

# **Bombardier Transportation Design Guide for Amphenol® GT Series Reverse Bayonet Coupling Connectors**

L-2123

Date: 10-01-2004



**FOR USE BY BOMBARDIER &  
BOMBARDIER'S SUBCONTRACTORS**

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**Amphenol**

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# Amphenol® GT Connectors

## with reverse bayonet coupling

### for Bombardier

The GT Connector is the preferred connector for the mass transit industry. It was chosen by Bombardier for its heavy duty features and its proven reliability.

This publication was designed for use by Bombardier and Bombardier subcontractors. It is the intention of Amphenol to supply this information in order to simplify the ordering processes of Bombardier for GT Reverse Bayonet connectors. It will be updated as needed to provide the most current information.

GT Connector Shell Styles  
Presented in this Publication



**Square Flange Receptacle  
for Rear Panel Mounting**



**Straight Plug**



**90° Plug**

Amphenol® GT Reverse Bayonet Coupling Connectors Features:

- Quick positive coupling
- Audible, tactile and visual indication of full coupling
- Waterproof
- No lockwiring required
- High shock and vibration capabilities
- Inserts are made from low smoke/flame retardant or Neoprene
- Operating temperature range:  
–55°C to +125°C
- Available in both crimp and solder terminations
- Contacts available in gold and silver plating
- Numerous finishes available
- Black zinc alloy plating (cadmium free) available
- Rugged construction; aluminum or stainless steel components
- Intermateable with existing VG95234 connectors
- 2000 couplings minimum
- UL recognized

For further information on GT Connectors consult Amphenol catalog 12-024 or contact:

Amphenol Corporation  
Amphenol Industrial Operations  
40-60 Delaware Avenue  
Sidney, New York 13838-1395  
Phone: 607-563-5011 Fax: 607-563-5351  
[www.amphenol-industrial.com](http://www.amphenol-industrial.com)

# GT Series for Bombardier

## insert availability and alternate positioning

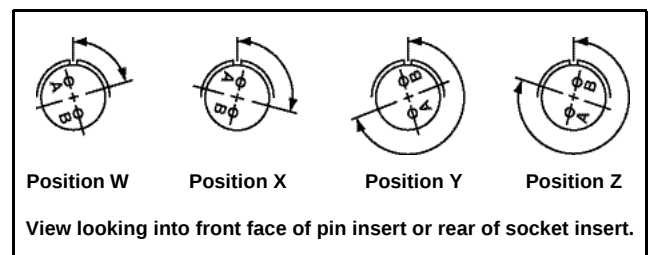
### INSERT AVAILABILITY

| Insert Arrangement | Service Rating | Total Contacts | Contact Size |   |   |    |    |     |     |
|--------------------|----------------|----------------|--------------|---|---|----|----|-----|-----|
|                    |                |                | 0            | 4 | 8 | 12 | 16 | 2/0 | 4/0 |
| 10SL-3             | A              | 3              |              |   |   |    | 3  |     |     |
| 14S-6              | Inst.          | 6              |              |   |   |    | 6  |     |     |
| 16S-1              | A              | 7              |              |   |   |    | 7  |     |     |
| 16-10              | A              | 3              |              |   |   | 3  |    |     |     |
| 18-1               | A/Inst.        | 10             |              |   |   |    | 10 |     |     |
| 18-11              | A              | 5              |              |   |   | 5  |    |     |     |
| 18-12              | A              | 6              |              |   |   |    | 6  |     |     |
| 20-4               | D              | 4              |              |   |   | 4  |    |     |     |
| 20-29              | A              | 17             |              |   |   |    | 17 |     |     |
| 22-2               | D              | 3              |              |   | 3 |    |    |     |     |
| 22-14              | A              | 19             |              |   |   |    | 19 |     |     |
| 24-22              | D              | 4              |              |   | 4 |    |    |     |     |
| 24-96              | Inst.          | 28             |              |   |   |    | 28 |     |     |
| 28-6               | D              | 3              |              | 3 |   |    |    |     |     |
| 28-21              | A              | 37             |              |   |   |    | 37 |     |     |
| 28-22              | D              | 6              |              | 3 |   |    | 3  |     |     |
| 28-84              | A              | 9              |              |   | 9 |    |    |     |     |
| 32-AF              | A              | 55             |              |   |   |    | 55 |     |     |
| 36-10              | A              | 48             |              |   |   |    | 48 |     |     |
| 40-35              | D              | 35             |              |   |   | 35 |    |     |     |
| 40-56              | A              | 85             |              |   |   |    | 85 |     |     |
| 40-AP              | E              | 2              |              |   |   |    |    |     | 2   |
| 40-AS              | A              | 40             |              |   |   | 25 | 15 |     |     |
| 40-AT              | A              | 43             |              |   | 1 | 24 | 18 |     |     |
| 40-AV              | D              | 3              |              |   |   |    |    | 3   |     |

### ALTERNATE POSITIONING

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate rotations are available as indicated in the chart below.

As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counter-clockwise the same number of degrees in respect to the normal shell key.



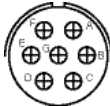
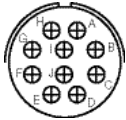
| Insert Arrangement | Degrees |     |     |     |
|--------------------|---------|-----|-----|-----|
|                    | W       | X   | Y   | Z   |
| 16-10              | 90      | 180 | 270 | —   |
| 16S-1              | 80      | —   | —   | 280 |
| 18-1               | 70      | 145 | 215 | 290 |
| 18-11              | —       | 170 | 265 | —   |
| 18-12              | 80      | —   | —   | 280 |
| 20-4               | 45      | 110 | 250 | —   |
| 20-29              | 80      | —   | —   | 280 |
| 22-2               | 70      | 145 | 215 | 290 |
| 22-14              | 80      | 110 | 250 | 280 |
| 24-22              | 45      | 110 | 250 | —   |
| 24-96              | 65      | —   | —   | —   |
| 28-6               | 70      | 145 | 215 | 290 |
| 28-21              | 80      | 110 | 250 | 280 |
| 28-22              | 70      | 145 | 215 | 290 |
| 32-AF              | 80      | 110 | 250 | 280 |
| 36-10              | 80      | 125 | 235 | 280 |
| 40-35              | 70      | 130 | 230 | 290 |
| 40-56              | 72      | 144 | 216 | 288 |

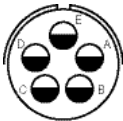
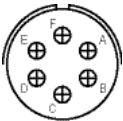
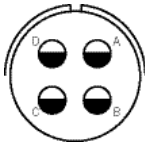
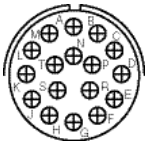
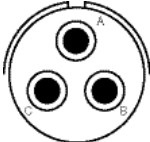
Additional rotations available; consult Amphenol for information.

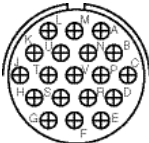
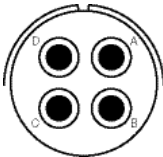
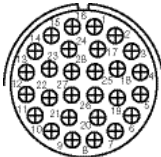
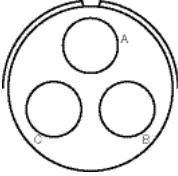
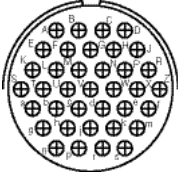
# GT Series for Bombardier

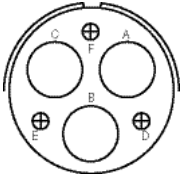
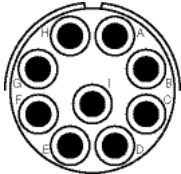
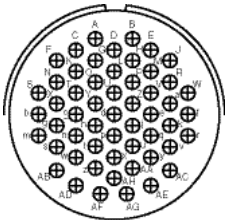
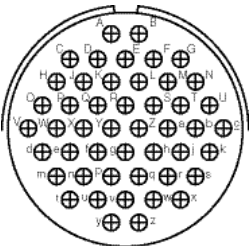
## contact arrangements

front face of pin insert or rear face of socket insert illustrated

|                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |
|                    | Front of<br>Socket Insert                                                         |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Insert Arrangement | 10SL-3                                                                            | 14S-6                                                                             | 16S-1                                                                              | 16-10                                                                               | 18-1                                                                                |
| Service Rating     | A                                                                                 | Inst.                                                                             | A                                                                                  | A                                                                                   | B, C, F, G = A; Bal. = Inst.                                                        |
| Number of Contacts | 3                                                                                 | 6                                                                                 | 7                                                                                  | 3                                                                                   | 10                                                                                  |
| Contact Size       | 16                                                                                | 16                                                                                | 16                                                                                 | 12                                                                                  | 16                                                                                  |

|                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |
| Insert Arrangement | 18-11                                                                             | 18-12                                                                             | 20-4                                                                               | 20-29                                                                               | 22-2                                                                                |
| Service Rating     | A                                                                                 | A                                                                                 | D                                                                                  | A                                                                                   | D                                                                                   |
| Number of Contacts | 5                                                                                 | 6                                                                                 | 4                                                                                  | 17                                                                                  | 3                                                                                   |
| Contact Size       | 12                                                                                | 16                                                                                | 12                                                                                 | 16                                                                                  | 8                                                                                   |

|                    |                                                                                     |                                                                                     |                                                                                      |                                                                                       |                                                                                       |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |
| Insert Arrangement | 22-14                                                                               | 24-22                                                                               | 24-96                                                                                | 28-6                                                                                  | 28-21                                                                                 |
| Service Rating     | A                                                                                   | D                                                                                   | Inst.                                                                                | D                                                                                     | A                                                                                     |
| Number of Contacts | 19                                                                                  | 4                                                                                   | 28                                                                                   | 3                                                                                     | 37                                                                                    |
| Contact Size       | 16                                                                                  | 8                                                                                   | 16                                                                                   | 4                                                                                     | 16                                                                                    |

|                    |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                    |  |  |  |  |
| Insert Arrangement | 28-22                                                                               | 28-84                                                                               | 32-AF                                                                                | 36-10                                                                                 |
| Service Rating     | D                                                                                   | A                                                                                   | A                                                                                    | A                                                                                     |
| Number of Contacts | 3 3                                                                                 | 9                                                                                   | 55                                                                                   | 48                                                                                    |
| Contact Size       | 4 16                                                                                | 8                                                                                   | 16                                                                                   | 16                                                                                    |

CONTACT LEGEND











16

12

8

4

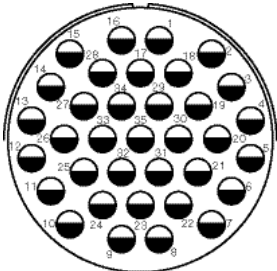
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# GT Series for Bombardier

