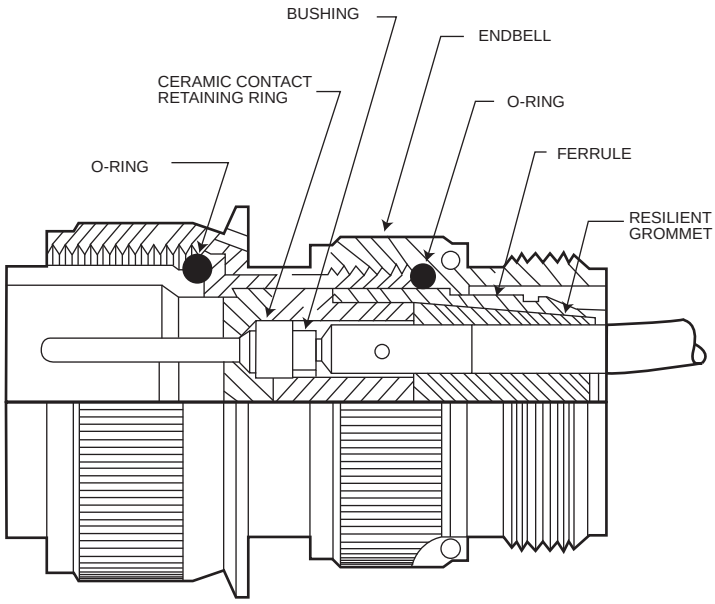
Washing, fuel spillage, and atmospheric variations are responsible for the development of firewall connectors that combine moisture resistance with fireproof characteristics. The CA-KE series provide enviornmental resistance to meet the moisture problems as well as emergency fire conditions defined by MIL-C-5015. CA-KE connectors are fully interchangeable and intermateable with other 5015 type of connectors. In order to maintain the moisture seal and fire resistance, however, they must mate with corresponding CA-KE connectors.

Continous opserating temperature of +177˚C (+350˚F) - crimp contacts. Moisture resistant connector for use with sealable wires. Modifications of MS31**K configuration.



Performance and Material Specifications

MATERIALS	
Shell	- Steel
Insulator	- Glass-filled epoxy or glass-filled melamine
Contacts	- Copper alloy
Grommet and O Ring	- Fuel-resistant silicone rubber
Accessory Hardware	- Steel

FINISHES	
Shell	- Olive drab over cadmium plate
Contacts	- Sliver Plate
Accesory Hardware	- Olive drab over cadmium plate

MECHANICAL FEATURES	
Shell Size	- In sixteenths of an inch
Coupling	- Threaded
Contact Arrangements	- See pages 216-217

ELECTRICAL DATA	
Number of Contacts	- 1 thru 47

How to Order

CA 00 KE 24 28 S

SERIES PREFIX

SHELL STYLE

CLASS

SHELL SIZE

CONTACT ARRANGEMENT

CONTACT TYPE

SERIES PREFIX
CA

SHELL STYLE
00 - Wall mounting receptacle (without conduit threads)
06 - Straight plug (without conduit threads)
3100 - Wall mounting receptacle
3106 - Straight plug

CLASS
KE - Environment-resistant firewall connector

SHELL SIZE
8S to 36

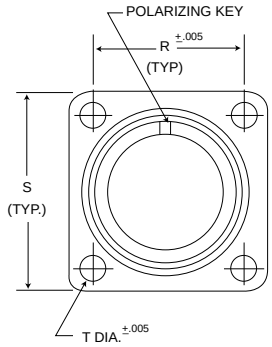
CONTACT ARRANGEMENT
See pages 216-217.

