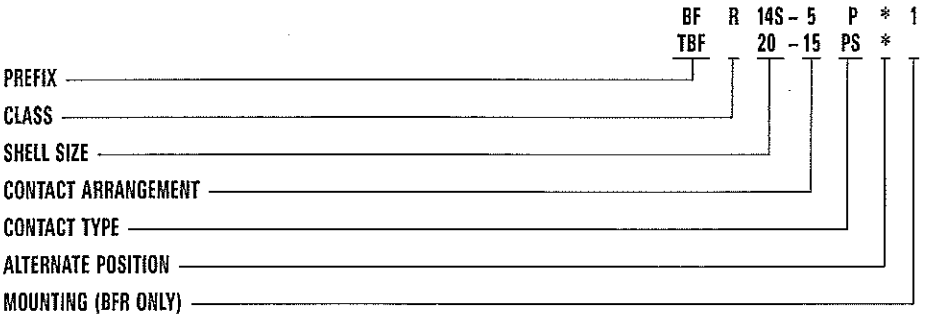
How to Order

TBF and BFR pressurized bulkhead receptacles mate with standard MS type plugs (3106, 3107 and 3108) if contact arrangements correspond. Both the BFR and TBF have resilient insulators. The TBF (thru-bulkhead fitting) version has a double-faced construction allowing mating from both ends. An O ring is supplied as standard on both the BFR and the TBF. Contacts are silver plated copper or brass alloy. Shells are aluminum alloy.



PREFIX
BF – Bulkhead fittings
TBF – Thru bulkhead fittings

CLASS
*R – Resilient insulators
H – Hermetic; see page 327
*Letter designator "R" not required for TBF.

SHELL SIZE
Coupling thread diameter figured in sixteenths of an inch

CONTACT ARRANGEMENTS
See pages 171-174.

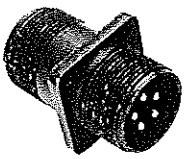
CONTACT TYPE
P for Pin; S for Socket; PS for Pin and Socket (TBF only)

ALTERNATE POSITION
(Consult factory for available alternate positions.)

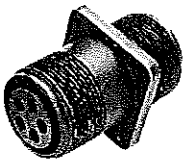
MOUNTING
BFR only; see chart on page 183

Thru-Bulkhead Receptacle

TBF – Resilient Insulator

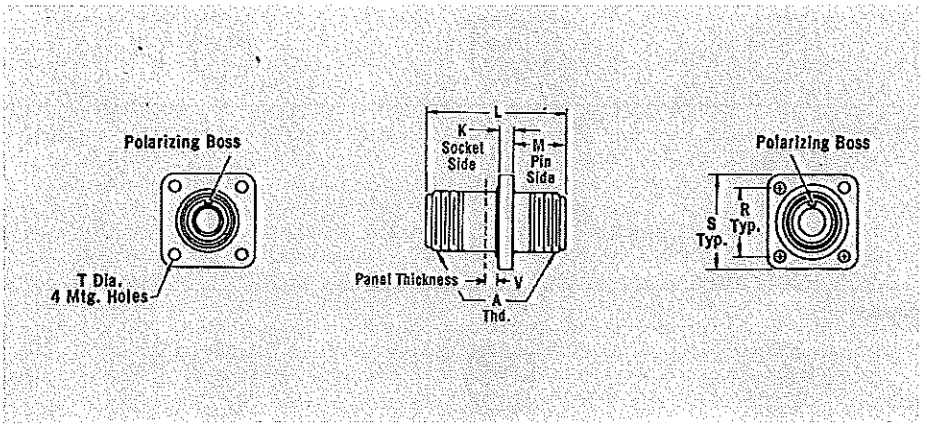


Pin Insert End



Socket Insert End

TBF thru-bulkhead fittings have pressurized resilient insulators. Special double-face pin and socket contact construction permits cable components to be wired and tested in the shop and then to be plugged into the mounted TBF plug to complete the installation. The TBF mates with 3106, 3107 and 3108 plugs.