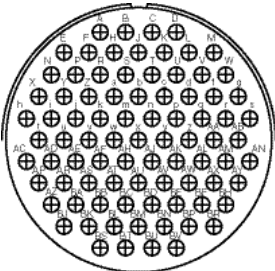
## contact arrangements

front face of pin insert or rear face of socket insert illustrated

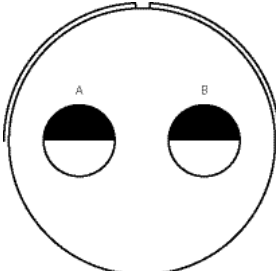
Insert Arrangement  
Service Rating  
Number of Contacts  
Contact Size



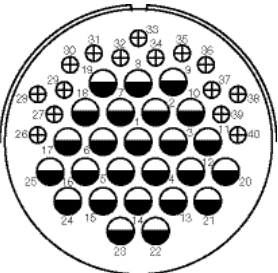
40-35  
D  
35  
12



40-56  
A  
85  
16

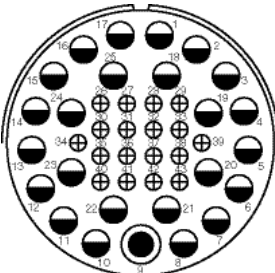


40-AP  
E  
2  
4/0

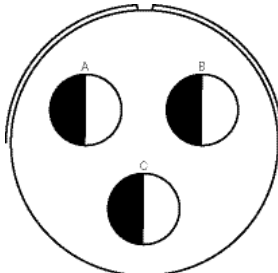


Insert Arrangement  
Service Rating  
Number of Contacts  
Contact Size

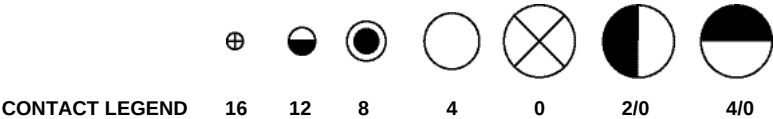
40-AS  
A  
25 15  
12 16



40-AT  
A  
1 24 18  
8 12 16



40-AV  
D  
3  
2/0



# GT Connectors for Bombardier

## part number description

### Amphenol GT Part Number System

| GT | CL | 030 | RV | FF | 36-10 | P | W | (025) |
|----|----|-----|----|----|-------|---|---|-------|
| 1  | 2  | 3   | 4  | 5  | 6     | 7 | 8 |       |

#### 1. Contact Style and Insert Material

CL = Crimp with low smoke/flame retardant inserts

#### 2. Shell Style

030 - Square flange receptacle - rear panel mount

06 - Straight plug

08 - 90° angle plug

#### 3. Connector Class - For details see pictorial description at right and see pages X-X for detailed drawings.

No letter designates connector with no adapter, but with threaded rear to accept an accessory attachment.

CFZ - Adapter, jacketed cable clamp, individual wire sealing grommet, environmental

F - Adapter, clamp for individual wires, individual wire sealing grommet, environmental.

RV - Adapter, individual wire sealing grommet, environmental

#### 4. Designation for Mounting Holes Receptacle Only

FF - UN Threads (consult Amphenol)

FM - Metric Threads (consult Amphenol)

No designation for standard through mounting holes.

#### 5. Shell Size and Arrangement

See page 2.

#### 6. Contact Style

P designates pin contacts

S designates socket contacts

#### 7. Alternate Position

W, X, Y and Z - See page 2.

No suffix required for normal position.

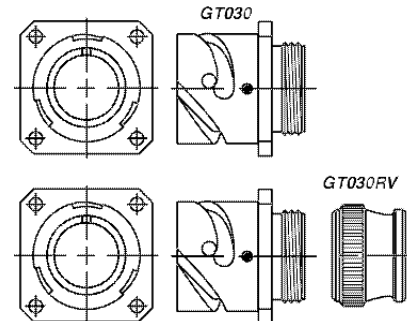
#### 8. Connector Modification

(025) Black zinc cobalt

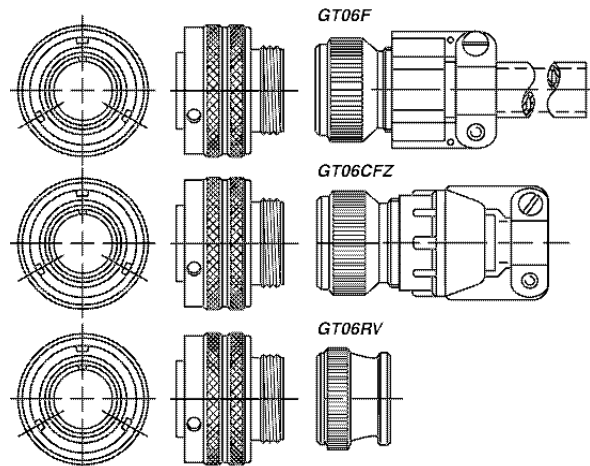
(LC) Less contacts

### PICTORIAL DESCRIPTION OF GT CLASSES

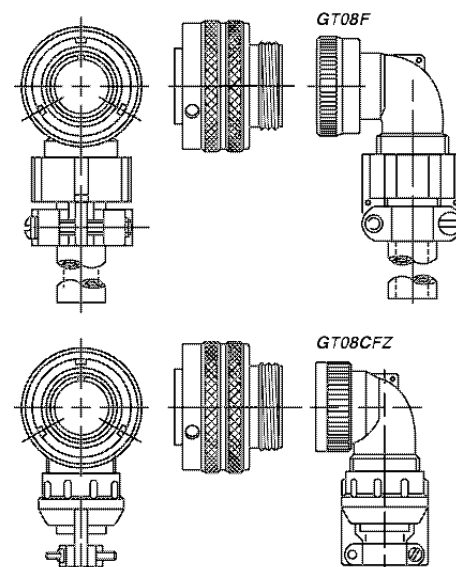
#### RECEPTACLES: GT030, GT030RV



#### STRAIGHT PLUGS: GT06F, GT06CFZ, GT06RV



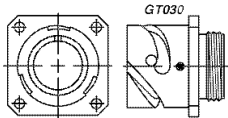
#### 90° PLUGS: GT08F, GT08CFZ



# GT Connectors for Bombardier

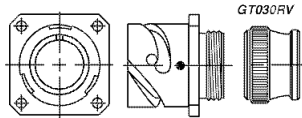
## Amphenol part numbers, receptacles

**GT030**  
**Square Flange Receptacle**



|                             |
|-----------------------------|
| GTCL03010SL-3(P/S)(025)(LC) |
| GTCL03014S-6(P/S)(025)(LC)  |
| GTCL03016S-1(P/S)(025)(LC)  |
| GTCL03016-10(P/S)(025)(LC)  |
| GTCL03018-1(P/S)(025)(LC)   |
| GTCL03018-11(P/S)(025)(LC)  |
| GTCL03018-12(P/S)(025)(LC)  |
| GTCL03020-4(P/S)(025)(LC)   |
| GTCL03020-29(P/S)(025)(LC)  |
| GTCL03022-2(P/S)(025)(LC)   |
| GTCL03022-14(P/S)(025)(LC)  |
| GTCL03024-22(P/S)(025)(LC)  |
| GTCL03024-96(P/S)(025)(LC)  |
| GTCL03028-6(P/S)(025)(LC)   |
| GTCL03028-21(P/S)(025)(LC)  |
| GTCL03028-22(P/S)(025)(LC)  |
| GTCL03028-84(P/S)(025)(LC)  |
| GTCL03032-AF(P/S)(025)(LC)  |
| GTCL03036-10(P/S)(025)(LC)  |
| GTCL03040-35(P/S)(025)(LC)  |
| GTCL03040-56(P/S)(025)(LC)  |
| GTCL03040-AP(P/S)(025)(LC)  |
| GTCL03040-AS(P/S)(025)(LC)  |
| GTCL03040-AT(P/S)(025)(LC)  |
| GTCL03040-AV(P/S)(025)(LC)  |

**GT030RV**  
**Square Flange Receptacle**



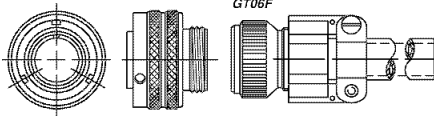
|                               |
|-------------------------------|
| GTCL030RV10SL-3(P/S)(025)(LC) |
| GTCL030RV14S-6(P/S)(025)(LC)  |
| GTCL030RV16S-1(P/S)(025)(LC)  |
| GTCL030RV16-10(P/S)(025)(LC)  |
| GTCL030RV18-1(P/S)(025)(LC)   |
| GTCL030RV18-11(P/S)(025)(LC)  |
| GTCL030RV18-12(P/S)(025)(LC)  |
| GTCL030RV20-4(P/S)(025)(LC)   |
| GTCL030RV20-29(P/S)(025)(LC)  |
| GTCL030RV22-2(P/S)(025)(LC)   |
| GTCL030RV22-14(P/S)(025)(LC)  |
| GTCL030RV24-22(P/S)(025)(LC)  |
| GTCL030RV24-96(P/S)(025)(LC)  |
| GTCL030RV28-6(P/S)(025)(LC)   |
| GTCL030RV28-21(P/S)(025)(LC)  |
| GTCL030RV28-22(P/S)(025)(LC)  |
| GTCL030RV28-84(P/S)(025)(LC)  |
| GTCL030RV32-AF(P/S)(025)(LC)  |
| GTCL030RV36-10(P/S)(025)(LC)  |
| GTCL030RV40-35(P/S)(025)(LC)  |
| GTCL030RV40-56(P/S)(025)(LC)  |
| GTCL030RV40-AP(P/S)(025)(LC)  |
| GTCL030RV40-AS(P/S)(025)(LC)  |
| GTCL030RV40-AT(P/S)(025)(LC)  |
| GTCL030RV40-AV(P/S)(025)(LC)  |

See page 5 for complete description of how the Amphenol part numbers are built.