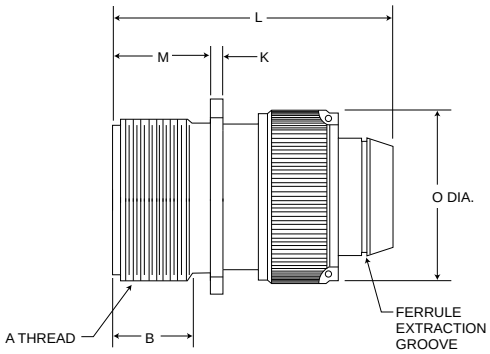
CONTACT TYPE
P for pin; S for socket

Wall Mounting Receptacle

CA00KE







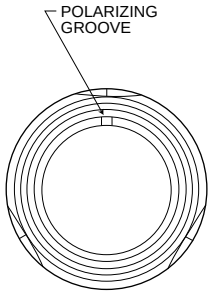
Part Number	A Thread	B	K	L	M	O	R	S	T
CA00KE8S-*†	1/2-28UNEF-2A	.375 (9.52)	.063 (1.60)	1.687 (42.85)	.578 (14.68)	.531 (13.49)	5.94 (15.09)	.875 (22.22)	.150 (3.81)
CA00KE10S-*†	5/8-24UNEF-2A	.375 (9.52)	.063 (1.60)	1.687 (42.85)	.578 (14.68)	.687 (17.45)	.719 (18.26)	1.000 (25.40)	.150 (3.81)
•CA00KE10S-*†	5/8-24UNEF-2A	.375 (9.52)	.063 (1.60)	1.781 (45.24)	.578 (14.68)	.687 (17.45)	.719 (18.26)	1.000 (25.40)	.150 (3.81)
CA00KE12S-*†	3/4-20UNEF-2A	.375 (9.52)	.063 (1.60)	1.687 (42.85)	.578 (14.68)	.781 (19.84)	.812 (20.62)	1.094 (27.79)	.150 (3.81)
CA00KE14S-*†	7/8-20UNEF-2A	.375 (9.52)	.063 (1.60)	1.687 (42.85)	.578 (14.68)	.906 (23.01)	.906 (23.01)	1.188 (30.18)	.150 (3.81)
CA00KE16S-*†	1-20UNEF-2A	.375 (9.52)	.063 (1.60)	1.687 (42.85)	.578 (14.68)	1.031 (26.19)	.969 (24.62)	1.281 (32.54)	.150 (3.81)
CA00KE16-*†	1-20UNEF-2A	.625 (15.88)	.078 (1.98)	2.094 (53.19)	.766 (19.46)	1.031 (29.36)	.969 (24.62)	1.281 (32.54)	.150 (3.81)
CA00KE18-*†	1-1/8-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.766 (19.46)	1.156 (29.36)	1.062 (26.97)	1.375 (34.92)	.177 (4.50)
CA00KE20-*†	1-1/4-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.766 (19.46)	1.344 (34.14)	1.156 (29.36)	1.500 (38.10)	.177 (4.50)
CA00KE22-*†	1-3/8-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.828 (21.03)	1.406 (35.71)	1.250 (31.75)	1.625 (41.28)	.177 (4.50)
CA00KE24-*†	1-1/2-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.828 (21.03)	1.625 (41.28)	1.375 (34.92)	1.750 (44.45)	.177 (4.50)
CA00KE28-*†	1-3/4-18UNS-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.891 (22.63)	1.781 (45.24)	1.562 (39.67)	2.000 (50.80)	.177 (4.50)
CA00KE32-*†	2-18UNS-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.891 (22.63)	2.031 (51.59)	1.750 (44.45)	2.250 (57.15)	.209 (5.31)
CA00KE36-*†	2-1/4-16UNS-2A	.625 (15.88)	.094 (2.39)	2.250 (57.15)	.891 (22.63)	2.281 (57.94)	1.938 (49.23)	2.500 (63.50)	.209 (5.31)

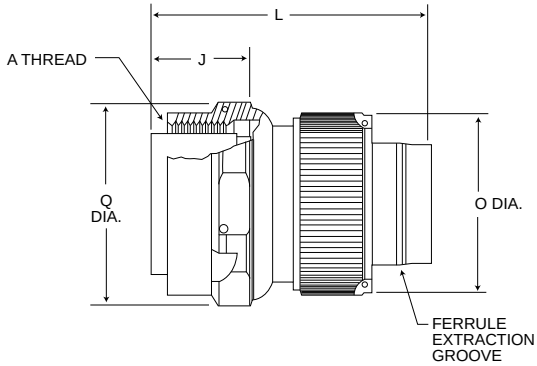
• Receptacles in size 10SL are available with pin inserts only. † Add contact type: P - pin; S - socket. * Add contact arrangement. See pages 216-217.