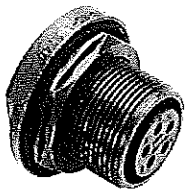
Shell Size	K Max.	L Max.	M +.031 (0.79) −.000 (0.00)	R ±.005 (0.13)	S ±.031 (0.79)	T +.010 (0.25) −.005 (0.13)	V Max.	A Thread
8S	.125 (3.18)	1.482 (37.64)	.562 (14.27)	.594 (15.09)	.875 (22.22)	.120 (3.05)	.325 (8.26)	1/2-28UNEF-2A
10S	.125 (3.18)	1.482 (37.64)	.562 (14.27)	.719 (18.26)	1.000 (25.40)	.120 (3.05)	.325 (8.26)	5/8-24UNEF-2A
10SL	.125 (3.18)	1.482 (37.64)	.562 (14.27)	.719 (18.26)	1.000 (25.40)	.120 (3.05)	.325 (8.26)	5/8-24UNEF-2A
12S	.140 (3.56)	1.482 (37.64)	.562 (14.27)	.812 (20.62)	1.094 (27.79)	.120 (3.05)	.325 (8.26)	3/4-20UNEF-2A
14S	.140 (3.56)	1.482 (37.64)	.562 (14.27)	.906 (23.01)	1.188 (30.18)	.120 (3.05)	.325 (8.26)	7/8-20UNEF-2A
16S	.140 (3.56)	1.482 (37.64)	.562 (14.27)	.968 (24.59)	1.281 (32.54)	.120 (3.05)	.325 (8.26)	1-20UNEF-2A
12	.146 (3.71)	2.030 (51.56)	.750 (19.05)	.812 (20.62)	1.094 (27.79)	.120 (3.05)	.445 (11.30)	3/4-20UNEF-2A
14	.146 (3.71)	2.030 (51.56)	.750 (19.05)	.906 (23.01)	1.188 (30.18)	.120 (3.05)	.445 (11.30)	7/8-20UNEF-2A
16	.146 (3.71)	2.030 (51.56)	.750 (19.05)	.968 (24.59)	1.281 (32.54)	.120 (3.05)	.445 (11.30)	1-20UNEF-2A
18	.180 (4.57)	2.030 (51.56)	.750 (19.05)	1.062 (26.97)	1.375 (34.92)	.120 (3.05)	.445 (11.30)	1-1/8-18UNEF-2A
20	.180 (4.57)	2.030 (51.56)	.750 (19.05)	1.156 (29.36)	1.500 (38.10)	.120 (3.05)	.445 (11.30)	1-1/4-18UNEF-2A
22	.180 (4.57)	2.030 (51.56)	.750 (19.05)	1.250 (31.75)	1.625 (41.28)	.120 (3.05)	.445 (11.30)	1-3/8-18UNEF-2A
24	.203 (5.16)	2.030 (51.56)	.812 (20.62)	1.375 (34.92)	1.750 (44.45)	.147 (3.73)	.383 (9.73)	1-1/2-18UNEF-2A
28	.203 (5.16)	2.030 (51.56)	.812 (20.62)	1.562 (39.67)	2.000 (50.80)	.147 (3.73)	.383 (9.73)	1-3/4-18UNS-2A
32	.203 (5.16)	2.030 (51.56)	.875 (22.22)	1.750 (44.45)	2.250 (57.15)	.173 (4.39)	.320 (8.13)	2-18UNS-2A
36	.203 (5.16)	2.030 (51.56)	.812 (20.62)	1.938 (49.23)	2.500 (63.50)	.173 (4.39)	.383 (9.73)	2-1/4-16UN-2A
40	.203 (5.16)	2.030 (51.56)	.875 (22.22)	2.188 (55.58)	2.750 (69.85)	.173 (4.39)	.383 (9.73)	

Performance Specifications – Page 168 Contacts, Sealing Plugs, Assembly Tools – Page 187 Contact Arrangements – Page 171-174

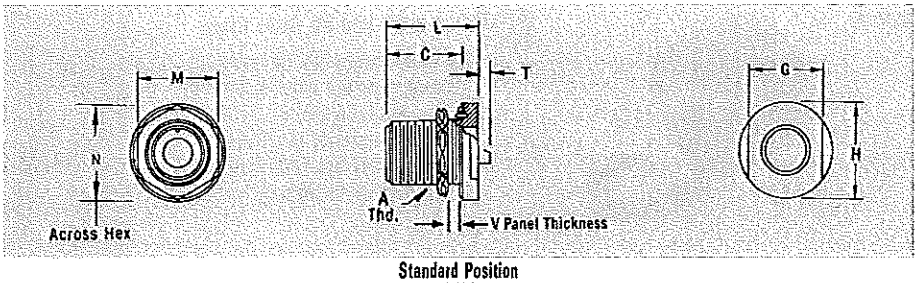
ITT Cannon
Dimensions are shown in inches (millimeters). Dimensions subject to change.
For technical assistance, price or delivery information, call your local technical sales office or distributor.

Pressurized Bulkhead Receptacle

BFR



BFR pressurized bulkhead receptacles withstand the air leakage requirements of MIL-C-5015 not to exceed 1 cu. in. of air per hour when subjected to a pressure differential of 30 psi at −55°C. Insulators are resilient material bonded to aluminum shell. Both pin and socket assemblies are available. The BFR will mate with standard MS type 3106, 3107, 3108 plugs.



Standard Position
Pin is 3/32" Dia.

Type 1

Shell	Standard
Insulator	Polychloroprene
Lock Nut	Hex with 6 wire holes
O Ring	Neoprene
Position Pin	Standard
Mounting	Figure 1 or 2
Part No. Example:	BFR14S-5P-1