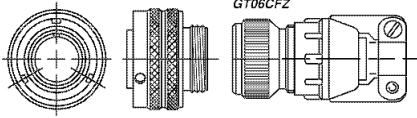
# GT Connectors for Bombardier

## Amphenol part numbers, straight plugs

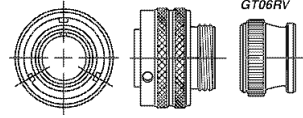
**GT06F**  
Straight Plug

|                                                                                   |
|-----------------------------------------------------------------------------------|
|  |
| GTCL06F10SL-3(P/S)(025)(LC)                                                       |
| GTCL06F14S-6(P/S)(025)(LC)                                                        |
| GTCL06F16S-1(P/S)(025)(LC)                                                        |
| GTCL06F16-10(P/S)(025)(LC)                                                        |
| GTCL06F18-1(P/S)(025)(LC)                                                         |
| GTCL06F18-11(P/S)(025)(LC)                                                        |
| GTCL06F18-12(P/S)(025)(LC)                                                        |
| GTCL06F20-4(P/S)(025)(LC)                                                         |
| GTCL06F20-29(P/S)(025)(LC)                                                        |
| GTCL06F22-2(P/S)(025)(LC)                                                         |
| GTCL06F22-14(P/S)(025)(LC)                                                        |
| GTCL06F24-22(P/S)(025)(LC)                                                        |
| GTCL06F24-96(P/S)(025)(LC)                                                        |
| GTCL06F28-6(P/S)(025)(LC)                                                         |
| GTCL06F28-21(P/S)(025)(LC)                                                        |
| GTCL06F28-22(P/S)(025)(LC)                                                        |
| GTCL06F28-84(P/S)(025)(LC)                                                        |
| GTCL06F32-AF(P/S)(025)(LC)                                                        |
| GTCL06F36-10(P/S)(025)(LC)                                                        |
| GTCL06F40-35(P/S)(025)(LC)                                                        |
| GTCL06F40-56(P/S)(025)(LC)                                                        |
| GTCL06F40-AP(P/S)(025)(LC)                                                        |
| GTCL06F40-AS(P/S)(025)(LC)                                                        |
| GTCL06F40-AT(P/S)(025)(LC)                                                        |
| GTCL06F40-AV(P/S)(025)(LC)                                                        |

**GT06CFZ**  
Straight Plug

|                                                                                    |
|------------------------------------------------------------------------------------|
|  |
| GTCL06CFZ10SL-3(P/S)(025)(LC)                                                      |
| GTCL06CFZ14S-6(P/S)(025)(LC)                                                       |
| GTCL06CFZ16S-1(P/S)(025)(LC)                                                       |
| GTCL06CFZ16-10(P/S)(025)(LC)                                                       |
| GTCL06CFZ18-1(P/S)(025)(LC)                                                        |
| GTCL06CFZ18-11(P/S)(025)(LC)                                                       |
| GTCL06CFZ18-12(P/S)(025)(LC)                                                       |
| GTCL06CFZ20-4(P/S)(025)(LC)                                                        |
| GTCL06CFZ20-29(P/S)(025)(LC)                                                       |
| GTCL06CFZ22-2(P/S)(025)(LC)                                                        |
| GTCL06CFZ22-14(P/S)(025)(LC)                                                       |
| GTCL06CFZ24-22(P/S)(025)(LC)                                                       |
| GTCL06CFZ24-96(P/S)(025)(LC)                                                       |
| GTCL06CFZ28-6(P/S)(025)(LC)                                                        |
| GTCL06CFZ28-21(P/S)(025)(LC)                                                       |
| GTCL06CFZ28-22(P/S)(025)(LC)                                                       |
| GTCL06CFZ28-84(P/S)(025)(LC)                                                       |
| GTCL06CFZ32-AF(P/S)(025)(LC)                                                       |
| GTCL06CFZ36-10(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-35(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-56(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-AP(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-AS(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-AT(P/S)(025)(LC)                                                       |
| GTCL06CFZ40-AV(P/S)(025)(LC)                                                       |

**GT06RV**  
Straight Plug

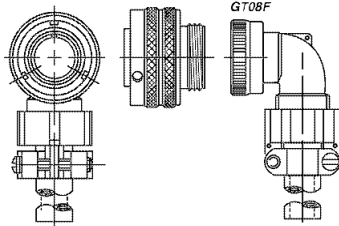
|                                                                                     |
|-------------------------------------------------------------------------------------|
|  |
| GTCL06RV10SL-3(P/S)(025)(LC)                                                        |
| GTCL06RV14S-6(P/S)(025)(LC)                                                         |
| GTCL06RV16S-1(P/S)(025)(LC)                                                         |
| GTCL06RV16-10(P/S)(025)(LC)                                                         |
| GTCL06RV18-1(P/S)(025)(LC)                                                          |
| GTCL06RV18-11(P/S)(025)(LC)                                                         |
| GTCL06RV18-12(P/S)(025)(LC)                                                         |
| GTCL06RV20-4(P/S)(025)(LC)                                                          |
| GTCL06RV20-29(P/S)(025)(LC)                                                         |
| GTCL06RV22-2(P/S)(025)(LC)                                                          |
| GTCL06RV22-14(P/S)(025)(LC)                                                         |
| GTCL06RV24-22(P/S)(025)(LC)                                                         |
| GTCL06RV24-96(P/S)(025)(LC)                                                         |
| GTCL06RV28-6(P/S)(025)(LC)                                                          |
| GTCL06RV28-21(P/S)(025)(LC)                                                         |
| GTCL06RV28-22(P/S)(025)(LC)                                                         |
| GTCL06RV28-84(P/S)(025)(LC)                                                         |
| GTCL06RV32-AF(P/S)(025)(LC)                                                         |
| GTCL06RV36-10(P/S)(025)(LC)                                                         |
| GTCL06RV40-35(P/S)(025)(LC)                                                         |
| GTCL06RV40-56(P/S)(025)(LC)                                                         |
| GTCL06RV40-AP(P/S)(025)(LC)                                                         |
| GTCL06RV40-AS(P/S)(025)(LC)                                                         |
| GTCL06RV40-AT(P/S)(025)(LC)                                                         |
| GTCL06RV40-AV(P/S)(025)(LC)                                                         |

See page 5 for complete description of how the Amphenol part numbers are built.

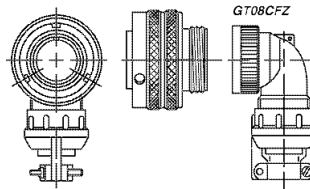
# GT Connectors for Bombardier

## Amphenol part numbers, 90° angle plugs

**GT08F**  
**90° Angle Plug**



**GT08CFZ**  
**90° Angle Plug**



|                             |
|-----------------------------|
| GTCL08F10SL-3(P/S)(025)(LC) |
| GTCL08F14S-6(P/S)(025)(LC)  |
| GTCL08F16S-1(P/S)(025)(LC)  |
| GTCL08F16-10(P/S)(025)(LC)  |
| GTCL08F18-1(P/S)(025)(LC)   |
| GTCL08F18-11(P/S)(025)(LC)  |
| GTCL08F18-12(P/S)(025)(LC)  |
| GTCL08F20-4(P/S)(025)(LC)   |
| GTCL08F20-29(P/S)(025)(LC)  |
| GTCL08F22-2(P/S)(025)(LC)   |
| GTCL08F22-14(P/S)(025)(LC)  |
| GTCL08F24-22(P/S)(025)(LC)  |
| GTCL08F24-96(P/S)(025)(LC)  |
| GTCL08F28-6(P/S)(025)(LC)   |
| GTCL08F28-21(P/S)(025)(LC)  |
| GTCL08F28-22(P/S)(025)(LC)  |
| GTCL08F28-84(P/S)(025)(LC)  |
| GTCL08F32-AF(P/S)(025)(LC)  |
| GTCL08F36-10(P/S)(025)(LC)  |
| GTCL08F40-35(P/S)(025)(LC)  |
| GTCL08F40-56(P/S)(025)(LC)  |
| GTCL08F40-AP(P/S)(025)(LC)  |
| GTCL08F40-AS(P/S)(025)(LC)  |
| GTCL08F40-AT(P/S)(025)(LC)  |
| GTCL08F40-AV(P/S)(025)(LC)  |

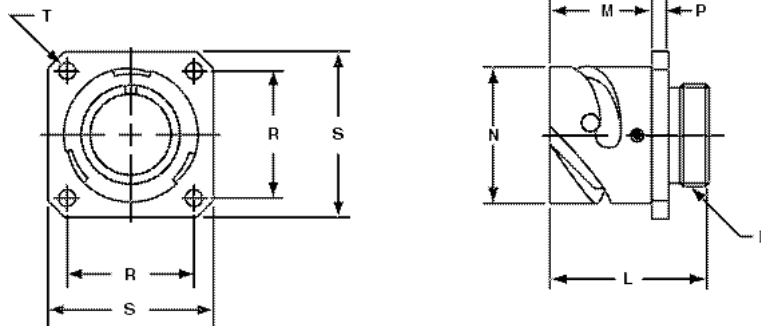
|                               |
|-------------------------------|
| GTCL08CFZ10SL-3(P/S)(025)(LC) |
| GTCL08CFZ14S-6(P/S)(025)(LC)  |
| GTCL08CFZ16S-1(P/S)(025)(LC)  |
| GTCL08CFZ16-10(P/S)(025)(LC)  |
| GTCL08CFZ18-1(P/S)(025)(LC)   |
| GTCL08CFZ18-11(P/S)(025)(LC)  |
| GTCL08CFZ18-12(P/S)(025)(LC)  |
| GTCL08CFZ20-4(P/S)(025)(LC)   |
| GTCL08CFZ20-29(P/S)(025)(LC)  |
| GTCL08CFZ22-2(P/S)(025)(LC)   |
| GTCL08CFZ22-14(P/S)(025)(LC)  |
| GTCL08CFZ24-22(P/S)(025)(LC)  |
| GTCL08CFZ24-96(P/S)(025)(LC)  |
| GTCL08CFZ28-6(P/S)(025)(LC)   |
| GTCL08CFZ28-21(P/S)(025)(LC)  |
| GTCL08CFZ28-22(P/S)(025)(LC)  |
| GTCL08CFZ28-84(P/S)(025)(LC)  |
| GTCL08CFZ32-AF(P/S)(025)(LC)  |
| GTCL08CFZ36-10(P/S)(025)(LC)  |
| GTCL08CFZ40-35(P/S)(025)(LC)  |
| GTCL08CFZ40-56(P/S)(025)(LC)  |
| GTCL08CFZ40-AP(P/S)(025)(LC)  |
| GTCL08CFZ40-AS(P/S)(025)(LC)  |
| GTCL08CFZ40-AT(P/S)(025)(LC)  |
| GTCL08CFZ40-AV(P/S)(025)(LC)  |

See page 5 for complete description of how the Amphenol part numbers are built.