Straight Plug (Without Conduit Threads)

CA06KE







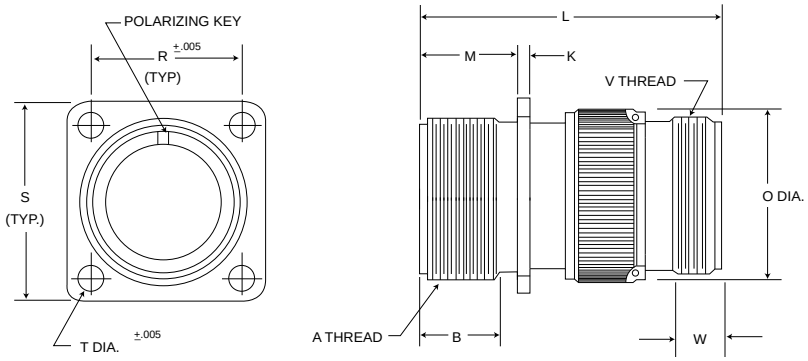
Part Number	A Thread	J	L	O	Q
CA06KE8S-*†	1/2-28UNEF-2B	.531 (13.49)	1.687 (42.85)	.531 (13.49)	.828 (21.03)
CA06KE10S-*†	5/8-24UNEF-2B	.531 (13.49)	1.687 (42.85)	.687 (17.45)	.969 (24.62)
•CA06KE10S-*†	5/8-24UNEF-2B	.531 (13.49)	1.687 (42.85)	.781 (19.84)	.969 (24.62)
CA06KE12S-*†	3/4-20UNEF-2B	.531 (13.49)	1.687 (42.85)	.781 (19.84)	1.047 (26.59)
CA06KE14S-*†	7/8-20UNEF-2B	.531 (13.49)	1.687 (42.85)	.906 (23.01)	1.125 (28.58)
CA06KE16S-*†	1-20UNEF-2B	.531 (13.49)	1.687 (42.85)	1.031 (26.19)	1.250 (31.75)
CA06KE16-*†	1-20UNEF-2B	.719 (18.26)	2.094 (53.19)	1.031 (26.19)	1.250 (31.75)
CA06KE18-*†	1-1/8-18UNEF-2B	.719 (18.26)	2.250 (57.15)	1.156 (29.36)	1.344 (34.14)
CA06KE20-*†	1-1/4-18UNEF-2B	.719 (18.26)	2.250 (57.15)	1.344 (34.14)	1.484 (37.69)
CA06KE22-*†	1-3/8-18UNEF-2B	.719 (18.26)	2.250 (57.15)	1.406 (35.71)	1.609 (40.87)
CA06KE24-*†	1-1/2-18UNEF-2B	.719 (18.26)	2.250 (57.15)	1.625 (41.28)	1.734 (44.04)
CA06KE28-*†	1-3/4-18UNS-2B	.719 (18.26)	2.250 (57.15)	1.781 (45.24)	1.984 (50.39)
CA06KE32-*†	2-18UNS-2B	.719 (18.26)	2.250 (57.15)	2.031 (51.59)	2.234 (56.74)
CA06KE36-*†	2-1/4-16UNS-2B	.719 (18.26)	2.250 (57.15)	2.281 (57.94)	2.484 (63.09)

• Plugs in size 10SL are available with socket inserts only. † Add contact type: P - pin; S - socket. * Add contact arrangement. See pages 216-217.
NOTE: Coupling nut has hex configuration on sizes 8S, 10S, 10SL, 12 and 24; knurled configuration on all others.