Shell Size	C Max.	G Max.	H Max.	L Max.	M Max.	N Max.	T Max. Solder Pot Ext. #16	#12	#8	#4	#0	V Max.
8S	.853 (21.67)	.895 (22.73)	1.077 (27.36)	1.087 (27.61)	.702 (17.83)	.820 (20.83)	.140 (3.56)	—	—	—	—	.250 (6.35)
10S	.853 (21.67)	1.015 (25.78)	1.203 (30.56)	1.087 (27.61)	.822 (20.88)	.960 (24.38)	.140 (3.56)	—	—	—	—	.250 (6.35)
10SL	.853 (21.67)	1.015 (25.78)	1.203 (30.56)	1.087 (27.61)	.822 (20.88)	.960 (24.38)	.140 (3.56)	—	—	—	—	.250 (6.35)
12S	.853 (21.67)	1.077 (27.36)	1.327 (33.71)	1.087 (27.61)	.955 (24.26)	1.110 (28.19)	.140 (3.56)	—	—	—	—	.250 (6.35)
14S	.853 (21.67)	1.203 (30.56)	1.453 (36.91)	1.087 (27.61)	1.072 (27.23)	1.250 (31.75)	.140 (3.56)	—	—	—	—	.375 (9.52)
16S	.853 (21.67)	1.327 (33.71)	1.577 (40.06)	1.087 (27.61)	1.265 (32.13)	1.460 (37.08)	.140 (3.56)	—	—	—	—	.375 (9.52)
12	1.244 (31.60)	1.077 (27.36)	1.327 (33.71)	1.525 (38.74)	.955 (24.26)	1.110 (28.19)	.062 (1.57)	.062 (1.57)	—	—	—	.375 (9.52)
14	1.244 (31.60)	1.203 (30.56)	1.453 (36.91)	1.525 (38.74)	1.072 (27.23)	1.250 (31.75)	.062 (1.57)	.062 (1.57)	.125 (3.18)	—	—	.375 (9.52)
16	1.244 (31.60)	1.327 (33.71)	1.577 (40.06)	1.525 (38.74)	1.265 (32.13)	1.460 (37.08)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	—	.375 (9.52)
18	1.244 (31.60)	1.453 (36.91)	1.703 (43.26)	1.525 (38.74)	1.395 (35.43)	1.610 (40.89)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	—	.375 (9.52)
20	1.244 (31.60)	1.577 (40.06)	1.827 (46.41)	1.525 (38.74)	1.515 (38.48)	1.750 (44.45)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.375 (9.52)
22	1.244 (31.60)	1.577 (40.06)	1.953 (49.61)	1.525 (38.74)	1.635 (41.53)	1.900 (48.26)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.375 (9.52)
24	1.244 (31.60)	1.827 (46.41)	2.077 (52.76)	1.525 (38.74)	1.765 (44.83)	2.030 (51.56)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.375 (9.52)
28	1.244 (31.60)	1.953 (49.61)	2.327 (59.11)	1.525 (38.74)	2.015 (51.18)	2.330 (59.18)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.375 (9.52)
32	1.244 (31.60)	2.203 (55.96)	2.577 (65.46)	1.525 (38.74)	2.205 (56.01)	2.550 (64.77)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.375 (9.52)
36	1.244 (31.60)	2.577 (65.46)	2.827 (71.81)	1.525 (38.74)	2.455 (62.36)	2.840 (72.14)	.062 (1.57)	.062 (1.57)	.125 (3.18)	.125 (3.18)	.359 (9.12)	.312 (7.92)

Shell Size	A Thread
8S	1/2-28UNEF-2A
10S	5/8-24UNEF-2A
10SL	5/8-24UNEF-2A
12S	3/4-20UNEF-2A
14S	7/8-20UNEF-2A
16S	1-20UNEF-2A
12	3/4-20UNEF-2A
14	7/8-20UNEF-2A

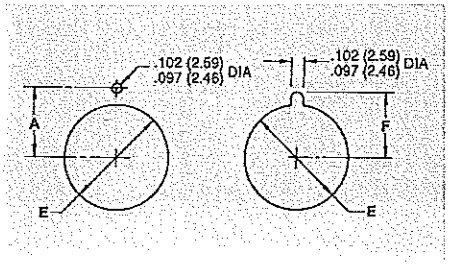
Shell Size	A Thread
16	1-20UNEF-2A
18	1-1/8-18UNEF-2A
20	1-1/4-18UNEF-2A
22	1-3/8-18UNEF-2A
24	1-1/2-18UNEF-2A
28	1-3/4-18UNS-2A
32	2-18UNS-2A
36	2-1/4-16UN-2A

Performance Specifications – Page 168

Contacts, Sealing Plugs, Assembly Tools – Page 187

Contact Arrangements – Page 171-174

Mounting Dimensions

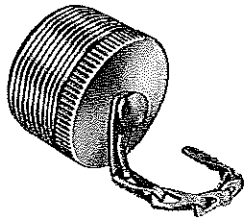


Shell Size	A ±.005 (0.13)	E +.015 (0.38) −.000 (0.00)	F ±.005 (0.13)
8S	.323 (8.20)	.500 (12.70)	.373 (9.47)
10S, 10SL	.385 (9.78)	.625 (15.88)	.435 (11.05)
12S, 12	.448 (11.38)	.750 (19.05)	.498 (12.65)
14S, 14	.510 (12.95)	.875 (22.22)	.560 (14.22)
16S, 16	.573 (14.55)	1.000 (25.40)	.623 (15.82)
18	.635 (16.13)	1.125 (28.58)	.685 (17.40)

Shell Size	A ±.005 (0.13)	E +.015 (0.38) −.000 (0.00)	F ±.005 (0.13)
20	.698 (17.73)	1.250 (31.75)	.748 (19.00)
22	.760 (19.30)	1.375 (34.92)	.810 (20.57)
24	.823 (20.90)	1.500 (38.10)	.873 (22.17)
28	.948 (24.08)	1.750 (44.45)	.998 (25.35)
32	1.073 (27.25)	2.000 (50.80)	1.123 (28.52)
36	1.198 (30.43)	2.250 (57.15)	1.248 (31.70)

Protective Metal Cap

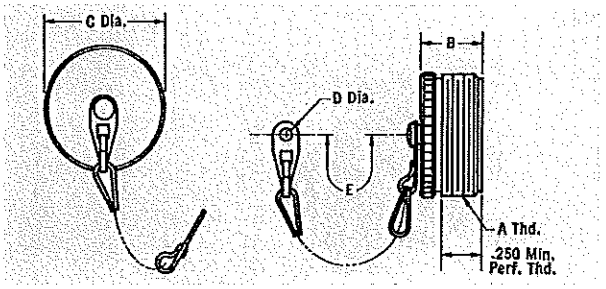
MS25042



CA17530
CA19741

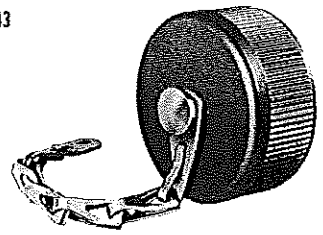
For 06 and 08 Style Plugs

These externally threaded metal dust caps are used to protect the MS3106 and MS3108 plugs. Material is aluminum alloy. They are furnished with sash chain or less sash chain.