# GT030 for Bombardier

## square flange receptacle for rear panel mounting

- Four through mounting holes or optional threaded holes
- Threaded rear to accept accessory attachment
- Environment proof when mounted with a proper sealing gasket (see page 16)



Inches

| Shell Size | B<br>Thread<br>Class 2A | L<br>± .012 | M<br>+ .016<br>- .000 | N<br>+ .000<br>- .006 | P<br>± .008 | R<br>± .004 | S<br>± .012 | T<br>+ .004<br>- .000 |
|------------|-------------------------|-------------|-----------------------|-----------------------|-------------|-------------|-------------|-----------------------|
| 10SL       | .6250-24UNEF            | 1.087       | .717                  | .717                  | .110        | .717        | 1.000       | .126                  |
| 14S        | .7500-20UNEF            | 1.087       | .717                  | .969                  | .126        | .906        | 1.181       | .126                  |
| 16S        | .8750-20UNEF            | 1.087       | .717                  | 1.079                 | .126        | .969        | 1.280       | .126                  |
| 16         | .8750-20UNEF            | 1.331       | .846                  | 1.079                 | .126        | .969        | 1.280       | .126                  |
| 18         | 1.0000-20UNEF           | 1.331       | .907                  | 1.213                 | .157        | 1.063       | 1.378       | .126                  |
| 20         | 1.1250-18UNEF           | 1.331       | .907                  | 1.346                 | .157        | 1.157       | 1.496       | .126                  |
| 22         | 1.2500-18UNEF           | 1.331       | .907                  | 1.472                 | .157        | 1.252       | 1.614       | .126                  |
| 24         | 1.3750-18UNEF           | 1.331       | .907                  | 1.610                 | .157        | 1.374       | 1.752       | .146                  |
| 28         | 1.6250-18UNEF           | 1.406       | .947                  | 1.839                 | .157        | 1.563       | 2.000       | .146                  |
| 32         | 1.8750-16UN             | 1.469       | .947                  | 2.102                 | .157        | 1.752       | 2.244       | .169                  |
| 36         | 2.0625-16UN             | 1.469       | .947                  | 2.346                 | .157        | 1.937       | 2.500       | .169                  |
| 40         | 2.3125-16UN             | 1.469       | .947                  | 2.579                 | .157        | 2.185       | 2.752       | .169                  |

Millimeters

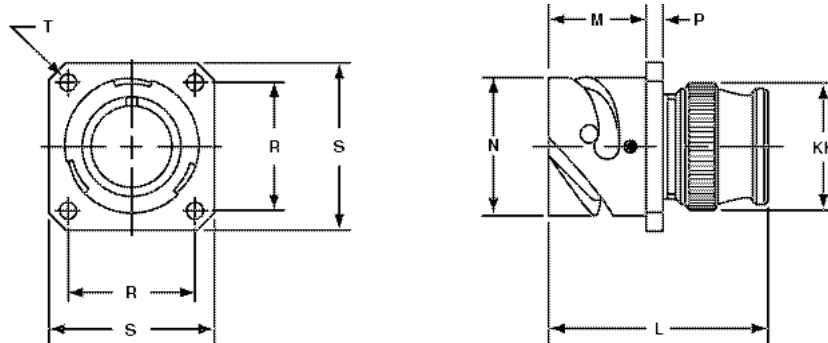
| Shell Size | L<br>± 0.3 | M<br>+ 0.4<br>- 0.0 | N<br>+ 0.00<br>- 0.15 | P<br>± 0.2 | R<br>± 0.1 | S<br>± 0.3 | T<br>+ 0.1<br>- 0.0 |
|------------|------------|---------------------|-----------------------|------------|------------|------------|---------------------|
| 10SL       | 27.6       | 18.2                | 18.2                  | 2.8        | 18.2       | 25.4       | 3.2                 |
| 14S        | 27.6       | 18.2                | 24.6                  | 3.2        | 23.0       | 30.0       | 3.2                 |
| 16S        | 27.6       | 18.2                | 27.4                  | 3.2        | 24.6       | 32.5       | 3.2                 |
| 16         | 33.8       | 21.5                | 27.4                  | 3.2        | 24.6       | 32.5       | 3.2                 |
| 18         | 33.8       | 23.05               | 30.8                  | 4.0        | 27.0       | 35.0       | 3.2                 |
| 20         | 33.8       | 23.05               | 34.2                  | 4.0        | 29.4       | 38.0       | 3.2                 |
| 22         | 33.8       | 23.05               | 37.4                  | 4.0        | 31.8       | 41.0       | 3.2                 |
| 24         | 33.8       | 23.05               | 40.9                  | 4.0        | 34.9       | 44.5       | 3.7                 |
| 28         | 35.7       | 24.05               | 46.7                  | 4.0        | 39.7       | 50.8       | 3.7                 |
| 32         | 37.3       | 24.05               | 53.4                  | 4.0        | 44.5       | 57.0       | 4.3                 |
| 36         | 37.3       | 24.05               | 59.6                  | 4.0        | 49.2       | 63.5       | 4.3                 |
| 40         | 37.3       | 24.05               | 65.5                  | 4.0        | 55.5       | 69.9       | 4.3                 |

All dimensions for reference only.

# GT030RV for Bombardier

## square flange receptacle for rear panel mounting

- Four through mounting holes or optional threaded holes
- With wire sealing grommet for individual wires
- Environment proof



Inches

| Shell Size | L<br>Max. | M<br>+ .016<br>- .000 | N<br>+ .000<br>- .006 | P<br>± .008 | R<br>± .004 | S<br>± .012 | T<br>+ .004<br>- .000 | KK<br>Max. |
|------------|-----------|-----------------------|-----------------------|-------------|-------------|-------------|-----------------------|------------|
| 10SL       | 1.890     | .717                  | .717                  | .110        | .717        | 1.000       | .126                  | .787       |
| 14S        | 1.890     | .717                  | .969                  | .126        | .906        | 1.181       | .126                  | .945       |
| 16S        | 1.890     | .717                  | 1.079                 | .126        | .969        | 1.280       | .126                  | 1.024      |
| 16         | 2.205     | .846                  | 1.079                 | .126        | .969        | 1.280       | .126                  | 1.024      |
| 18         | 2.244     | .907                  | 1.213                 | .157        | 1.063       | 1.378       | .126                  | 1.161      |
| 20         | 2.244     | .907                  | 1.346                 | .157        | 1.157       | 1.496       | .126                  | 1.299      |
| 22         | 2.244     | .907                  | 1.472                 | .157        | 1.252       | 1.614       | .126                  | 1.417      |
| 24         | 2.244     | .907                  | 1.610                 | .157        | 1.374       | 1.752       | .146                  | 1.575      |
| 28         | 2.244     | .947                  | 1.839                 | .157        | 1.563       | 2.000       | .146                  | 1.811      |
| 32         | 2.362     | .947                  | 2.102                 | .157        | 1.752       | 2.244       | .169                  | 2.028      |
| 36         | 2.362     | .947                  | 2.346                 | .157        | 1.937       | 2.500       | .169                  | 2.283      |
| 40         | 2.362     | .947                  | 2.579                 | .157        | 2.185       | 2.752       | .169                  | 2.539      |

Millimeters

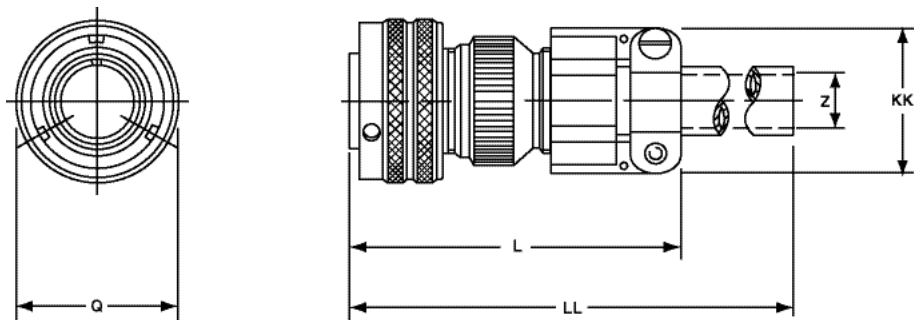
| Shell Size | L<br>Max. | M<br>+ 0.4<br>- 0.0 | N<br>+ 0.00<br>- 0.15 | P<br>± 0.2 | R<br>± 0.1 | S<br>± 0.3 | T<br>+ 0.1<br>- 0.0 | KK<br>Max. |
|------------|-----------|---------------------|-----------------------|------------|------------|------------|---------------------|------------|
| 10SL       | 48.0      | 18.20               | 18.2                  | 2.8        | 18.2       | 25.4       | 3.2                 | 20.0       |
| 14S        | 48.0      | 18.20               | 24.6                  | 3.2        | 23.0       | 30.0       | 3.2                 | 24.0       |
| 16S        | 48.0      | 18.20               | 27.4                  | 3.2        | 24.6       | 32.5       | 3.2                 | 26.0       |
| 16         | 56.0      | 21.50               | 27.4                  | 3.2        | 24.6       | 32.5       | 3.2                 | 26.0       |
| 18         | 57.0      | 23.05               | 30.8                  | 4.0        | 27.0       | 35.0       | 3.2                 | 29.5       |
| 20         | 57.0      | 23.05               | 34.2                  | 4.0        | 29.4       | 38.0       | 3.2                 | 33.0       |
| 22         | 57.0      | 23.05               | 37.4                  | 4.0        | 31.8       | 41.0       | 3.2                 | 36.0       |
| 24         | 57.0      | 23.05               | 40.9                  | 4.0        | 34.9       | 44.5       | 3.7                 | 40.0       |
| 28         | 57.0      | 24.05               | 46.7                  | 4.0        | 39.7       | 50.8       | 3.7                 | 46.0       |
| 32         | 60.0      | 24.05               | 53.4                  | 4.0        | 44.5       | 57.0       | 4.3                 | 51.5       |
| 36         | 60.0      | 24.05               | 59.6                  | 4.0        | 49.2       | 63.5       | 4.3                 | 58.0       |
| 40         | 60.0      | 24.05               | 65.5                  | 4.0        | 55.5       | 69.9       | 4.3                 | 64.5       |

All dimensions for reference only.

