

**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.



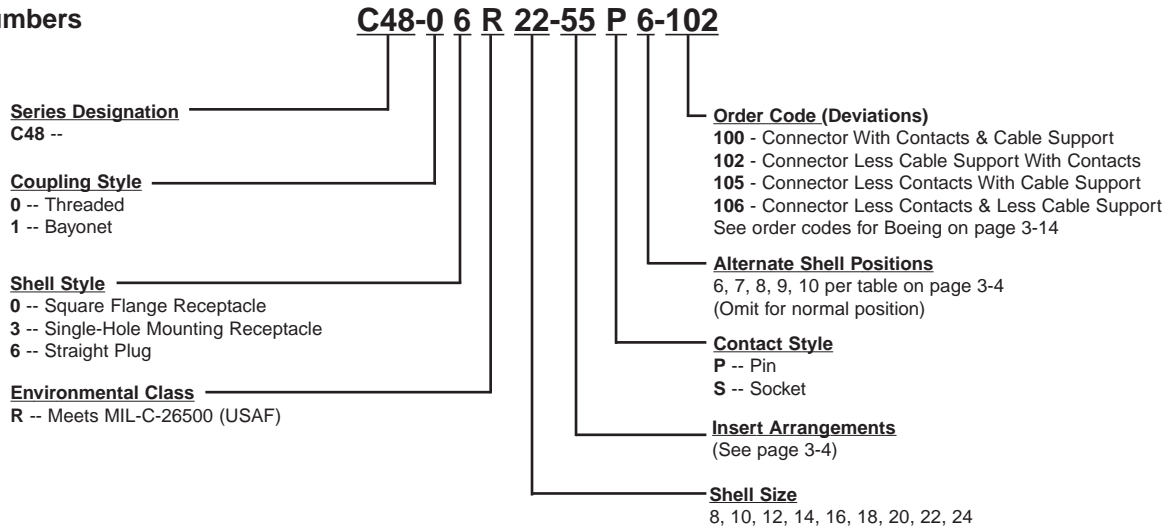
**Design Features**

- 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.

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

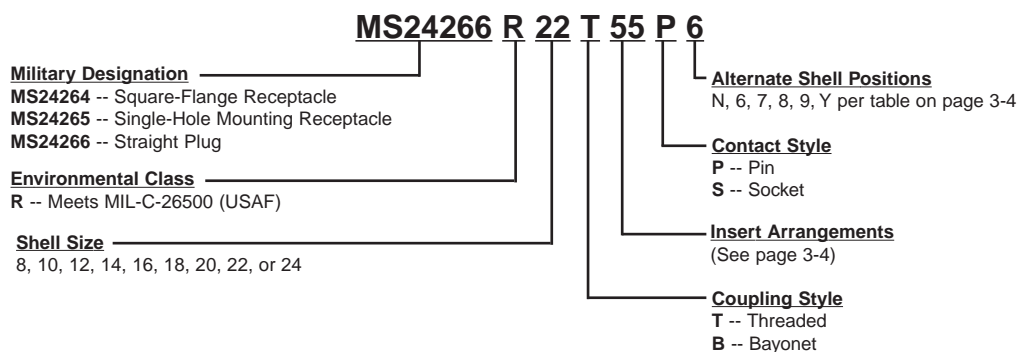
**Cinch Numbers**



**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)



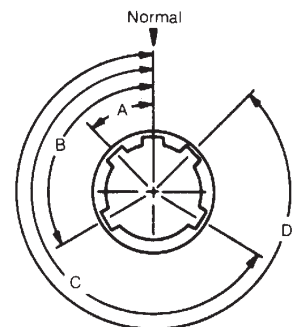
<p><b>Shell Size-8</b></p>	<p><b>Shell Size-10</b></p>	<p><b>Shell Size-12</b></p>
<p><b>Shell Size-14</b></p>	<p><b>Shell Size-16</b></p>	
<p><b>Shell Size-18</b></p>		
<p><b>Shell Size-20</b></p>		
<p><b>Shell Size-22</b></p>		
<p><b>Shell Size-24</b></p>		
<p><b>Shell Size-28</b></p> <p><b>CN096X CN102X Series Only</b></p>		

**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.

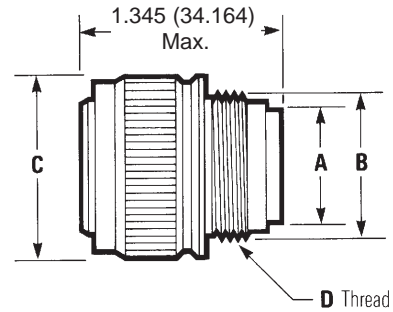
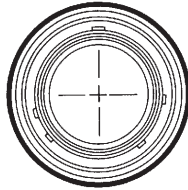


