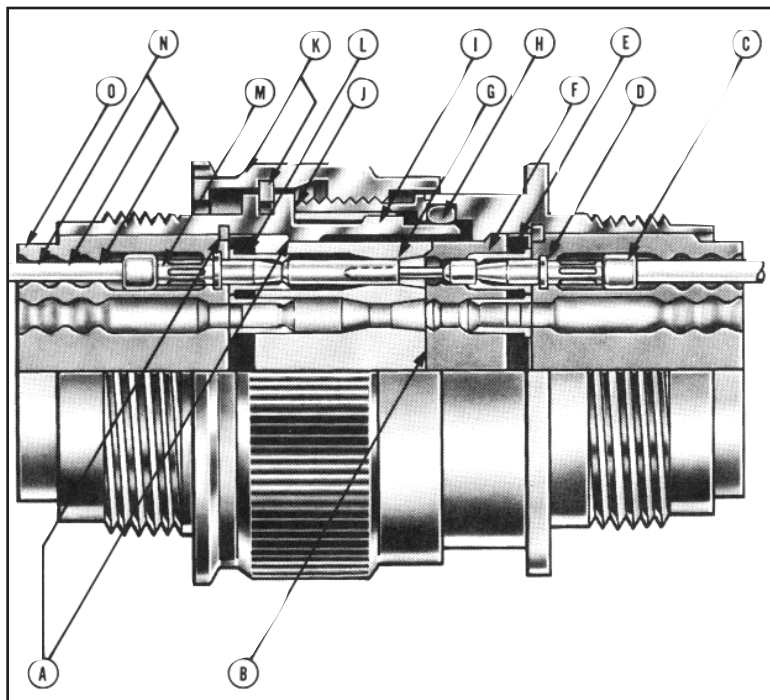


**GENERAL DESCRIPTION**

The C48 Series describes a family of connectors qualified to MIL-C-26500. While maintaining the MIL-C-26500 mating interface, this product has also been expanded to include qualifications to numerous Boeing specifications to satisfy general purpose requirements and unique product challenges for shielding, environmental sealing, fluid resistance, and vibration.



**Design Features**

- A. Positive Location Captivated Insert (Mechanical Interlock)
- B. Insert Face Seal
- C. Pin Contact, MIL-C-39029/31
- D. Contact Pressuring Seal
- E. Anti-Deflection Disc
- F. Resilient Pin Insert
- G. Insert Rim Seal
- H. Dynamic "O" Ring Shell Seal
- I. Five-Key Shell Polarization
- J. Metal-to-Metal Shoulder
- K. Bayonet or Threaded Coupling, Permanent Captivation
- L. Contact Retention Clip
- M. Socket Contact, MIL-C-39029/32
- N. Wire Sealing Risers
- O. Grommet

The expanded Cinch C48 product family offers numerous product options qualified to Boeing high-performance requirements and product solutions developed for alternate termination styles/low-profile packaging.