# GT06F for Bombardier

## straight plug

- With a wire sealing grommet and cable clamp
- For use with individual wires
- Environment proof



Inches

| Shell Size | L Max. | Q Max. | Z Nominal | KK Max. | LL Max. |
|------------|--------|--------|-----------|---------|---------|
| 10SL       | 2.165  | .898   | .220      | .894    | 4.724   |
| 14S        | 2.362  | 1.150  | .312      | 1.083   | 4.724   |
| 16S        | 2.756  | 1.260  | .437      | 1.181   | 4.724   |
| 16         | 2.756  | 1.260  | .437      | 1.181   | 4.921   |
| 18         | 2.953  | 1.437  | .562      | 1.299   | 4.921   |
| 20         | 2.953  | 1.571  | .625      | 1.476   | 4.921   |
| 22         | 2.953  | 1.697  | .625      | 1.476   | 4.921   |
| 24         | 3.543  | 1.835  | .750      | 1.705   | 4.921   |
| 28         | 3.543  | 2.102  | .750      | 1.705   | 4.921   |
| 32         | 3.543  | 2.366  | .937      | 2.035   | 4.921   |
| 36         | 3.937  | 2.610  | 1.250     | 2.283   | 5.315   |
| 40         | 4.921  | 2.850  | 1.375     | 2.579   | 5.709   |

Millimeters

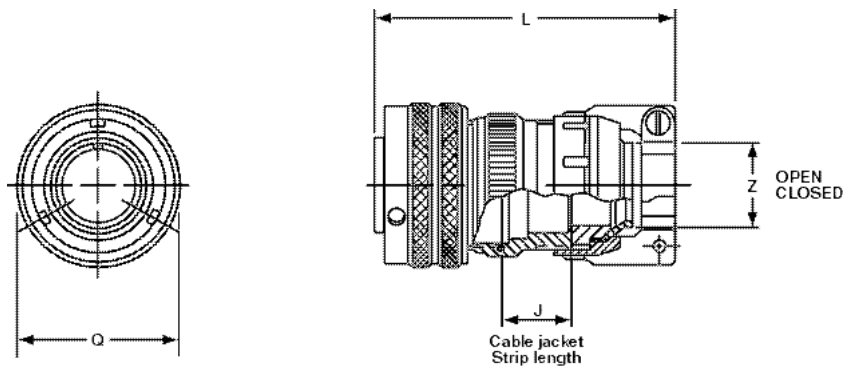
| Shell Size | L Max. | Q Max. | Z Nominal | KK Max. | LL Max. |
|------------|--------|--------|-----------|---------|---------|
| 10SL       | 55     | 22.8   | 5.58      | 22.7    | 120     |
| 14S        | 60     | 29.2   | 7.92      | 27.5    | 120     |
| 16S        | 70     | 32.0   | 11.09     | 30.0    | 120     |
| 16         | 70     | 32.0   | 11.09     | 30.0    | 125     |
| 18         | 75     | 36.5   | 14.27     | 33.0    | 125     |
| 20         | 75     | 39.9   | 15.87     | 37.5    | 125     |
| 22         | 75     | 43.1   | 15.87     | 37.5    | 125     |
| 24         | 90     | 46.6   | 19.05     | 43.3    | 125     |
| 28         | 90     | 53.4   | 19.05     | 43.3    | 125     |
| 32         | 90     | 60.1   | 23.79     | 51.7    | 125     |
| 36         | 100    | 66.3   | 31.75     | 58.0    | 135     |
| 40         | 125    | 72.4   | 34.92     | 65.5    | 145     |

All dimensions for reference only.

# GT06CFZ for Bombardier

## straight plug

- With a wire sealing grommet
- With a cable clamp and seal
- For use with jacketed cable
- Environment proof



Inches

| Shell Size | J Approx. | L Approx. | Q Max. | Z     |        |
|------------|-----------|-----------|--------|-------|--------|
|            |           |           |        | Open  | Closed |
| 10SL       | .551      | 2.752     | .898   | .312  | .094   |
| 14S        | .732      | 2.898     | 1.150  | .438  | .230   |
| 16S        | .732      | 2.898     | 1.260  | .531  | .315   |
| 16         | .653      | 3.216     | 1.260  | .531  | .315   |
| 18         | .705      | 3.307     | 1.437  | .625  | .378   |
| 20         | .705      | 3.311     | 1.571  | .748  | .445   |
| 22         | .744      | 3.350     | 1.697  | .748  | .445   |
| 24         | .689      | 3.484     | 1.835  | .937  | .610   |
| 28         | .921      | 3.736     | 2.102  | .937  | .610   |
| 32         | 1.016     | 4.142     | 2.366  | 1.250 | .921   |
| 36         | 1.031     | 4.390     | 2.610  | 1.378 | .921   |
| 40         | 1.614     | 4.640     | 2.854  | 1.624 | 1.177  |

Millimeters

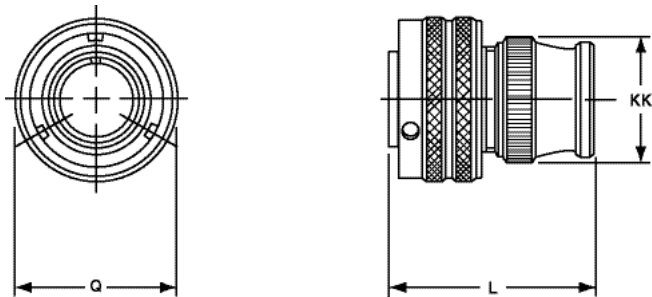
| Shell Size | J Approx. | L Approx. | Q Max. | Z     |        |
|------------|-----------|-----------|--------|-------|--------|
|            |           |           |        | Open  | Closed |
| 10SL       | 14.0      | 69.6      | 22.8   | 7.93  | 2.38   |
| 14S        | 18.6      | 73.6      | 29.2   | 11.12 | 5.84   |
| 16S        | 18.6      | 73.6      | 32.0   | 13.48 | 8.00   |
| 16         | 16.6      | 81.7      | 32.0   | 13.48 | 8.00   |
| 18         | 17.9      | 84.0      | 36.5   | 15.87 | 9.60   |
| 20         | 17.9      | 84.1      | 39.9   | 19.00 | 11.30  |
| 22         | 18.9      | 85.1      | 43.1   | 19.00 | 11.30  |
| 24         | 17.5      | 88.5      | 46.6   | 23.80 | 15.50  |
| 28         | 23.4      | 94.9      | 53.4   | 23.80 | 15.50  |
| 32         | 25.8      | 105.2     | 60.1   | 31.75 | 23.40  |
| 36         | 26.2      | 111.5     | 66.3   | 35.00 | 23.40  |
| 40         | 41.0      | 111.5     | 72.5   | 41.25 | 29.90  |

All dimensions for reference only.

# GT06RV for Bombardier

## straight plug

- With a wire sealing grommet
- For use with individual wires
- Environment proof



Inches

| Shell Size | L Max. | Q Max. | KK Max. |
|------------|--------|--------|---------|
| 10SL       | 1.417  | .898   | .787    |
| 14S        | 1.437  | 1.150  | .945    |
| 16S        | 1.437  | 1.260  | 1.024   |
| 16         | 1.929  | 1.260  | 1.024   |
| 18         | 1.929  | 1.437  | 1.161   |
| 20         | 1.969  | 1.571  | 1.299   |
| 22         | 1.969  | 1.697  | 1.417   |
| 24         | 2.008  | 1.835  | 1.543   |
| 28         | 2.008  | 2.102  | 1.811   |
| 32         | 2.087  | 2.366  | 2.028   |
| 36         | 2.106  | 2.610  | 2.283   |
| 40         | 2.126  | 2.850  | 2.539   |

Millimeters

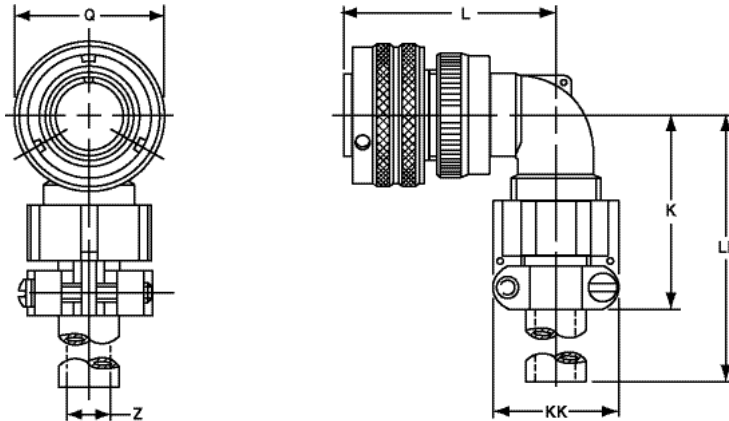
| Shell Size | L Max. | Q Max. | KK Max. |
|------------|--------|--------|---------|
| 10SL       | 36.0   | 22.8   | 20.0    |
| 14S        | 36.5   | 29.2   | 24.0    |
| 16S        | 36.5   | 32.0   | 26.0    |
| 16         | 49.0   | 32.0   | 26.0    |
| 18         | 49.0   | 36.5   | 29.5    |
| 20         | 50.0   | 39.9   | 33.0    |
| 22         | 50.0   | 43.1   | 36.0    |
| 24         | 51.0   | 46.6   | 40.0    |
| 28         | 51.0   | 53.4   | 46.0    |
| 32         | 53.0   | 60.1   | 51.5    |
| 36         | 53.5   | 66.3   | 58.0    |
| 40         | 54.0   | 72.4   | 64.5    |

All dimensions for reference only.

# GT08F for Bombardier

## 90° angle plug

- With a wire sealing grommet and cable clamp
- For use with individual wires
- Environment proof



Inches

| Shell Size | K Max. | L Max. | Q Max. | Z Max. | KK Max. | LL Max. |
|------------|--------|--------|--------|--------|---------|---------|
| 10SL       | 1.654  | 1.772  | .898   | .220   | .894    | 3.937   |
| 14S        | 1.654  | 1.850  | 1.150  | .312   | 1.083   | 3.937   |
| 16S        | 1.772  | 1.890  | 1.299  | .437   | 1.181   | 3.937   |
| 16         | 1.772  | 2.244  | 1.299  | .437   | 1.181   | 3.937   |
| 18         | 2.087  | 2.283  | 1.437  | .562   | 1.299   | 3.937   |
| 20         | 2.087  | 2.402  | 1.571  | .625   | 1.476   | 3.937   |
| 22         | 2.087  | 2.402  | 1.697  | .625   | 1.476   | 3.937   |
| 24         | 2.283  | 2.598  | 1.835  | .750   | 1.705   | 3.937   |
| 28         | 2.283  | 2.598  | 2.102  | .750   | 1.705   | 3.937   |
| 32         | 2.598  | 2.835  | 2.366  | .937   | 2.061   | 4.331   |
| 36         | 2.717  | 2.953  | 2.610  | 1.250  | 2.283   | 4.331   |
| 40         | 3.740  | 3.071  | 2.850  | 1.375  | 2.579   | 5.512   |