# C48 Series Plug Connectors



## Threaded Coupling

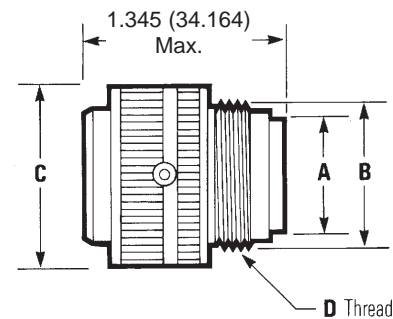
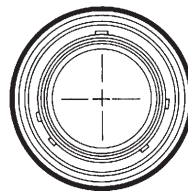
C48-06RXX-XXXX  
MS24266RXXTXXXX  
BACC45FS<sup>1</sup>



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## Bayonet Coupling

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



## Dimensions

Shell Size	A. Dia.		B. Dia.		C. Max.		D. Thread 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

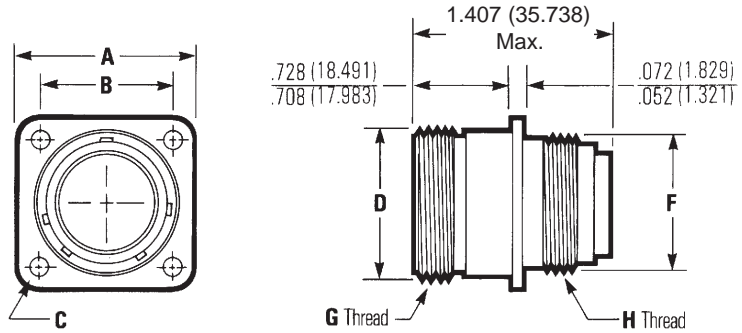
<sup>1</sup>Boeing Specifications, see page 3-14.

# C48 Series Receptacle Connectors



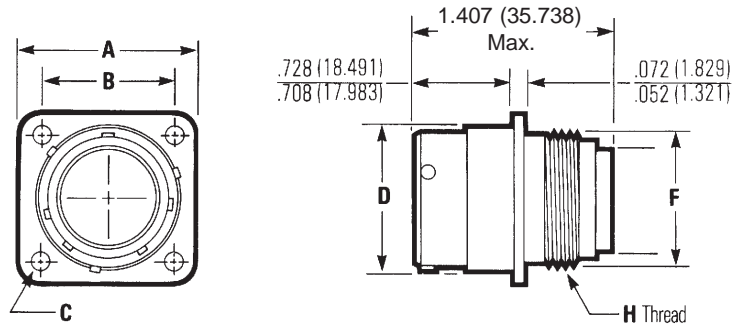
## Square Flange, Threaded Coupling

C48-OORXX-XXXX  
MS24264RXXTXXX  
BACC45FM<sup>1</sup>



## Square Flange, Bayonet Coupling

C48-1ORXX-XXXX  
MS24264RXXBXXX  
BACC45FN<sup>1</sup>



### Dimensions

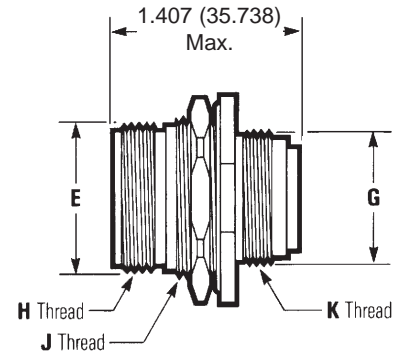
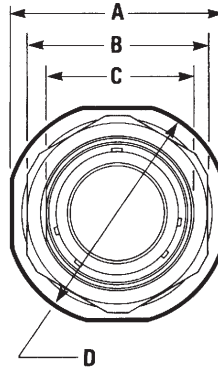
Shell Size	A		B		C		D		F		G	H	J		K	
	±.005 (.127) in	±.005 (.127) mm	±.005 (.127) in	±.005 (.127) mm	Max. Dia. in	Max. Dia. mm	Max. in	Max. mm	Max. in	Max. mm	Thread	Thread	Min. in	Min. mm	Min. in	Min. mm
8	.812	20.625	.594	15.088	.125	3.175	.561	14.250	.437	11.100	.562-24	.437-28	.620	15.748	.447	11.354
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

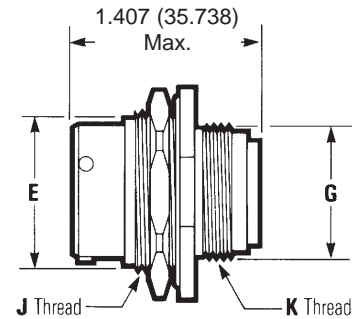
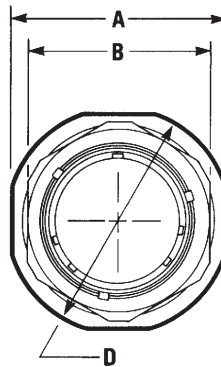


**Single-Hole Mount,  
Threaded Coupling**  
C48-03RXX-XXXX  
MS24265RXXTXXX



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



## Dimensions

Shell Size	A		B		C		D		E		G		H	J	K
	±.005 (.127) in	mm	Max. in	Hex mm	±.003 (.076) in	mm	Max. in	mm	Max. in	Max. Dia. mm	Max. 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.