Part Number										
Black Anodized Finish With Sash Chain MS	ITT Cannon	Superseded MS Number (Ref)	Olive Drab Chromate Over Cadmium Finish With Sash Chain May Still be Purchased by ITTC Part Number	Olive Drab Chromate Over Cadmium Finish, Without Sash Chain ITTC Part Number	Fits Shell Size	B Max.	C Dia. Max.	E Max.	D Dia. Max.	A Thread
MS25042-8DA	CA17530-8000	MS25042-8D	CA17530-5100	CA19741-8	8S	.656 (16.66)	.562 (14.27)	4.500 (114.30)	.166 (4.22)	1/2-28UNEF-2A
MS25042-10DA	CA17530-8001	MS25042-10D	CA17530-5101	CA19741-10	10S, 10SL	.656 (16.66)	.687 (17.45)	4.500 (114.30)	.166 (4.22)	5/8-24UNEF-2A
MS25042-12DA	CA17530-8002	MS25042-12D	CA17530-5102	CA19741-12	12, 12S	.844 (21.44)	.812 (20.62)	5.000 (127.00)	.166 (4.22)	3/4-20UNEF-2A
MS25042-14DA	CA17530-8003	MS25042-14D	CA17530-5103	CA19741-14	14, 14S	.844 (21.44)	.937 (23.80)	5.000 (127.00)	.166 (4.22)	7/8-20UNEF-2A
MS25042-16DA	CA17530-8004	MS25042-16D	CA17530-5104	CA19741-16	16, 16S	.844 (21.44)	1.062 (26.97)	5.000 (127.00)	.166 (4.22)	1-20UNEF-2A
MS25042-18DA	CA17530-8005	MS25042-18D	CA17530-5105	CA19741-18	18	.844 (21.44)	1.187 (30.15)	5.000 (127.00)	.166 (4.22)	1-1/8-18UNEF-2A
MS25042-20DA	CA17530-8006	MS25042-20D	CA17530-5106	CA19741-20	20	.844 (21.44)	1.312 (33.32)	5.500 (139.70)	.197 (5.00)	1-1/4-18UNEF-2A
MS25042-22DA	CA17530-8007	MS25042-22D	CA17530-5107	CA19741-22	22	.844 (21.44)	1.437 (36.50)	5.500 (139.70)	.197 (5.00)	1-3/8-18UNEF-2A
MS25042-24DA	CA17530-8008	MS25042-24D	CA17530-5108	CA19741-24	24	.844 (21.44)	1.562 (39.67)	6.000 (152.40)	.197 (5.00)	1-1/2-18UNEF-2A
MS25042-28DA	CA17530-8009	MS25042-28D	CA17530-5109	CA19741-28	28	.844 (21.44)	1.812 (46.02)	8.250 (209.55)	.197 (5.00)	1-3/4-18UNEF-2A
MS25042-32DA	CA17530-8010	MS25042-32D	CA17530-5110	CA19741-32	32	.844 (21.44)	2.062 (52.37)	8.250 (209.55)	.228 (5.79)	2-18UNEF-2A
MS25042-36DA	CA17530-8011	MS25042-36D	CA17530-5111	CA19741-36	36	.844 (21.44)	2.312 (58.72)	8.250 (209.55)	.228 (5.79)	2-1/4-16UN-2A
MS25042-40DA	CA17530-8012	MS25042-40D	CA17530-5112	CA19741-40	40	.844 (21.44)	2.562 (65.07)	8.250 (209.55)	.228 (5.79)	2-1/2-16UN-2A
MS25042-44DA	CA17530-8013	MS25042-44D	CA17530-5113	CA19741-44	44	.844 (21.44)	2.812 (71.42)	8.250 (209.55)	.228 (5.79)	2-3/4-16UN-2A
MS25042-48DA	CA17530-8014	MS25042-48D	CA17530-5114	CA19741-48	48	.844 (21.44)	3.062 (77.77)	8.250 (209.55)	.228 (5.79)	3-16UN-2A

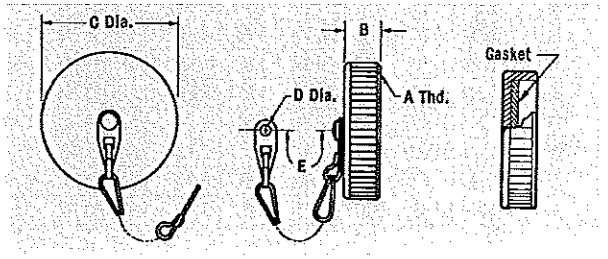
MS25043



CA2209
CA2322

For 00, 01 and 02 Style Receptacles

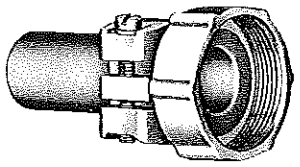
These internally threaded metal dust caps are used to protect MS3100, MS3101 and MS3102 receptacles. Material is aluminum alloy. They are furnished with sash chain or less sash chain.