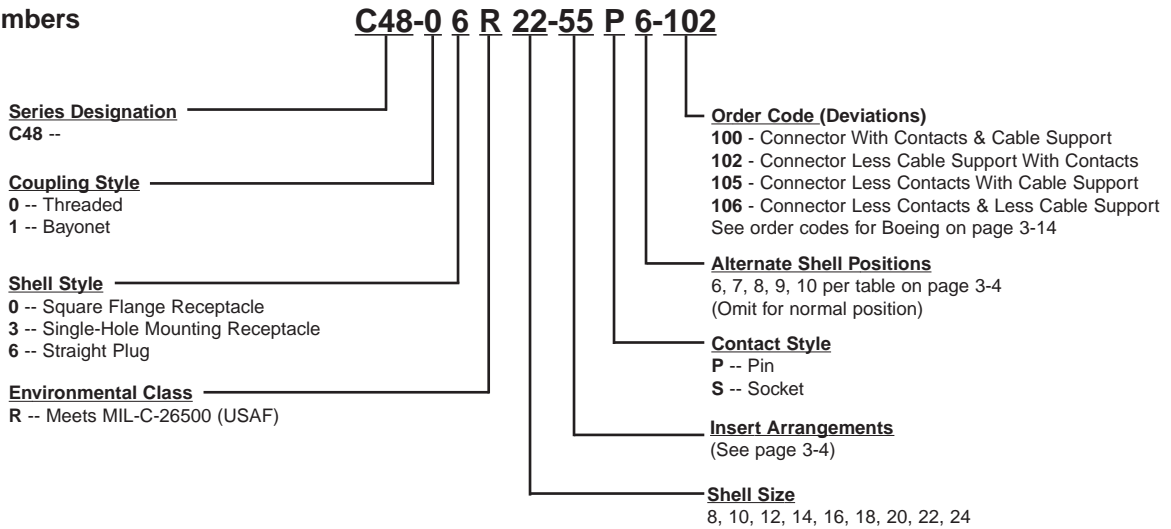
**Product Description**

**Cinch Series**

- |  |                                      |
|--|--------------------------------------|
| • Threaded non-decoupling design   | CN0966                               |
| • High-vibration bayonet plug with metal-to-metal bottoming shells   | C0909<br>CN1020                      |
| • Connectors for shell grounding / shielding effectiveness, non-rotating accessory teeth, and advanced fluid-resistance elastometers | CN0966<br>CN0967<br>CN1020<br>CN1021 |
| • Firewall Conformance   | CN0966<br>CN0967                     |
| • Low-profile connectors - crimp - removable contacts  | CN0915                               |
| • Low-profile connectors - fixed contacts / alternate termination styles   | CN0942<br>CN0944                     |



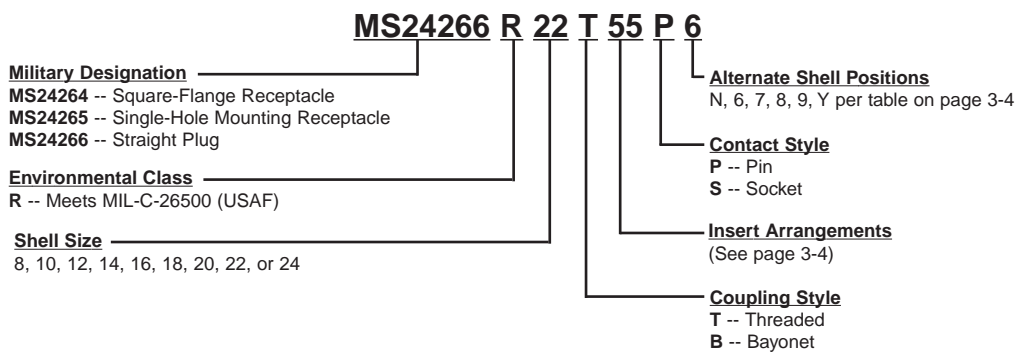
**Cinch Numbers**



**Military Standard Part Numbers**

You can use MS\* as well as C48 Series part numbers when ordering C48 Series connectors.

\*MS part numbers are supplied less cable support. If cable support is desired, it must be ordered separately.



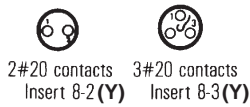
Part numbers for the contacts and assembly tools are listed on page 3-12.