Wall Mounting Receptacle

CA3100KE





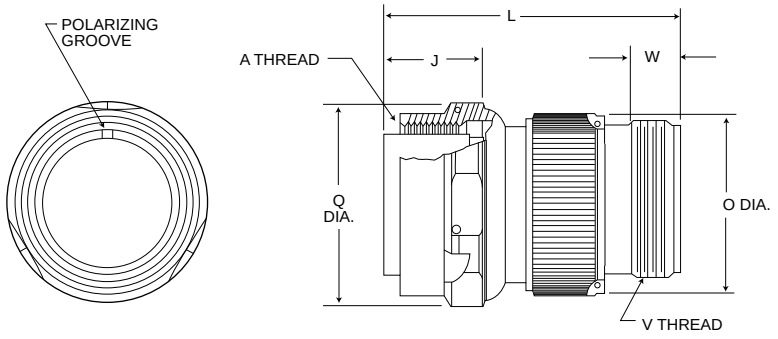
Part Number	A Thread	B	K	L	M	O	R	S	T	V Thread	W
CA3100KE8S-*†	1/2-28UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	.531 (13.49)	.594 (15.09)	.875 (22.22)	.150 (3.81)	1/2-28UNEF-2A	.375 (9.52)
CA3100KE10S-*†	5/8-24UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	.687 (17.45)	.719 (18.26)	1.000 (25.40)	.150 (3.81)	1/2-24UNEF-2A	.375 (9.52)
•CA3100KE10Sl-*†	5/8-24UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	.781 (19.84)	.719 (18.26)	1.000 (25.40)	.150 (3.81)	5/8-24UNEF-2A	.375 (9.52)
CA3100KE12S-*†	3/4-20UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	.781 (19.84)	.812 (20.62)	1.094 (27.79)	.150 (3.81)	5/8-20UNEF-2A	.375 (9.52)
CA3100KE14S-*†	7/8-20UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	.906 (23.01)	.906 (23.01)	1.188 (30.18)	.150 (3.81)	3/4-20UNEF-2A	.375 (9.52)
CA3100KE16S-*†	1-20UNEF-2A	.375 (9.52)	.063 (1.60)	2.000 (50.80)	.578 (14.68)	1.031 (26.19)	.969 (24.62)	1.281 (32.54)	.150 (3.81)	7/8-20UNEF-2A	.375 (9.52)
CA3100KE16-*†	1-20UNEF-2A	.625 (15.88)	.078 (1.98)	2.188 (55.58)	.766 (19.46)	1.031 (29.36)	.969 (24.62)	1.281 (32.54)	.150 (3.81)	7/8-20UNEF-2A	.375 (9.52)
CA3100KE18-*†	1-1/8-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.250 (57.15)	.766 (19.46)	1.156 (29.36)	1.062 (26.97)	1.375 (34.92)	.177 (4.50)	1-20UNEF-2A	.375 (9.52)
CA3100KE20-*†	1-1/4-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.313 (58.75)	.766 (19.46)	1.344 (34.14)	1.156 (29.36)	1.500 (38.10)	.177 (4.50)	1-3/16-18UNEF-2A	.375 (9.52)
CA3100KE22-*†	1-3/8-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.313 (58.75)	.828 (21.03)	1.406 (35.71)	1.250 (31.75)	1.625 (41.28)	.177 (4.50)	1-3/16-18UNEF-2A	.375 (9.52)
CA3100KE24-*†	1-1/2-18UNEF-2A	.625 (15.88)	.078 (1.98)	2.313 (58.75)	.828 (21.03)	1.625 (41.28)	1.375 (34.92)	1.750 (44.45)	.177 (4.50)	1-7/16-18UNEF-2A	.375 (9.52)
CA3100KE28-*†	1-3/4-18UNS-2A	.625 (15.88)	.078 (1.98)	2.688 (68.28)	.891 (22.63)	1.781 (45.24)	1.562 (39.67)	2.000 (50.80)	.177 (4.50)	1-7/16-18UNS-2A	.375 (9.52)
CA3100KE32-*†	2-18UNS-2A	.625 (15.88)	.078 (1.98)	2.375 (60.32)	.891 (22.63)	2.031 (51.59)	1.750 (44.45)	2.250 (57.15)	.209 (5.31)	1-3/4-18UNS-2A	.437 (11.10)
CA3100KE36-*†	2-1/4-16UN-2A	.625 (15.88)	.094 (2.39)	2.438 (61.93)	.891 (22.63)	2.281 (57.94)	1.938 (49.23)	2.500 (63.50)	.209 (5.31)	2-18UNS-2A	.500 (12.70)