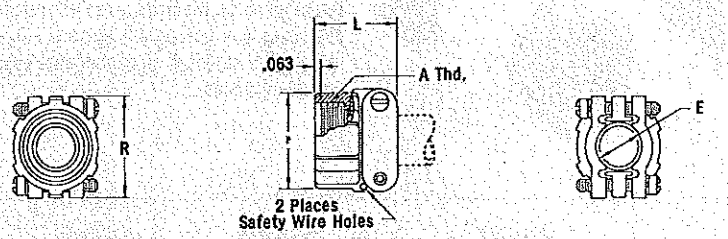
Part Number										
Black Anodize Finish With Sash Chain MS	ITT Cannon	Superseded MS Number (Ref)	Olive Drab Chromate Over Cadmium Finish With Sash Chain May Still be Purchased by ITTC Part Number	Olive Drab Chromate Over Cadmium Finish Without Sash Chain ITTC Part Number	Fits Shell Size	B Max.	C Dia. Max.	E Max.	D Dia. Max.	A Thread
MS25043-8DA	CA2209-8000	MS25043-8D	CA2209-5100	CA2322-1	8S	.469 (11.91)	.688 (17.48)	4.500 (114.30)	.150 (3.81)	1/2-28UNEF-2B
MS25043-10DA	CA2209-8001	MS25043-10D	CA2209-5101	CA2322-2	10S, 10SL	.469 (11.91)	.815 (20.70)	4.500 (114.30)	.150 (3.81)	5/8-24UNEF-2B
MS25043-12DA	CA2209-8002	MS25043-12D	CA2209-5102	CA2322-3	12, 12S	.469 (11.91)	1.000 (25.40)	5.000 (127.00)	.150 (3.81)	3/4-20UNEF-2B
MS25043-14DA	CA2209-8003	MS25043-14D	CA2209-5103	CA2322-4	14, 14S	.469 (11.91)	1.125 (28.58)	5.000 (127.00)	.150 (3.81)	7/8-20UNEF-2B
MS25043-16DA	CA2209-8004	MS25043-16D	CA2209-5104	CA2322-5	16, 16S	.469 (11.91)	1.188 (30.18)	5.000 (127.00)	.150 (3.81)	1-20UNEF-2B
MS25043-18DA	CA2209-8005	MS25043-18D	CA2209-5105	CA2322-6	18	.469 (11.91)	1.344 (34.14)	5.000 (127.00)	.150 (3.81)	1-1/8-18UNEF-2B
MS25043-20DA	CA2209-8006	MS25043-20D	CA2209-5106	CA2322-7	20	.469 (11.91)	1.469 (37.31)	5.500 (139.70)	.150 (3.81)	1-1/4-18UNEF-2B
MS25043-22DA	CA2209-8007	MS25043-22D	CA2209-5107	CA2322-8	22	.469 (11.91)	1.594 (40.49)	5.500 (139.70)	.150 (3.81)	1-3/8-18UNEF-2B
MS25043-24DA	CA2209-8008	MS25043-24D	CA2209-5108	CA2322-9	24	.469 (11.91)	1.719 (43.66)	6.000 (152.40)	.181 (4.60)	1-1/2-18UNEF-2B
MS25043-28DA	CA2209-8009	MS25043-28D	CA2209-5109	CA2322-10	28	.531 (13.49)	1.969 (50.01)	8.250 (209.55)	.181 (4.60)	1-3/4-18UNS-2B
MS25043-32DA	CA2209-8010	MS25043-32D	CA2209-5110	CA2322-11	32	.531 (13.49)	2.219 (56.36)	8.250 (209.55)	.197 (5.00)	2-18UNS-2B
MS25043-36DA	CA2209-8011	MS25043-36D	CA2209-5111	CA2322-12	36	.531 (13.49)	2.469 (62.71)	8.250 (209.55)	.197 (5.00)	2-1/4-16UN-2B
MS25043-40DA	CA2209-8012	MS25043-40D	CA2209-5112	CA2322-13	40	.531 (13.49)	2.719 (69.06)	8.250 (209.55)	.197 (5.00)	2-1/2-16UN-2B
MS25043-44DA	CA2209-8013	MS25043-44D	CA2209-5113	CA2322-14	44	.531 (13.49)	2.969 (75.41)	8.250 (209.55)	.197 (5.00)	2-3/4-16UN-2B
MS25043-48DA	CA2209-8014	MS25043-48D	CA2209-5114	CA2322-15	48	.531 (13.49)	3.188 (80.98)	8.250 (209.55)	.197 (5.00)	3-16UN-2B

Cable Clamp

M85049/41
With or Without Bushing



The M85049/41 cable clamp is made for plugs and receptacles that have an endbell with external conduit threads. The double clamping action provides a balanced, positive hold on the wires and greatly reduces moisture transmission. Provision is made for safety wiring. This clamp is supplied without bushing; to order bushing; add "with bushing" after part number.