# C48 Series

## Inserts Available (Showing Front Face of Socket Inserts)



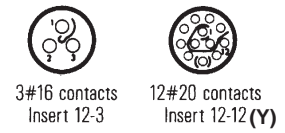
### Shell Size-8



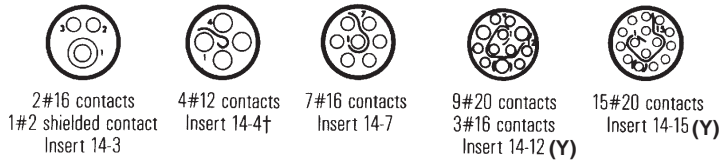
### Shell Size-10



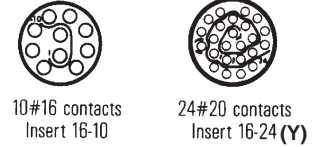
### Shell Size-12



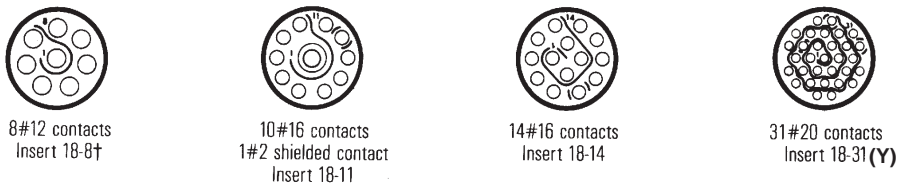
### Shell Size-14



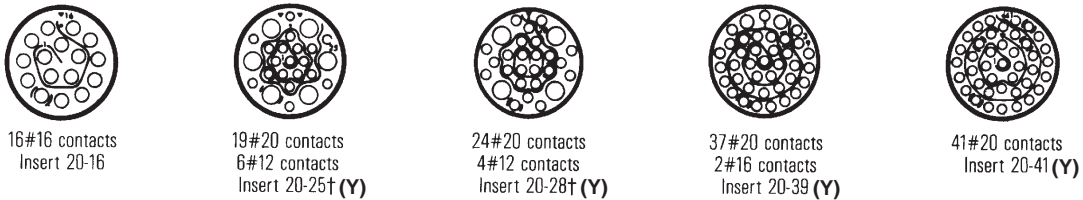
### Shell Size-16



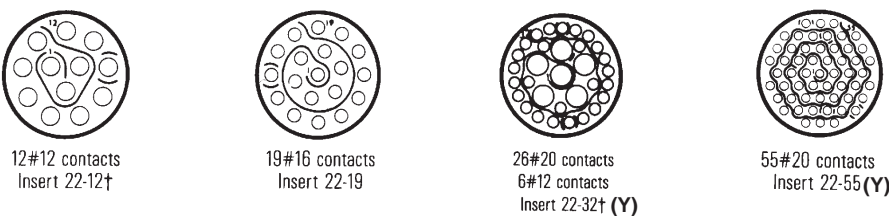
### Shell Size-18



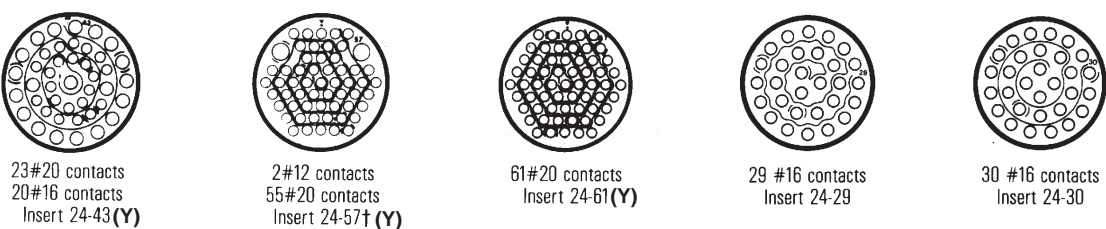
### Shell Size-20



### Shell Size-22

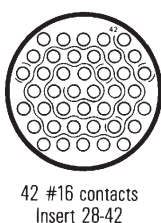


### Shell Size-24



### Shell Size-28

### CN096X CN102X Series Only

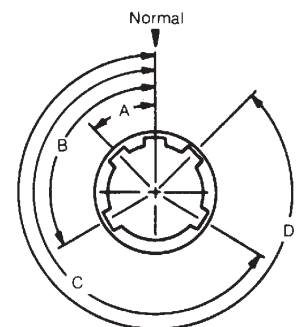


### Alternate Shell Positions (Front face of receptacle shown)

NOTE: Alternate positions 6 through Y incorporate special shell polarizing key and keyways. All inserts remain in the normal position.

| Positions  | For Connector Size 8 and 10 |      |      |      | For Connector Size 12, 14, 16, 18, 20, 22, 24, and 28 |      |      |      |
|------------|-----------------------------|------|------|------|---|------|------|------|
|            | A                           | B    | C    | D    | A   | B    | C    | D    |
| Normal (N) | 105°                        | 140° | 215° | 265° | 105°  | 140° | 215° | 265° |
| 6          | 102°                        | 132° | 248° | 320° | 18°   | 149° | 192° | 259° |
| 7          | 80°                         | 118° | 230° | 312° | 92°   | 152° | 222° | 342° |
| 8          | 35°                         | 140° | 205° | 275° | 84°   | 152° | 204° | 334° |
| 9          | 64°                         | 155° | 234° | 304° | 24°   | 135° | 199° | 240° |
| 10 or Y*   | 25°                         | 115° | 220° | 270° | 98°   | 152° | 268° | 338° |

\*Not available in Size 8 Connector. See individual part number systems.