Millimeters

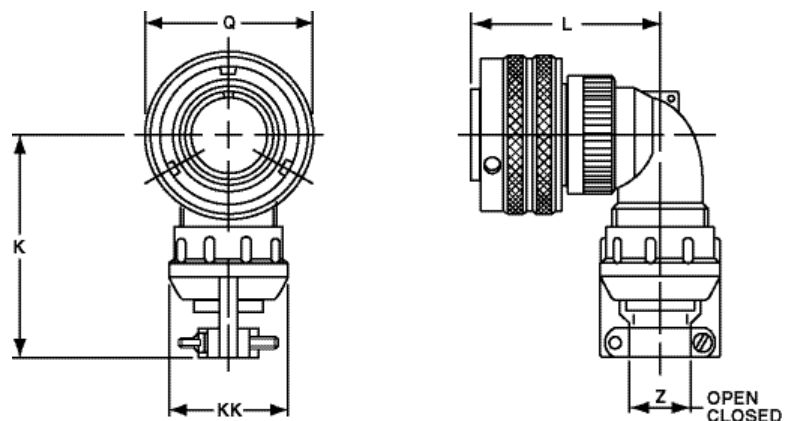
| Shell Size | K Max. | L Max. | Q Max. | Z Max. | KK Max. | LL Max. |
|------------|--------|--------|--------|--------|---------|---------|
| 10SL       | 42     | 45     | 22.8   | 5.58   | 22.7    | 100     |
| 14S        | 42     | 47     | 29.2   | 7.92   | 27.5    | 100     |
| 16S        | 45     | 48     | 33.0   | 11.09  | 30.0    | 100     |
| 16         | 45     | 57     | 33.0   | 11.09  | 30.0    | 100     |
| 18         | 53     | 58     | 36.5   | 14.27  | 33.0    | 100     |
| 20         | 53     | 61     | 39.9   | 15.87  | 37.5    | 100     |
| 22         | 53     | 61     | 43.1   | 15.87  | 37.5    | 100     |
| 24         | 58     | 66     | 46.6   | 19.05  | 43.3    | 100     |
| 28         | 58     | 66     | 53.4   | 19.05  | 43.3    | 100     |
| 32         | 66     | 72     | 60.1   | 23.79  | 51.7    | 110     |
| 36         | 69     | 75     | 66.3   | 31.75  | 58.0    | 110     |
| 40         | 95     | 78     | 72.4   | 34.92  | 65.5    | 140     |

All dimensions for reference only.

# GT08CFZ for Bombardier

## 90° angle plug

- With a wire sealing grommet
- Includes clamp to grip and seal jacketed cable
- Environment proof



Inches

| Shell Size* | K Max. | L Max. | Q Dia. | Z     |        | KK ± .008 |
|-------------|--------|--------|--------|-------|--------|-----------|
|             |        |        |        | Open  | Closed |           |
| 10SL        | 2.402  | 1.772  | .898   | .312  | .094   | .890      |
| 18          | 2.677  | 2.283  | 1.437  | .625  | .378   | 1.220     |
| 20          | 2.677  | 2.402  | 1.571  | .748  | .445   | 1.469     |
| 22          | 2.677  | 2.402  | 1.697  | .748  | .445   | 1.469     |
| 24          | 2.992  | 2.598  | 1.835  | .937  | .610   | 1.654     |
| 28          | 2.992  | 2.598  | 2.102  | .937  | .610   | 1.654     |
| 32          | 3.425  | 2.835  | 2.366  | 1.250 | .921   | 2.126     |
| 36          | 3.858  | 2.953  | 2.610  | 1.378 | .921   | 2.248     |
| 40          | 4.055  | 3.071  | 2.850  | 1.624 | 1.177  | 2.500     |

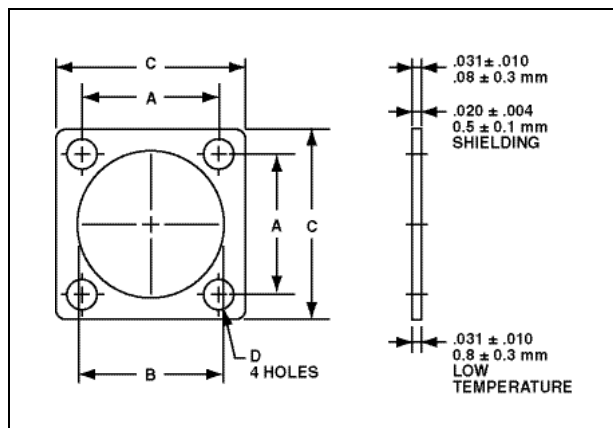
Millimeters

| Shell Size* | K Max. | L Max. | Q Dia. | Z     |        | KK ± 0.2 |
|-------------|--------|--------|--------|-------|--------|----------|
|             |        |        |        | Open  | Closed |          |
| 10SL        | 61     | 45     | 22.8   | 7.93  | 2.38   | 22.6     |
| 18          | 68     | 58     | 36.5   | 15.87 | 9.60   | 31.0     |
| 20          | 68     | 61     | 39.9   | 19.00 | 11.30  | 37.3     |
| 22          | 68     | 61     | 43.1   | 19.00 | 11.30  | 37.3     |
| 24          | 76     | 66     | 46.6   | 23.80 | 15.50  | 42.0     |
| 28          | 76     | 66     | 53.4   | 23.80 | 15.50  | 42.0     |
| 32          | 87     | 72     | 60.1   | 31.75 | 23.40  | 54.0     |
| 36          | 98     | 75     | 66.3   | 35.00 | 23.40  | 57.1     |
| 40          | 103    | 78     | 72.4   | 41.25 | 29.90  | 63.5     |

All dimensions for reference only.

\* 14S, 16S and 16 shell sizes are available upon request.

# GT Connector accessories for Bombardier 10-40450, 10-36675, 10-580649 sealing gaskets



## PLAIN FLAT GASKET

The Amphenol® plain flat gasket of synthetic rubber material is provided to take complete advantage of waterproof and pressure sealing features. It is for use with the flange mounted receptacle.



## SHIELDING GASKET

This flat gasket is provided to give the maximum in connector performance. Its special feature is in providing the maximum radio shielding under difficult conditions of high receiver sensitivity and low signal strength while retaining the sealing characteristics of the plain gasket. This gasket is for use with the flange mounting receptacle.



## LOW TEMPERATURE GASKET

This gasket is provided for applications where the major requirement is resistance to the injurious effects of extremely low temperature. Even at temperatures as low as -67°F this gasket retains its resiliency and will seal a pressure differential of 30 psi.

Additional versions of gaskets are available including low smoke zero halogen, and also high temperature and conductive types. Consult Amphenol Industrial Operations, Sidney NY, for further information.

| Installation Dimensions |             |                                            |                                          |                       |             |
|-------------------------|-------------|--------------------------------------------|------------------------------------------|-----------------------|-------------|
| MS Shell Size           | A<br>± .010 | Front Panel Versions B<br>+ .016<br>- .000 | Rear Panel Version B<br>+ .016<br>- .000 | C<br>+ .016<br>- .000 | D<br>± .010 |
| 10SL                    | .719        | .625                                       | .724                                     | 1.000                 | .172        |
| 14S                     | .906        | .875                                       | .976                                     | 1.188                 | .172        |
| 16S                     | .969        | 1.000                                      | 1.087                                    | 1.281                 | .172        |
| 16                      | .969        | 1.000                                      | 1.087                                    | 1.281                 | .172        |
| 18                      | 1.063       | 1.125                                      | 1.220                                    | 1.375                 | .203        |
| 20                      | 1.156       | 1.250                                      | 1.354                                    | 1.500                 | .203        |
| 22                      | 1.250       | 1.375                                      | 1.480                                    | 1.625                 | .203        |
| 24                      | 1.375       | 1.500                                      | 1.618                                    | 1.750                 | .203        |
| 28                      | 1.563       | 1.750                                      | 1.846                                    | 2.000                 | .203        |
| 32                      | 1.750       | 2.000                                      | 2.110                                    | 2.250                 | .219        |
| 36                      | 1.938       | 2.188                                      | 2.354                                    | 2.500                 | .219        |
| 40                      | 2.188       | 2.438                                      | 2.587                                    | 2.750                 | .219        |

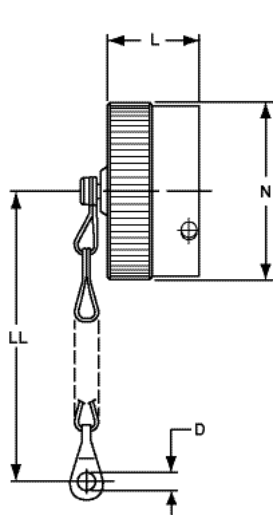
| Order Data for Front Panel Mount Gaskets |                               |                                     |                                  |
|------------------------------------------|-------------------------------|-------------------------------------|----------------------------------|
| Front Panel Plain Version                | Front Panel Shielding Version | Front Panel Low Temperature Version | Front Panel Low Smoke ZH Version |
| 10-40450-10                              | 10-40450-10S                  | 10-36675-10                         | LS-40450-10                      |
| 10-40450-14                              | 10-40450-14S                  | 10-36675-14                         | LS-40450-14                      |
| 10-40450-16                              | 10-40450-16S                  | 10-36675-16                         | LS-40450-16                      |
| 10-40450-18                              | 10-40450-18S                  | 10-36675-18                         | LS-40450-18                      |
| 10-40450-20                              | 10-40450-20S                  | 10-36675-20                         | LS-40450-20                      |
| 10-40450-22                              | 10-40450-22S                  | 10-36675-22                         | LS-40450-22                      |
| 10-40450-24                              | 10-40450-24S                  | 10-36675-24                         | LS-40450-24                      |
| 10-40450-28                              | 10-40450-28S                  | 10-36675-28                         | LS-40450-26                      |
| 10-40450-32                              | 10-40450-32S                  | 10-36675-32                         | LS-40450-32                      |
| 10-40450-36                              | 10-40450-36S                  | 10-36675-36                         | LS-40450-36                      |
| 10-40450-40                              | 10-40450-40S                  | 10-36675-40                         | LS-40450-40                      |

| Installation Dimensions |            |                                          |                                        |                     |            |
|-------------------------|------------|------------------------------------------|----------------------------------------|---------------------|------------|
| MS Shell Size           | A<br>± 0.2 | Front Panel Versions B<br>+ 0.4<br>- 0.0 | Rear Panel Version B<br>+ 0.4<br>- 0.0 | C<br>+ 0.4<br>- 0.0 | D<br>± 0.2 |
| 10SL                    | 18.2       | 15.9                                     | 18.4                                   | 25.4                | 4.36       |
| 14S                     | 23.0       | 22.2                                     | 24.8                                   | 30.2                | 4.36       |
| 16S                     | 24.6       | 25.4                                     | 27.6                                   | 32.5                | 4.36       |
| 16                      | 24.6       | 25.4                                     | 27.6                                   | 32.5                | 4.36       |
| 18                      | 27.0       | 28.57                                    | 31.0                                   | 35.0                | 5.15       |
| 20                      | 29.4       | 31.75                                    | 34.4                                   | 38.1                | 5.15       |
| 22                      | 31.8       | 34.9                                     | 37.6                                   | 41.2                | 5.15       |
| 24                      | 34.9       | 38.1                                     | 41.1                                   | 44.5                | 5.15       |
| 28                      | 39.7       | 44.45                                    | 46.9                                   | 50.8                | 5.15       |
| 32                      | 44.5       | 50.8                                     | 53.6                                   | 57.2                | 5.56       |
| 36                      | 49.2       | 55.57                                    | 59.8                                   | 63.5                | 5.56       |
| 40                      | 55.6       | 61.92                                    | 65.7                                   | 69.9                | 5.56       |

| Order Data for Rear Panel Mount Gaskets |                                 |
|-----------------------------------------|---------------------------------|
| Rear Panel Plain Version                | Rear Panel Low Smoke ZH Version |
| 10-580649-11                            | LS-580649-11                    |
| 10-580649-14                            | LS-580649-14                    |
| 10-580649-16                            | LS-580649-16                    |
| 10-580649-18                            | LS-580649-18                    |
| 10-580649-20                            | LS-580649-20                    |
| 10-580649-22                            | LS-580649-22                    |
| 10-580649-24                            | LS-580649-24                    |
| 10-580649-26                            | LS-580649-26                    |
| 10-580649-32                            | LS-580649-32                    |
| 10-580649-36                            | LS-580649-36                    |
| 10-580649-40                            | LS-580649-40                    |

