072-000 | 12 | Yellow | .171 (4.3) | .121 (3.1) | .564 (14.3) |
| 225-0090-000 | #5 and #9 Coax | White | .365 (9.3) | .287 (7.3) | .835 (21.2) |

## Filler Plugs-BKAD Non-Environmental Connectors Only

**P/N 225-0099-000**
**Material: Teflon**
**(All others thermoplastic)**




**BKAF P/N 225-1058-000**
**(Size 22 - Black)**
**(See Customer Use Drawing for details)**

| Part Number | Contact Size | Color | A | B | C |
|---|---|---|---|---|---|
| 225-0094-000 | 22 | Black | .069 (1.7) | .051 (1.3) | .420 (10.7) |
| 225-0095-000 | 20 | Red | .083 (2.1) | .069 (1.7) | .350 (8.9) |
| 225-0096-000 | 16 | Blue | .131 (3.3) | .108 (2.7) | .320 (8.1) |
| 225-0097-000 | 12 | Yellow | .187 (4.7) | .156 (4.0) | .320 (8.1) |
| 225-0098-000 | #5 Coax (Pin) | White | .275 (7.0) | .251 (6.4) | .450 (11.4) |
| 225-0099-000 | #5 and #9 Coax (Socket) | White | .275 (7.0) | .251 (6.4) | 1.061 (26.9) |

## Cavity Reducer

**Pin**
**P/N 021-8756-000**

**Socket**
**P/N 021-8757-000**

**#5 Coax to #12 Contact**

Cavity reducers are available when additional circuits are required for siz 12 power contacts. These reducers, having the internal configuration of size 12 power contact, are inserted into the size 5 coaxial insulator cavity to create size 12 power contact cavity.

## Dust Caps

**Conductive dust caps protect against static electricity.**

| Part Number | Description |
|---|---|
| 025-1121-001 | BKAD 1-A & B-Plug |
| 025-1122-001 | BKAD 1-C-Plug |
| 025-1123-001 | BKAD 2&3-A & B-Plug |
| 025-1124-001 | BKAD 2&3-C-Plug |

Note: Supplied as standard for BKA product line only.

| Part Number | Description |
|---|---|
| 025-1155-001 | BKAD 1-A&B-Receptacle |
| 025-1156-001 | BKAD 1-C-Receptacle |
| 025-1157-001 | BKAD 2&3-A & B-Receptacle |
| 025-1158-001 | BKAD 2&3-C-Receptacle |