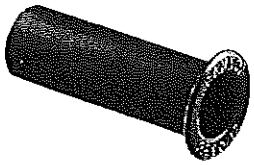
Part Number*	Superseded Part Number*	Fits Shell Size	Accommodates MS Bushings	E Min.	E Max.	L ±.031 (0.79)	P ±.031 (0.79)	R ±.031 (0.79)	A Thread
M85049/41-3A	MS3057-3A	8S-10S	MS3420-3	.102 (2.59)	.250 (6.35)	.812 (20.62)	.688 (17.48)	.812 (20.62)	1/2-28UNEF-2B
M85049/41-4A	MS3057-4A	10SL, 12S, 12	MS3420-4	.140 (3.56)	.312 (7.92)	.812 (20.62)	.812 (20.62)	.875 (22.22)	5/8-24UNEF-2B
M85049/41-6A	MS3057-6A	14S, 14	MS3420-6	.195 (4.95)	.438 (11.13)	.875 (22.22)	.969 (24.61)	1.062 (26.97)	3/4-20UNEF-2B
M85049/41-8A	MS3057-8A	16S, 16	MS3420-8	.255 (6.48)	.562 (14.27)	.938 (23.83)	1.094 (27.79)	1.156 (29.36)	7/8-20UNEF-2B
M85049/41-10A	MS3057-10A	18	MS3420-10	.285 (7.24)	.625 (15.88)	.938 (23.83)	1.188 (30.18)	1.250 (31.75)	1-20UNEF-2B
M85049/41-12A	MS3057-12A	20, 22	MS3420-12	.350 (8.89)	.750 (19.05)	.938 (23.83)	1.375 (34.92)	1.469 (37.31)	1-3/16-18UNEF-2B
M85049/41-16A	MS3057-16A	24, 28	MS3420-16, 12	.468 (11.89)	.938 (23.83)	1.031 (26.19)	1.656 (42.06)	1.688 (42.88)	1-7/16-18UNEF-2B
M85049/41-20A	MS3057-20A	32	MS3420-20, 16	.664 (16.87)	1.250 (31.75)	1.094 (27.79)	2.031 (51.59)	2.031 (51.59)	1-3/4-18UNS-2B
M85049/41-24A	MS3057-24A	36	MS3420-24, 20	.694 (17.63)	1.375 (34.92)	1.156 (29.36)	2.219 (56.36)	2.281 (57.94)	2-18UNS-2B
M85049/41-28A	MS3057-28A	40	MS3420-24, 20	.911 (23.14)	1.625 (41.28)	1.688 (42.88)	2.500 (63.50)	2.688 (68.28)	2-1/4-16UN-2B
M85049/41-32A	MS3057-32A	44	MS3420-32, 28, 24	—	1.875 (47.62)	1.750 (44.45)	2.781 (70.64)	2.938 (74.63)	2-1/2-16UN-2B
M85049/41-40A	MS3057-40A	48	MS3420-40, 32, 28	—	2.375 (60.32)	1.750 (44.45)	3.281 (83.34)	3.500 (88.90)	3-16UN-2B

*To order cable clamp with bushing, add "with bushing" after part number.

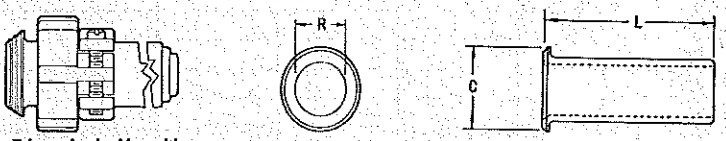
Telescoping Bushing

MS3420/
MS39056(REF.)

CA18220



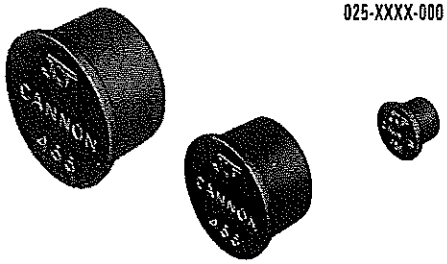
Telescoping gland bushings (used with M85049/41 cable clamp) keep dirt, oil and moisture out of endbell. Taping or wrapping wires is eliminated since bushing protects wires going thru clamp. Combinations of bushings may be used to decrease cable entry diameter to improve sealing.



Telescoping bushing with M85049/41 cable clamp

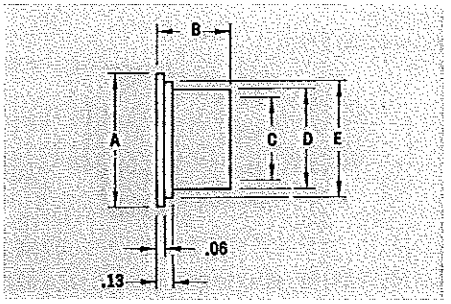
MS Part Number	Superseded MS Part Number	ITT Cannon Part Number	Fits Shell Size	C ±.016 (0.41)	L ±.031 (0.79)	R ±.016 (0.41)
MS3420-3	MS39056-1	CA18220-3	8S, 10S	.379 (9.63)	2.875 (73.02)	.130 (3.30)
MS3420-4	MS39056-2	CA18220-4	10SL, 12, 12S	.505 (12.83)	2.750 (69.85)	.220 (5.59)
MS3420-6	MS39056-3	CA18220-6	14, 14S	.619 (15.72)	2.625 (66.68)	.312 (7.92)
MS3420-8	MS39056-4	CA18220-8	16, 16S	.744 (18.90)	2.500 (63.50)	.437 (11.10)
MS3420-10	MS39056-5	CA18220-10	18	.869 (22.07)	2.375 (60.32)	.562 (14.27)
MS3420-12	MS39056-6	CA18220-12	20, 22	1.064 (27.03)	2.250 (57.15)	.625 (15.88)
MS3420-16	MS39056-7	CA18220-16	24, 28	1.314 (33.38)	2.125 (53.98)	.750 (19.05)
MS3420-20	MS39056-8	CA18220-20	32	1.596 (40.54)	2.000 (50.80)	.937 (23.80)
MS3420-24	MS39056-9	CA18220-24	36	1.847 (46.91)	1.875 (47.62)	1.250 (31.75)
MS3420-28	MS39056-10	CA18220-28	40	2.085 (52.96)	1.750 (44.45)	1.375 (34.92)
MS3420-32	MS39056-11	CA18220-32	44	2.335 (59.31)	1.625 (41.28)	1.624 (41.25)
MS3420-40	MS39056-12	CA18220-40	48	2.835 (72.01)	1.500 (38.10)	1.874 (47.60)

Plastic Protective Caps



025-XXXX-000

Protective dust caps are designed to cover the coupling and conduit ends of MS connectors where there is a possibility of foreign matter accumulating on the interior of the connector or of damage to the threaded parts. Material is red polyethylene. Plastic dust caps can be reused, but are not intended to replace the standard aluminum dust caps shown on preceding pages.