# GT Connector accessories for Bombardier receptacle protection caps

- Protective metal caps which seal the front of receptacles
- Includes a chain for retention of the cap at the required location



\* 10-580902-XXY

\* To complete order number, add shell size and suffix number. For example, shell size 11 with black zinc cobalt plate would be 10-580902-11Y.

Inches

| Shell Size | D<br>+ .020<br>- .000 | L<br>Max. | N<br>Max. | LL<br>Approx. |
|------------|-----------------------|-----------|-----------|---------------|
| 11         | .173                  | .700      | .905      | 5.000         |
| 14         | .173                  | .700      | 1.181     | 5.000         |
| 16         | .173                  | .700      | 1.280     | 5.000         |
| 17         | .173                  | .900      | 1.280     | 5.000         |
| 18         | .173                  | .900      | 1.457     | 5.000         |
| 20         | .173                  | .900      | 1.594     | 5.000         |
| 22         | .173                  | .900      | 1.713     | 5.000         |
| 24         | .173                  | .900      | 1.850     | 5.000         |
| 28         | .220                  | .900      | 2.126     | 7.480         |
| 32         | .261                  | .900      | 2.382     | 7.480         |
| 36         | .261                  | .900      | 2.638     | 7.480         |
| 40         | .261                  | .900      | 2.874     | 7.480         |

Millimeters

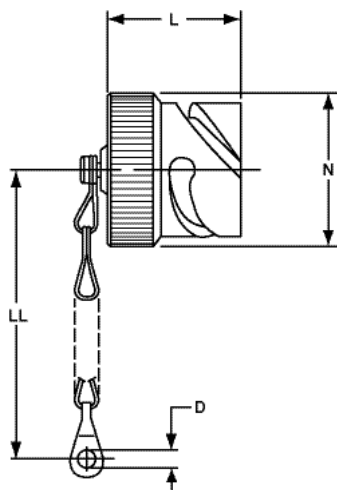
| Shell Size | D<br>+ 0.5<br>- 0.0 | L<br>Max. | N<br>Max. | LL<br>Approx. |
|------------|---------------------|-----------|-----------|---------------|
| 11         | 4.4                 | 17.8      | 23.0      | 127           |
| 14         | 4.4                 | 17.8      | 30.0      | 127           |
| 16         | 4.4                 | 17.8      | 32.5      | 127           |
| 17         | 4.4                 | 22.9      | 32.5      | 127           |
| 18         | 4.4                 | 22.9      | 37.0      | 127           |
| 20         | 4.4                 | 22.9      | 40.5      | 127           |
| 22         | 4.4                 | 22.9      | 43.5      | 127           |
| 24         | 4.4                 | 22.9      | 47.0      | 127           |
| 28         | 5.6                 | 22.9      | 54.0      | 190           |
| 32         | 5.6                 | 22.9      | 60.5      | 190           |
| 36         | 5.6                 | 22.9      | 67.0      | 175           |
| 40         | 5.6                 | 22.9      | 73.0      | 190           |

All dimensions for reference only.

# GT Connector accessories for Bombardier plug protection caps

- Protective metal caps which seal the front of plugs
- Includes a chain for retention of the cap at the required location

\* 10-580903-XXY



\* To complete order number, add shell size and suffix number. For example, shell size 11 with black zinc cobalt plate would be 10-580903-11Y.

## Inches

| Shell Size | D<br>+ .020<br>- .000 | L<br>Max. | N<br>Max. | LL<br>Approx. |
|------------|-----------------------|-----------|-----------|---------------|
| 11         | .157                  | .945      | .807      | 5.000         |
| 14         | .157                  | .945      | 1.059     | 5.000         |
| 16         | .157                  | .945      | 1.169     | 5.000         |
| 17         | .157                  | .945      | 1.169     | 5.000         |
| 18         | .157                  | .945      | 1.303     | 5.000         |
| 20         | .189                  | 1.260     | 1.437     | 5.520         |
| 22         | .189                  | 1.260     | 1.563     | 5.520         |
| 24         | .189                  | 1.260     | 1.701     | 5.520         |
| 28         | .220                  | 1.260     | 1.929     | 7.480         |
| 32         | .261                  | 1.260     | 2.193     | 7.480         |
| 36         | .261                  | 1.260     | 2.437     | 7.480         |
| 40         | .261                  | 1.260     | 2.665     | 7.480         |

## Millimeters

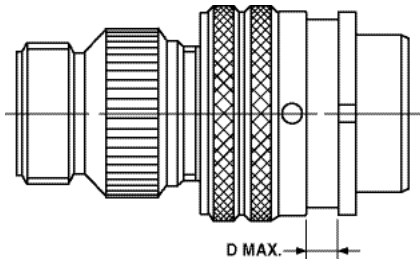
| Shell Size | D<br>+ 0.5<br>- 0.0 | L<br>Max. | N<br>Max. | LL<br>Approx. |
|------------|---------------------|-----------|-----------|---------------|
| 11         | 4.0                 | 24        | 20.5      | 127           |
| 14         | 4.0                 | 24        | 26.9      | 127           |
| 16         | 4.0                 | 24        | 29.7      | 127           |
| 17         | 4.0                 | 24        | 29.7      | 127           |
| 18         | 4.0                 | 24        | 33.1      | 127           |
| 20         | 4.8                 | 32        | 36.5      | 140           |
| 22         | 4.8                 | 32        | 39.7      | 140           |
| 24         | 4.8                 | 32        | 43.2      | 140           |
| 28         | 4.8                 | 32        | 49.0      | 190           |
| 32         | 5.6                 | 32        | 55.7      | 190           |
| 36         | 5.6                 | 32        | 61.9      | 190           |
| 40         | 5.6                 | 32        | 67.7      | 190           |

All dimensions for reference only.

# GT accessories for Bombardier

rear mounting data, panel cut-out dimensions, sealing plugs, sealing ranges, backshell torque forces

**REAR MOUNTING DATA  
MAXIMUM PANEL THICKNESS**



| Size | Dimension D |      |
|------|-------------|------|
|      | GT030       |      |
|      | Inches      | (mm) |
| 10SL | .303        | 7.70 |
| 14S  | .303        | 7.70 |
| 16S  | .303        | 7.70 |
| 16   | .242        | 6.15 |
| 18   | .303        | 7.70 |
| 20   | .303        | 7.70 |
| 22   | .303        | 7.70 |
| 24   | .303        | 7.70 |
| 28   | .343        | 8.70 |
| 32   | .309        | 7.85 |
| 36   | .309        | 7.85 |
| 40   | .309        | 7.85 |

**GROMMET HOLE  
SEALING RANGES**

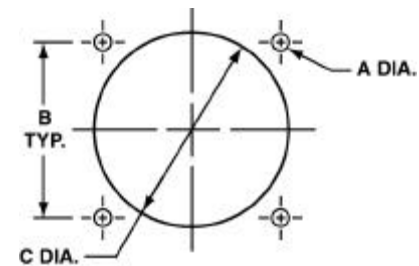
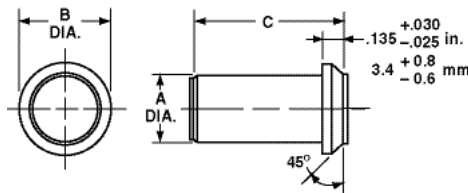
| Hole Size | Sealing Range |             |
|-----------|---------------|-------------|
|           | (mm)          | Inches      |
| 16        | 2.3 – 3.0     | .090 – .118 |
| 12        | 3.2 – 4.5     | .126 – .177 |
| 8         | 3.8 – 6.5     | .150 – .256 |
| 4         | 7.1 – 9.3     | .279 – .366 |
| 0         | 10.0 – 13.7   | .394 – .539 |

**RECOMMENDED  
TORQUE FORCES  
CONNECTOR BACKSHELLS**

| Size | In./Lb. Max. |
|------|--------------|
| 10SL | 26           |
| 14S  | 44           |
| 16   | 50           |
| 16S  | 50           |
| 18   | 55           |
| 20   | 65           |
| 22   | 85           |
| 24   | 90           |
| 28   | 114          |
| 32   | 120          |
| 36   | 153          |
| 40   | 170          |

## SEALING PLUG 10-405996-XX

Sealing plugs are used to fill unused holes in multi-holed grommet configurations.