## Replaceable Inserts

| Layout | Class | Part Number | |
|---|---|---|---|
| | | Pin Assembly | Socket Assembly |
| 2W2** | BKAD | 144-2944-000 | 144-2945-000 |
| | BKAE | 144-2944-000 | 144-2945-000 |
| A | BKAE | 143-1156-001 | 143-1157-001 |
| 4W4** | BKAD | 177-1000-002 | 177-1001-004 |
| | BKAE | 177-1000-002 | 177-1001-004 |
| 5W2 | BKAD | 143-1912-000 | 143-1913-000 |
| | BKAE | 143-1912-001 | 143-1913-001 |
| | BKAF | 143-1141-000 | N/A |
| 6 | BKAE | 143-1154-001 | 143-1155-001 |
| 6T6 | BKAD | 228-1026-002 | 228-1012-003 |
| | BKAE | 228-1026-001 | 228-1012-001 |
| | BKAF | N/A | 228-1015-001 |
| 10T10 | BKAD | 228-1027-002 | N/A |
| | BKAE | 228-1027-001 | 228-1014-002 |
| 13W2 | BKAD | 143-1908-000 | 143-1909-000 |
| | BKAE | 143-1908-001 | 143-1909-001 |
| | BKAF | 143-1142-000 | N/A |
| 30T2 | BKAD | 143-1173-000 | 143-1174-000 |
| | BKAE | 143-1173-001 | 143-1174-001 |
| 34 | BKAD | 143-1159-001 | N/A |
| | BKAE | 143-1097-005 | 143-1098-005 |
| 40 | BKAE | 143-1171-001 | 143-1172-001 |
| 59* | BKAE | 143-1167-001 | 143-1170-001 |
| 60-#20** | BKAE | 143-3714-003 | 143-3715-003 |
| 60-#22** | BKAD | 143-1910-000 | 143-1911-000 |
| | BKAE | 143-1910-001 | 143-1911-001 |
| | BKAF | N/A | 143-2065-000 |
| 71W1 | BKAD | 143-1958-000 | 143-1960-000 |
| | BKAE | 143-1958-002 | 143-1960-002 |
| | BKAF | N/A | 143-2090-000 |
| 71W1A* | BKAD | 143-2085-001 | 143-2086-001 |
| | BKAE | 143-2085-000 | 143-2086-000 |
| | BKAF | N/A | 143-2066-000 |
| 71W1B | BKAD | 143-1113-000 | 143-1111-000 |
| | BKAE | 143-114-000 | 143-1112-000 |
| | BKAF | N/A | 143-1118-000 |
| 85 | BKAD | 143-3877-000 | 143-3878-000 |
| | BKAE | 143-3879-000 | 143-3880-000 |
| | BKAF | N/A | 143-1178-000 |
| 100 | BKAD | 143-2015-000 | 143-2016-000 |
| | BKAE | 143-2015-001 | 143-2016-001 |
| | BKAF | N/A | 143-2067-000 |
| 110 | BKAE | 143-1182-000 | 143-1183-000 |
| 120T2 | BKAD | N/A | 143-1166-002 |
| | BKAE | 143-1165-001 | 143-1166-001 |
| | BKAF | N/A | 143-1177-000 |
| 121 | BKAD | 143-1150-002 | 143-1158-002 |
| | BKAE | 143-1150-001 | 143-1158-001 |
| 150 | BKAD | 143-1906-000 | 143-1907-000 |
| | BKAE | 143-1906-001 | 143-1907-001 |
| | BKAF | N/A | 143-2068-000 |

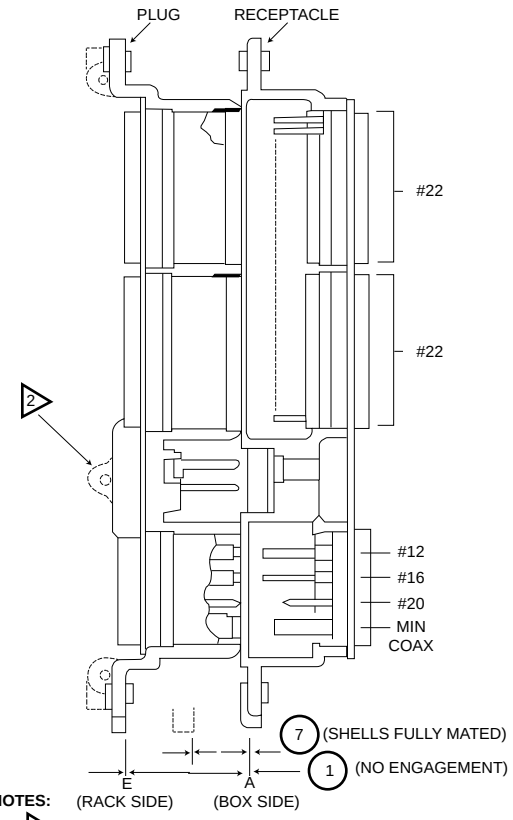
Consult factory for Insert Part Numbers not listed.
*Modified 71W1 insert to be used with connectors containing 71W1 insert modifier "M"
**"Pin Inserts' accept receptacle coax contacts. "Socket Inserts" accept plug coax contacts.