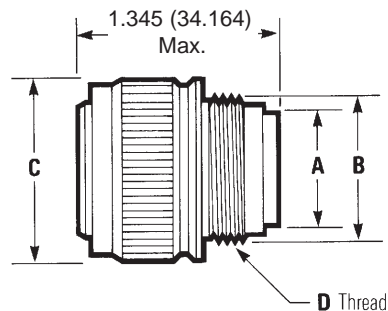
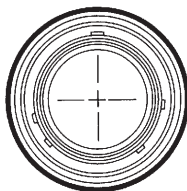
† = #1 shielded contact is interchangeable with #12 power contact.  
(Y) = Available in Boeing Insert Style.

# C48 Series Plug Connectors



## Threaded Coupling

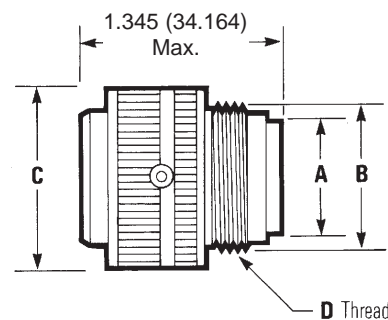
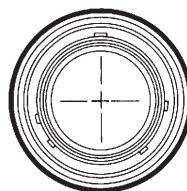
C48-06RXX-XXXX  
MS24266RXXTXXXX  
BACC45FS<sup>1</sup>



3

## Bayonet Coupling

C48-16RXX-XXXX  
MS24266RXXBXXXX  
BACC45FT<sup>1</sup>



## Dimensions

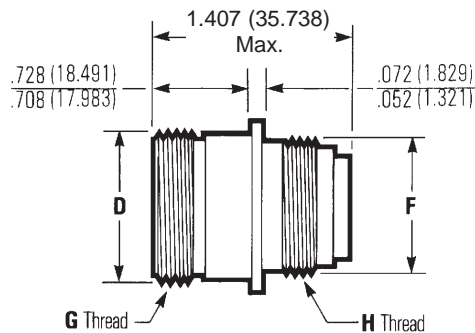
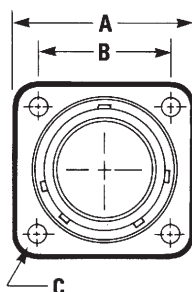
| Shell Size | A. Dia. |        | B. Dia. |        | C. Max. |        | D. Thread<br>UNEF-2A |
|------------|---------|--------|---------|--------|---------|--------|----------------------|
|            | in      | mm     | in      | mm     | in      | mm     |                      |
| 8          | .328    | 8.331  | .437    | 11.100 | .776    | 19.712 | .437-28              |
| 10         | .420    | 10.668 | .562    | 14.275 | .906    | 23.013 | .562-24              |
| 12         | .580    | 14.732 | .750    | 19.050 | 1.078   | 27.381 | .750-20              |
| 14         | .664    | 16.866 | .812    | 20.625 | 1.141   | 28.982 | .812-20              |
| 16         | .769    | 19.533 | .938    | 23.825 | 1.266   | 32.157 | .937-20              |
| 18         | .902    | 22.911 | 1.062   | 26.975 | 1.375   | 34.925 | 1.062-18             |
| 20         | 1.033   | 26.238 | 1.182   | 30.023 | 1.510   | 38.354 | 1.187-18             |
| 22         | 1.152   | 29.261 | 1.312   | 33.325 | 1.625   | 41.275 | 1.312-18             |
| 24         | 1.282   | 32.253 | 1.432   | 36.373 | 1.760   | 44.704 | 1.437-18             |

<sup>1</sup>Boeing Specifications, see page 3-14.