Part Number	MS3100F,R Coupling End	MS3100F,R Solder Pot End	MS3102F,R Coupling End	MS3102F,R Solder Pot End	MS-F (only) Solder Pot End	MS3106/MS3108 F,R Coupling End	MS3106/MS3108 F,R Solder Pot End	Dimensions A Max.	B Max.	C Max.	D Max.	E Max.	Wt. Lb.
025-0458-000				8S		8S		.673	.440	.430	.486	.583	.0012
025-0459-000	8S	8S, 10S	8S	8S, 10S	10S		8S, 10S	.734	.440	.490	.546	.644	.0014
025-0460-000	10S, 10SL	10SL, 12S, 12	10S, 10SL	10SL, 12S, 12		10SL, 12S, 12	10SL, 12S, 12	.848	.700	.600	.656	.758	.0022
025-0462-000	12S, 12	14S, 14	12S, 12	14S, 14			14S, 14	.973	.700	.730	.786	.883	.0028
025-0463-000	14S, 14	16S, 16	14S, 14	16S, 16			16S, 16	1.098	.700	.850	.908	1.008	.0033
025-0466-000				18	18			1.209	.700	.950	1.016	1.119	.0042
025-0467-000				20		20		1.396	.700	1.150	1.216	1.308	.0054
025-0468-000	20		20	22	22			1.500	.700	1.240	1.306	1.405	.0060
025-0469-000	22		22	24	24			1.625	.700	1.360	1.426	1.530	.0067
025-0470-000				28				1.870	.700	1.610	1.676	1.775	.0087
025-0471-000				32				2.120	.700	1.860	1.926	2.025	.0103
025-0472-000				36				2.370	.700	2.110	2.176	2.275	.0141
025-0473-000				40				2.501	.700	2.310	2.380	2.491	.0164
025-0474-000				44				2.872	.700	2.590	2.660	2.772	.0186
025-0475-000				48				3.122	.700	2.840	2.910	3.022	.0222
025-0477-000						10S, 10SL		.802	.491	.550	.616	.712	.0017
025-0478-000						12S, 12		.911	.571	.669	.725	.821	.0022
025-0479-000						14S, 14		1.036	.571	.794	.850	.946	.0027
025-0480-000						16S, 16		1.161	.571	.919	.975	1.071	.0033
025-0484-000						18		1.290	.576	1.028	1.094	1.195	.0044
025-0486-000						22		1.540	.576	1.278	1.344	1.445	.0058
025-0487-000						24		1.665	.576	1.403	1.469	1.570	.0066
025-0488-000						28		1.907	.576	1.645	1.711	1.812	.0084
025-0489-000						32		2.157	.576	1.895	1.961	2.062	.0102
025-0490-000						36		2.412	.576	2.140	2.216	2.317	.0132
025-0491-000						40		2.672	.576	2.390	2.466	2.572	.0163
025-0492-000						44		2.922	.576	2.640	2.716	2.822	.0186
025-0493-000						48		3.172	.576	2.890	2.966	3.072	.0213
025-0498-000	16S, 16	18	16S, 16	48			18	1.240	.700	.990	1.056	1.150	.0044
025-0499-000		20, 22		36		22	20, 22	1.427	.700	1.117	1.183	1.337	.0055
025-0500-000		24, 28		40			24, 28	1.677	.700	1.420	1.486	1.587	.0072
025-0501-000	28	32	28	44			32	1.985	.700	1.730	1.796	1.895	.0095
025-0502-000	32	36	32	32			36	2.245	.700	1.980	2.046	2.155	.0114
025-0503-000	36	40	36	24, 28			40	2.495	.700	2.230	2.296	2.400	.0134
025-0504-000	40	44	40	20, 22			44	2.742	.700	2.480	2.546	2.652	.0186
025-0505-000	48		48	18			48	3.257	.700	2.980	3.046	3.157	.0233
025-0507-000	18		18		20			1.365	.700	1.110	1.176	1.275	.0050
025-0510-000	24		24					1.740	.700	1.490	1.556	1.650	.0077
025-0511-000	44	48	44					3.007	.700	2.730	2.796	2.907	.0220
025-0608-000					8S			.643	.440	.400	.456	.553	.0011
025-0609-000					10SL, 12S, 12			.829	.700	.580	.636	.739	.0021
025-0610-000					14S, 14			.954	.700	.710	.766	.864	.0028
025-0611-000					16S, 16			1.079	.700	.830	.886	.989	.0032
025-0612-000					28			1.839	.700	1.570	1.626	1.744	.0083
025-0613-000					32			2.089	.700	1.820	1.876	1.994	.0100
025-0614-000					36			2.376	.700	2.010	2.066	2.231	.0132