**PANEL CUT-OUT DIMENSIONS**

| Order No.    | Contact Size | Wire Size | Color Code | Inches       |         |         |
|--------------|--------------|-----------|------------|--------------|---------|---------|
|              |              |           |            | A Dia. ±.010 | B ±.005 | C ±.010 |
| 10-405996-16 | 16           | 20-16     | Blue       | .083         | .133    | .564**  |
| 10-405996-12 | 12           | 14-12     | Yellow     | .121         | .171    | .564**  |
| 10-405996-8  | 8            | 10-8      | Red        | .185         | .315    | .470    |
| 10-405996-4  | 4            | 4-6       | Blue       | .310         | .415    | .470    |
| 10-405996-0  | 0            | 0-2       | Yellow     | .440         | .605    | 1.000   |

| Millimeters  |         |         |
|--------------|---------|---------|
| A Dia. ± 0.2 | B ± 0.1 | C ± 0.2 |
| 2.1          | 3.4     | 14.3*** |
| 3.1          | 4.3     | 14.3*** |
| 4.7          | 8.0     | 11.9    |
| 7.9          | 10.5    | 11.9    |
| 11.2         | 15.4    | 25.4    |

| Shell Size | A Dia. Hole Size | Connector Styles |                             |
|------------|------------------|------------------|-----------------------------|
|            |                  | 030<br>B ±.004   | Rear Mount<br>030<br>C Dia. |
| 10SL       | .126             | .717             | 1 3/4                       |
| 14S        | .126             | .906             | 1                           |
| 16S/16     | .126             | .969             | 1 1/8                       |
| 18         | .126             | 1.063            | 1 1/4                       |
| 20         | .126             | 1.157            | 1 3/8                       |
| 22         | .126             | 1.252            | 1 1/2                       |
| 24         | .146             | 1.374            | 1 5/8                       |
| 28         | .146             | 1.563            | 1 7/8                       |
| 32         | .169             | 1.752            | 2 1/8                       |
| 36         | .169             | 1.937            | 2 3/8                       |
| 40         | .169             | 2.185            | 2 5/8                       |

\*\* ± .020 (in.) \*\*\* ± 0.5 (mm)

# GT Connectors

## crimp contacts and application tools

Machined from copper alloys and silver-plated for maximum corrosion resistance, with a minimum milli-volt drop and a maximum current carrying capacity, the size 16 and 12 socket contacts are of the closed entry design. Crimp contacts are available for all MS insert arrangements and are identified with an Amphenol® proprietary number.

### CRIMP CONTACTS

| CRIMP CONTACT DATA |               |                             |               |                |                        | APPLICATION TOOLS            |                         |                              |                         |                              |                         |                              |                         |                                       |
|--------------------|---------------|-----------------------------|---------------|----------------|------------------------|------------------------------|-------------------------|------------------------------|-------------------------|------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------------|
| PART NUMBER        |               |                             |               | MATING<br>SIZE | WIRE<br>WELL<br>SUFFIX | Crimp Tools                  | Positioner/<br>Die Set  | Locator/<br>Color            |                         |                              |                         |                              |                         |                                       |
| PIN CONTACT        |               | SOCKET CONTACT (split leaf) |               |                |                        |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| SILVER             | GOLD("D")     | SILVER                      | GOLD("D")     |                |                        |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-40553           | 10-597160-15D | 10-597109-161               | 10-597109-16D | 16S            | 16-18-20               | Daniels AF8 or<br>Equivalent | TH29-1 or<br>Equivalent | Red                          |                         |                              |                         |                              |                         |                                       |
| 10-606014-40       | 10-597160-40D | 10-597109-401               | 10-597109-40D |                | 12-14                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-221      | 10-597160-19D | 10-597109-191               | 10-597109-19D |                | 14-16                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-291      | 10-597160-34D | 10-597109-341               | 10-597109-34D |                | 20-22                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-46       | 10-597160-46D | 10-597109-461               | 10-597109-46D |                | 20-24                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-40557           | 10-597160-16D | 10-597109-171               | 10-597109-17D | 16             | 16-18-20               |                              |                         | Daniels AF8 or<br>Equivalent | TH29-1 or<br>Equivalent | Pin - Blue<br>Socket - Green |                         |                              |                         |                                       |
| 10-606014-022      | 10-597160-22D | 10-597109-221               | 10-597109-22D |                | 12-14                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-171      | 10-597160-17D | 10-597109-141               | 10-597109-14D |                | 14-16                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-311      | 10-597160-33D | 10-597109-331               | 10-597109-33D |                | 20-22                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-361      | 10-597160-36D | 10-597109-361               | 10-597109-36D |                | 20-24                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-391      | 10-597160-39D | 10-597109-391               | 10-597109-39D |                | 24-26                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-43       | 10-597160-43D | 10-597109-431               | 10-597109-43D | 12             | 20-26                  |                              |                         |                              |                         | Daniels AF8 or<br>Equivalent | TH29-1 or<br>Equivalent | Pin - Blue<br>Socket - Green |                         |                                       |
| 10-606014-121      | 10-597160-12D | 10-597109-131               | 10-597109-13D |                | 12-14                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-231      | 10-597160-23D | 10-597109-231               | 10-597109-23D |                | 8-10                   |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-251      | 10-597160-26D | 10-597109-261               | 10-597109-26D |                | 10-12                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-271      | 10-597160-27D | 10-597109-271               | 10-597109-27D |                | 14-16-18               |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-261      | 10-597160-24D | 10-597109-241               | 10-597109-24D |                | 18-20                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-201      | 10-597160-20D | 10-597109-201               | 10-597109-20D | 8              | 20-22                  |                              |                         |                              |                         |                              |                         | Daniels AF8 or<br>Equivalent | TH29-1 or<br>Equivalent | Pin - Blue<br>Socket - Green          |
| 10-40792           | 10-597160-8D  | 10-40793                    | 10-597109-8D  |                | 12-14                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-41       | 10-597160-41D | 10-597109-411               | 10-597109-41D |                | 8                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-321      | 10-597160-28D | 10-606015-321               | 10-597109-28D |                | 6                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-381      | 10-597160-38D | 10-597109-381               | 10-597109-38D |                | 10-12                  |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-40564           | 10-597160-4D  | 10-40565                    | 10-597109-4D  | 4              | 12-14                  | Pico 400BHD                  | Pico 414DA-8N           |                              |                         |                              |                         |                              |                         | Pico<br>Pin - 4025<br>Socket - 4026   |
| 10-606014-58       | 10-597160-58D | 10-597109-581               | 10-597109-58D |                | 4                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-331      | 10-597160-35D | 10-597109-351               | 10-597109-35D |                | 6                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-44       | 10-597160-44D | 10-606015-441               | 10-597109-44D |                | 8                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-45       | 10-597160-45D | 10-597109-451               | 10-597109-45D |                | 10                     |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-581806-000      | 10-597160-1D  | 10-581808-000               | 10-597159-1D  | 0              | 16                     |                              |                         | Pico 400BHD                  | Pico 414DA-4N           |                              |                         |                              |                         | Pico 4043                             |
| 10-606014-341      | 10-597160-29D | 10-597109-291               | 10-597109-29D |                | 0                      |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-606014-351      | 10-597160-30D | 10-606015-351               | 10-597109-30D |                | 0-2                    |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
| 10-597276-48       | 10-597276-48D | 10-606015-48                | 10-597109-48D | 2/0            | 2/0                    |                              |                         |                              |                         | Pico 500                     | Pico 414DA-0N           |                              |                         | Pico<br>Pin - 4042-1<br>Socket - 4042 |
| 10-597276-47       | 10-597276-47D | 10-606015-47                | 10-597109-47D | 4/0            | 4/0                    |                              |                         |                              |                         |                              |                         |                              |                         |                                       |
|                    |               |                             |               |                |                        |                              |                         |                              |                         |                              | Pico 514DA4/<br>0N      |                              |                         |                                       |

# GT Connectors

## crimp contacts, cont.

**CRIMP CONTACTS**

| Mating Size | Wire Barrel Size | Allowable Wire Size | Test Current** Amps |
|-------------|------------------|---------------------|---------------------|
| 16 Short    | 16               | 16                  | 13                  |
|             |                  | 18                  | 10                  |
|             |                  | 20                  | 7.5                 |
|             |                  | 22                  | 5                   |
| 16 Long     | 16               | 16                  | 13                  |
|             |                  | 18                  | 10                  |
|             |                  | 20                  | 7.5                 |
|             |                  | 22                  | 5                   |
| 12          | 12               | 12                  | 23                  |
|             |                  | 14                  | 17                  |
| 8           | 8                | 8                   | 46                  |
|             |                  | 10                  | 33                  |
| 4           | 4                | 4                   | 80                  |
|             |                  | 6                   | 60                  |
| 0           | 0                | 0                   | 150                 |
|             |                  | 2                   | 125                 |

\*\* Contact ratings as stated are test ratings only. The connector may not withstand full rated current through all contacts continuously. Please note that the electrical data given is not an establishment of electrical safety factors. This is left entirely in the designer's hands as he can best determine which peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

**Table I**  
**MIL-SPEC CONTACT ARRANGEMENT**  
**SERVICE RATING**

| MS Service Rating | Recommended Operating Voltage* at Sea Level |          | Effective Creepage Distance Nom. | Mechanical Spacing Nom. |
|-------------------|---------------------------------------------|----------|----------------------------------|-------------------------|
|                   | DC                                          | AC (RMS) |                                  |                         |
| Inst.             | 250                                         | 200      | 1/16                             |                         |
| A                 | 700                                         | 500      | 1/8                              | 1/16                    |
| D                 | 1250                                        | 900      | 3/16                             | 1/8                     |
| E                 | 1750                                        | 1250     | 1/4                              | 3/16                    |
| B                 | 2450                                        | 1750     | 5/16                             | 1/4                     |
| C                 | 4200                                        | 3000     | 1                                | 5/16                    |

\* The values listed in Table I represent operating values which include a generous safety factor. It may be necessary for some applications to exceed the operating voltages listed here. If this is necessary, designers will find Table II useful for determining the degree to which the recommended values of Table I can be exceeded.

**Table II**  
**ALTITUDE VOLTAGE**  
**DERATING\*\* CHART**

| MS Service Rating | Nominal Distance |          | Standard Sea Level Conditions      |                       | Pressure Altitude † 50,000 Feet    |                       | Pressure Altitude † 70,000 Feet    |                       |
|-------------------|------------------|----------|------------------------------------|-----------------------|------------------------------------|-----------------------|------------------------------------|-----------------------|
|                   | Airspace         | Creepage | Minimum Flashover Voltage AC (RMS) | Test Voltage AC (RMS) | Minimum Flashover Voltage AC (RMS) | Test Voltage AC (RMS) | Minimum Flashover Voltage AC (RMS) | Test Voltage AC (RMS) |
| Inst.             | 1/32             | 1/16     | 1400                               | 1000                  | 550                                | 400                   | 325                                | 260                   |
| A                 | 1/16             | 1/8      | 2800                               | 2000                  | 800                                | 600                   | 450                                | 360                   |
| D                 | 1/8              | 3/16     | 3600                               | 2800                  | 900                                | 675                   | 500                                | 400                   |
| E                 | 3/16             | 1/4      | 4500                               | 3500                  | 1000                               | 750                   | 550                                | 440                   |
| B                 | 1/4              | 5/16     | 5700                               | 4500                  | 1100                               | 825                   | 600                                | 480                   |
| C                 | 5/16             | 1        | 8500                               | 7000                  | 1300                               | 975                   | 700                                | 560                   |

† Not corrected for changes in density due to variations in temperature

\*\* No attempt has been made to recommend operating voltages. The designer must determine his own operating voltage by the application of a safety factor to the above derating chart to compensate for circuit transients, surges, etc.