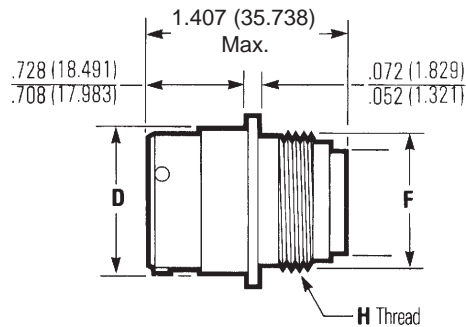
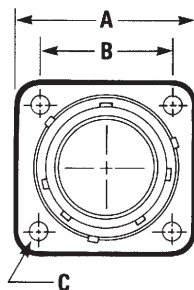
# C48 Series Receptacle Connectors



**Square Flange,  
Threaded Coupling**  
C48-OORXX-XXXX  
MS24264RXXTXXX  
BACC45FM<sup>1</sup>



**Square Flange,  
Bayonet Coupling**  
C48-1ORXX-XXXX  
MS24264RXXBXXX  
BACC45FN<sup>1</sup>



## Dimensions

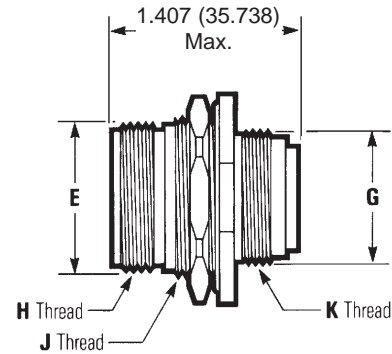
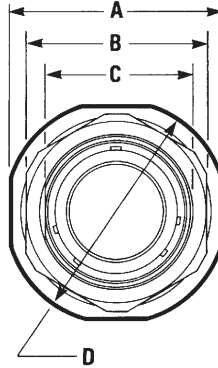
| Shell<br>Size | A                  |                    | B                  |                    | C               |                 | D          |            | F          |            | G        | H        | J          |            | K          |            |
|---------------|--------------------|--------------------|--------------------|--------------------|-----------------|-----------------|------------|------------|------------|------------|----------|----------|------------|------------|------------|------------|
|               | ±.005 (.127)<br>in | ±.005 (.127)<br>mm | ±.005 (.127)<br>in | ±.005 (.127)<br>mm | Max. Dia.<br>in | Max. Dia.<br>mm | Max.<br>in | Max.<br>mm | Max.<br>in | Max.<br>mm | Thread   | Thread   | Min.<br>in | Min.<br>mm | Min.<br>in | Min.<br>mm |
| 8             | .812               | 20.625             | .594               | 15.088             | .125            | 3.175           | .561       | 14.250     | .437       | 11.100     | .562-24  | .437-28  | .620       | 15.748     | .447       | 11.354     |
| 10            | .937               | 23.800             | .719               | 18.263             | .125            | 3.175           | .696       | 17.679     | .562       | 14.275     | .687-24  | .562-24  | .748       | 18.999     | .572       | 14.529     |
| 12            | 1.031              | 26.188             | .812               | 20.625             | .125            | 3.175           | .875       | 22.225     | .750       | 19.050     | .875-20  | .750-20  | .913       | 23.190     | .760       | 19.304     |
| 14            | 1.125              | 28.575             | .906               | 23.013             | .125            | 3.175           | .935       | 23.749     | .812       | 20.625     | .937-20  | .812-20  | .980       | 24.892     | .822       | 20.879     |
| 16            | 1.250              | 31.750             | .969               | 24.613             | .125            | 3.175           | 1.062      | 26.975     | .938       | 23.825     | 1.062-18 | .937-20  | 1.107      | 28.119     | .948       | 24.079     |
| 18            | 1.343              | 34.112             | 1.062              | 26.975             | .125            | 3.175           | 1.187      | 30.150     | 1.062      | 26.975     | 1.187-18 | 1.062-18 | 1.209      | 30.709     | 1.072      | 27.229     |
| 20            | 1.437              | 36.500             | 1.156              | 29.363             | .125            | 3.175           | 1.312      | 33.325     | 1.182      | 30.023     | 1.312-18 | 1.187-18 | 1.337      | 33.960     | 1.192      | 30.277     |
| 22            | 1.562              | 39.675             | 1.250              | 31.750             | .125            | 3.175           | 1.437      | 36.500     | 1.312      | 33.325     | 1.437-18 | 1.312-18 | 1.452      | 36.881     | 1.322      | 33.579     |
| 24            | 1.703              | 43.256             | 1.375              | 34.925             | .154            | 3.912           | 1.562      | 39.675     | 1.432      | 36.373     | 1.562-18 | 1.437-18 | 1.577      | 40.056     | 1.442      | 36.627     |

<sup>1</sup> = Boeing specifications, see page 3-14.