F80 Assembly Instructions

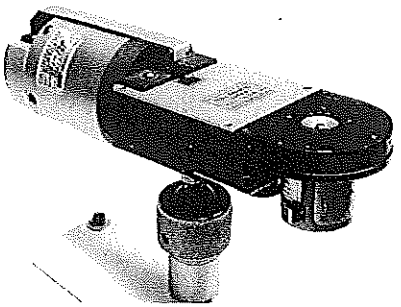
ITT Cannon provides a complete line of crimp insertion and extraction tooling to be used with CA-F80 contacts as follows:

Contact Size	Hand Crimp Tool*	Locator	Power Crimp Tool**	Crimp Head	Locator	Gauge
16	M-22520/1-01	TH-70-1	CBT-530			
12	M-22520/1-01	TP567	CBT-600/600B	CCH-12-7	CCHP-12-2	—
8	—	—	CBT-600/600B	CCH-8-1	CCHP-8-1	CCH-8-1
4	—	—	CBT-600/600B	CCH-4-1	CCHP-4-1	CCH-4-1
0	—	—	CBT-600B	CCH-0-1	CCHP-0-9	CCH-0

*The M-22520/1-01 is the MIL standard crimp tool for #12 thru #20 contacts and when used with crimp #12, 16 and 20 contacts for the CA-F80.

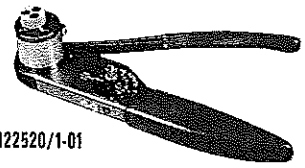
**The CBT-600 is recommended for crimping of #4 thru #12 contacts. The CBT-600B for #0 thru #8. The appropriate locators and crimp heads are available as shown above.

CBT-600



CBT-520/530

Crimp Tool



M22520/1-01

Crimping Contacts

1. Check the crimp tool to be sure that the proper crimp head locator is used.
2. Cycle the tool to be sure the indentors are open.
3. Place the contact, mating end first, into the tool.
4. Insert the stripped wire into the hollow end of the contact. Be sure the wire is inserted as far as it will go.
5. Close the tool completely to crimp. Unless the tool is closed completely, the tool will not release the contact.
6. Remove the crimped contact from the tool. Check the inspection hole to verify that the wire is fully inserted.

Insertion/Extraction Tools

CIT

CET

Insertion and extraction tools used for these connectors are available for contact sizes 16 thru 0 as shown.

Contact Size	Insertion Tools	Extraction Tools	Handle Color
16	CIT-16 (038895-0000)	CET-16-4 (038888-0004)	Blue
12	CIT-12 (038896-0000)	CET12-2 (038890-0002)	Yellow
8	CIT-8	CET-8	Red
4	CIT-4	CET-4	Blue
0	CIT-0	CET-0	Yellow

Insertion of Contacts

1. Before inserting the contacts, remove the endbell, grommets, and ferrule from the receptacle. Remove the endbell, grommet, ferrule, and coupling nut from the plug. Slide the hardware over the wire bundle in the proper order for reassembly after all the contacts are inserted.
2. To assist insertion of contacts, lubricate insert cavities with isopropyl alcohol. Alcohol will evaporate and will not leave a conductive film. **Caution: Never use any lubricant other that isopropyl alcohol.** Hold the plug or receptacle body firmly and insert the wired contacts as far as possible by hand. Starting at one side of the insulator, work progressively from contact to contact across the layout. When inserting socket contacts, be sure to provide fixture space below the front face to permit length of guide pins for #16 and #12 contacts to clear insulator face.
3. Place the correct insertion tool on the contact so that the wire runs along the groove in the tool. (Tool tip will butt against the shoulder.)
4. Beginning with a cavity on the outer edge of the plug, apply a slow, even pressure perpendicular to the insulator face until the contact snaps into position. If contacts are not inserted all the way prior to removing insertion tool, do not try to reinsert the insertion tool. Instead, using the extraction tool, push the contact back to position it was in when the insertion tool was originally placed over the contact for push-in; otherwise the inside of contact cavity may be damaged by reinserting the insertion tool.
5. Inspect the front end of the insulator to assure that the contacts are inserted to the proper depth.

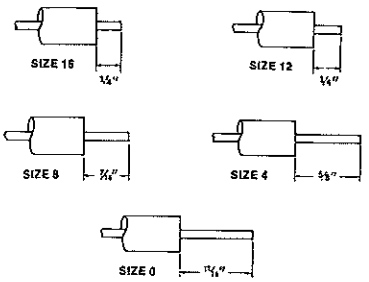
Completion

After all the cavities have been filled, slide the hardware back into position on the barrel. Tighten the endbell until the ferrule and endbell are flush. Compression of the grommet in this manner results in maximum sealing characteristics of the plug.

Extraction of Contacts

1. Select the appropriate tool. (Tool tips are reversible for either pin or socket.) Place the extraction tool over the pin or into the socket.
2. Apply a slow, even pressure to push the contact out of the rear of the insulator.

Recommended Wire Stripping



Contacts

	Contact Part Numbers F80	
Contact Size	Pin	Socket
16S	330-0345-016	031-0554-161
16	330-0351-016	031-0560-161
12	330-0351-012	031-0560-121
8	330-0351-008	031-0560-081
4	330-0351-004	031-0560-041
0	330-0351-000	031-0560-001

Guide Pins

Guide pins are used to assist insertion of socket contact Sizes #16 and #12. Larger sizes do not require guide pins.

Contact	Guide Pin
#16	226-1017-000
#12	226-1018-000

Wire Hole Fillers

Size	ITT Cannon Part Number	MS Number
16	225-0017-000	MS25251-16
12	225-0018-000	MS25251-12
8	225-0019-000	MS25251-8

Circular Connectors

Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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