## Cross Reference-Part Number/Customer-Use Drawing

| COMPONENT PART NUMBER | CUSTOMER USE DRAWING NUMBER |
|---|---|
| **Contacts** | |
| 030-1975-009 | 030-1975-009 |
| 030-1975-010 | 030-1975-010 |
| 030-2259-000 | 030-2259-000 |
| 030-2273-000 | 030-2273-000 |
| 030-2280-000 | 030-2280-000 |
| 030-2286-000 | 030-2286-000 |
| 030-2356-000 | 030-2356-000 |
| 030-2357-000 | 030-2357-000 |
| 030-2358-000 | 030-2358-000 |
| 031-1113-009 | 031-1113-009 |
| 031-1113-010 | 031-1113-010 |
| 031-1287-000 | 031-1287-000 |
| 031-1302-000 | 031-1302-000 |
| 031-1303-000 | 031-1303-000 |
| 031-1308-000 | 031-1308-000 |
| 031-1351-000 | 031-0000-343 |
| 031-1351-001 | |
| 031-1351-002 | |
| 031-1351-003 | |
| 031-1352-000 | 031-0000-344 |
| 031-1252-000 | |
| 031-1252-002 | |
| 031-1352-003 | |
| **Replacement Coax Body Assembly** | |
| 021-0144-000 | 021-0144-000 |
| 021-0144-001 | 021-0144-001 |
| 021-0144-002 | 021-0144-002 |
| 021-0144-003 | 021-0144-003 |
| 021-0144-004 | 021-0144-004 |
| 021-0144-006 | 021-0144-006 |
| 021-0144-008 | 021-0144-008 |
| 021-0144-011 | 021-0144-011 |
| **Size #5 Coax Contacts** | |
| 349-0013-000 | 349-0000-000 |
| 349-0014-000 | 349-0000-001 |
| 349-0015-000 | 349-0000-002 |
| 349-0016-000 | 349-0000-001 |
| 349-1003-000 | 349-000-301 |
| 349-1009-000 | |
| **Size #12 Shielded Contact** | |
| 249-1767-000 | 249-1767-000 |
| 249-1767-001 | 249-1767-001 |
| 249-1768-000 | 249-1768-000 |
| 249-2203-000 | 249-2203-000 |
| **Replaceable Inserts** | |
| 143-1906-000 | 143-0000-079 |
| 143-1906-001 | |
| 143-1907-001 | |
| 143-1907-001 | |
| 143-1908-000 | 143-0000-081 |
| 143-1908-001 | |
| 143-1909-000 | |
| 143-1909-001 | |
| 143-1910-000 | 143-0000-077 |
| 143-1910-001 | |
| 143-1911-000 | |
| 143-1911-001 | |
| 143-1912-000 | 143-0000-080 |
| 143-1912-001 | |
| 143-1913-000 | |
| 143-1913-001 | |
| 143-1958-000 | 143-0000-079 |
| 143-1958-002 | |
| 143-1960-000 | |
| 143-1960-002 | |
| 143-2015-000 | 143-0000-078 |
| 143-2015-001 | |
| 143-2016-000 | |
| 143-2016-001 | |
| 143-2065-000 | 1247Y |
| 143-2066-000 | |
| 143-2067-000 | |
| 143-2068-000 | |
| 143-2085-000 | 143-0000-079 |
| 143-2085-001 | |
| 143-2086-000 | |
| 143-2086-001 | |
| **Size #1 Coax Contacts** | |
| 249-1521-000 | 249-1521-000 |
| 249-1522-000 | 249-1522-000 |
| 249-1522-002 | 249-1522-002 |
| 249-1554-000 | 249-1554-000 |
| 249-1604-000 | 249-1604-000 |
| 249-1604-001 | 249-1604-001 |
| 249-1604-002 | 249-1604-002 |
| 249-1882-000 | 249-1882-000 |
| 249-1882-002 | 1250Y |
| 249-1885-002 | |
| 249-5027-008 | 249-5027-008 |
| 249-5027-017 | 249-5027-017 |
| 249-5123-000 | 249-5027-000 |
| 249-5123-001 | 249-5027-007 |
| 349-1053-000 | 349-0000-306 |
| 349-1053-001 | |
| 349-1053-002 | |
| 349-1053-003 | |
| 349-1053-004 | |
| 3491053-005 | |
| 349-1053-006 | |
| 349-1053-007 | |
| 349-1053-008 | |
| 349-1053-009 | |
| **Replacement Coax Termination Kit** | |
| 249-1521-002 | 249-1521-002 |
| 249-1522-009 | 249-1522-010 |
| 249-1522-010 | 249-1522-010 |
| 249-1554-002 | 249-1554-002 |
| 249-1604-003 | 249-1604-003 |
| 249-1604-004 | 249-1604-004 |
| 249-2201-000 | 249-1521-002 |
| 249-2202-000 | 249-1522-010 |
| 249-5027-013 | 249-5027-013 |
| 249-5027-015 | 249-5027-007 |
| 249-5027-016 | 249-5027-016 |
| 320-0051-000 | 1250Y |
| 320-1066-000 | 320-000-305 |
| 320-1066-001 | |
| 320-1066-002 | |
| 320-1066-003 | |
| 320-1066-004 | |
| 320-1066-005 | |
| 320-1066-006 | |
| **Dust Caps** | |
| 025-1121-001 | 025-0000-054 (Conductive Only) |
| 025-1122-001 | |
| 025-1123-001 | |
| 025-1124-001 | |
| 025-1155-001 | 025-0000-055 (Conductive Only) |
| 025-1156-001 | |
| 025-1157-001 | |
| 025-1158-001 | |
| **Filler Plugs** | |
| 225-0094-000 | 225-0000-014 |
| 225-0095-000 | |
| 225-0096-000 | |
| 225-0097-000 | |
| 225-0098-000 | |
| 225-0099-000 | |
| 225-1058-000 | |
| **Sealing Plugs** | |
| 225-0072-000 | 225-0000-006 |
| 225-0090-000 | 225-0090-000 |
| 225-1013-000 | 225-0000-008 |
| 225-1014-000 | |
| 225-1015-000 | |