# C48 Series Receptacle Connectors

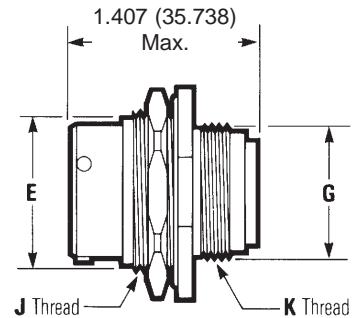
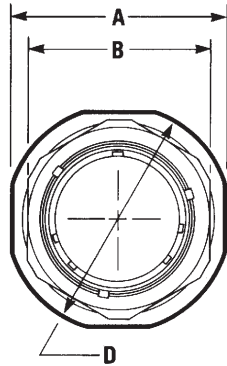


**Single-Hole Mount,  
Threaded Coupling**  
C48-03RXX-XXXX  
MS24265RXXTXXX



3

**Single-Hole Mount,  
Bayonet Coupling**  
C48-13RXX-XXXX  
MS24265RXXBXXX



## Dimensions

| Shell<br>Size | A                  |        | B          |           | C                  |        | D          |        | E               |        | G          |        | H        | J         | K        |
|---------------|--------------------|--------|------------|-----------|--------------------|--------|------------|--------|-----------------|--------|------------|--------|----------|-----------|----------|
|               | ±.005 (.127)<br>in | mm     | Max.<br>in | Hex<br>mm | ±.003 (.076)<br>in | mm     | Max.<br>in | mm     | Max. Dia.<br>in | mm     | Max.<br>in | mm     | Thread   | Thread    | Thread   |
| 8             | .979               | 24.867 | .828       | 21.031    | .593               | 15.062 | 1.068      | 27.127 | .561            | 14.249 | .437       | 11.100 | .562-24  | .625-20*  | .437-28  |
| 10            | 1.104              | 28.042 | .953       | 24.206    | .718               | 18.237 | 1.192      | 30.277 | .696            | 17.678 | .562       | 14.275 | .687-24  | .750-20   | .562-24  |
| 12            | 1.291              | 32.791 | 1.140      | 28.956    | .905               | 22.987 | 1.380      | 35.052 | .875            | 22.225 | .750       | 19.050 | .875-20  | .937-20   | .750-20  |
| 14            | 1.391              | 35.331 | 1.250      | 31.750    | .968               | 24.587 | 1.505      | 38.227 | .935            | 23.749 | .812       | 20.625 | .937-20  | 1.000-20  | .812-20  |
| 16            | 1.516              | 38.506 | 1.329      | 33.757    | 1.093              | 27.762 | 1.630      | 41.402 | 1.062           | 26.975 | .938       | 23.825 | 1.062-18 | 1.125-20* | .937-20  |
| 18            | 1.641              | 41.681 | 1.455      | 36.957    | 1.217              | 30.912 | 1.740      | 44.196 | 1.187           | 30.150 | 1.062      | 26.975 | 1.187-18 | 1.250-20* | 1.062-18 |
| 20            | 1.766              | 44.856 | 1.642      | 41.707    | 1.342              | 34.087 | 1.860      | 47.244 | 1.312           | 33.325 | 1.182      | 30.023 | 1.312-18 | 1.375-18  | 1.187-18 |
| 22            | 1.954              | 49.632 | 1.705      | 43.307    | 1.467              | 37.262 | 2.040      | 51.816 | 1.437           | 36.500 | 1.312      | 33.325 | 1.437-18 | 1.500-20* | 1.312-18 |
| 24            | 2.079              | 52.807 | 1.892      | 48.057    | 1.592              | 40.437 | 2.160      | 54.864 | 1.562           | 39.675 | 1.432      | 36.373 | 1.562-18 | 1.625-18  | 1.437-18 |

\* Thread: UN-2A

**NOTES:**

Contact factory for information about Boeing specifications.  
For mounting hole dimensions and jam nut torques, see page 3-20.

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