For part numbers not listed, consult ITT Cannon for applicalbe customer-use drawing.

## ARINC 600 Connector Engaging Sequence




| Mating Sequence | Flange Position With: | Flange Spacing in. (mm) |
|---|---|---|
| 1 | No Engagement | 1.245 (31.62) Nom. |
| 2 | Shells Initially Engaged | 1.110 (28.19) / 1.073 (27.25) |
| 3 | Polarizing Pins Entering Keys | 1.073 (27.25) / 1.023 (25.88) |
| 4 | Contacts Entering Mating Insulator | |
| | #22 | .800 (22.32) / .748 (18.99) |
| | #20 | .805 (20.44) / .741 (18.82) |
| | #16 | 1.012 (25.70) / .949 (24.10) |
| | #12 | 1.008 (23.60) / .953 (24.20) |
| | Miniature Coax | 1 |
| 5 | Contacts Electrically Engaged | |
| | #22 | .642 (16.30) / .547 (13.89) |
| | #20 | .649 (16.48) / .553 (14.04) |
| | #16 | .728 (18.49) / .818 (20.77) |
| | #12 | .772 (19.60) / .692 (17.57) |
| | Miniature Coax | 1 |
| 6 | "0" Ring Engagement (BKAE Only) | .618 (15.70) / .578 (14.68) |
| 7 | Shells Fully Mated | .522 (13.26) / .488 (12.40) |

**NOTES:**

1. 1. Varies; See Mil-Spec. (#5 Coax)
2. 2. Size 1 only.
3. Flush head screws are not permitted for connector mounting as they would position connector incorrectly.
4. Dimension 7 was calculated to provide clearance for
   - MCU backplate mat'l thickness of 2.5 mm (.10 in).
   - Rack backplate mat'l thickness of 2.5 mm (.10 in).
   - Connector mounting pan head screws, MCU 2.0 mm (.08 in).
   - Tolerance allowance - 3.2 mm (.13 in.) rack 2.0 mm (.08 in.)

   Total - 12.2 (.50 in) (minimum).