• Recptacles in size 10SL are available with pin inserts only. † Add contact type: P - pin; S - socket. * Add contact arrangements. See pages 216-217.

Straight Plug

CA3106KE





Part Number	A Thread	J	L	O	Q	V Thread	W
CA3106KE8S-*†	1/2-28UNEF-2B	.531 (13.49)	2.000 (50.80)	.531 (13.49)	.828 (21.03)	1/2-28UNEF-2A	.375 (9.52)
CA3106KE10S-*†	5/8-24UNEF-2B	.531 (13.49)	2.000 (50.80)	.687 (17.45)	.969 (24.62)	1/2-24UNEF-2A	.375 (9.52)
•CA3106KE10Sl-*†	5/8-24UNEF-2B	.531 (13.49)	2.000 (50.80)	.781 (19.84)	.969 (24.62)	5/8-24UNEF-2A	.375 (9.52)
CA3106KE12S-*†	3/4-20UNEF-2B	.531 (13.49)	2.000 (50.80)	.781 (19.84)	1.047 (26.59)	5/8-20UNEF-2A	.375 (9.52)
CA3106KE14S-*†	7/8-20UNEF-2B	.531 (13.49)	2.000 (50.80)	.906 (23.01)	1.125 (28.58)	3/4-20UNEF-2A	.375 (9.52)
CA3106KE16S-*†	1-20UNEF-2B	.531 (13.49)	2.000 (50.80)	1.031 (26.19)	1.250 (31.75)	7/8-20UNEF-2A	.375 (9.52)
CA3106KE16-*†	1-20UNEF-2B	.719 (18.26)	2.188 (55.58)	1.031 (26.19)	1.250 (31.75)	7/8-20UNEF-2A	.375 (9.52)
CA3106KE18-*†	1-1/8-18UNEF-2B	.719 (18.26)	2.250 (57.15)	1.156 (29.36)	1.344 (34.14)	1-20UNEF-2A	.375 (9.52)
CA3106KE20-*†	1-1/4-18UNEF-2B	.719 (18.26)	2.313 (58.75)	1.344 (34.14)	1.484 (37.69)	1-3/16-18UNEF-2A	.375 (9.52)
CA3106KE22-*†	1-3/8-18UNEF-2B	.719 (18.26)	2.313 (58.75)	1.406 (35.71)	1.609 (40.87)	1-3/16-18UNEF-2A	.375 (9.52)
CA3106KE24-*†	1-1/2-18UNEF-2B	.719 (18.26)	2.313 (58.75)	1.625 (41.28)	1.734 (44.04)	1-7/16-18UNEF-2A	.375 (9.52)
CA3106KE28-*†	1-3/4-18UNS-2B	.719 (18.26)	2.688 (68.28)	1.781 (45.24)	1.984 (50.39)	1-7/16-18UNF-2A	.375 (9.52)
CA3106KE32-*†	2-18UNS-2B	.719 (18.26)	2.375 (60.32)	2.031 (51.59)	2.234 (56.74)	1-3/4-18UNS-2A	.437 (11.10)
CA3106KE36-*†	2-1/4-16UNS-2B	.719 (18.26)	2.438 (61.93)	2.81 (57.94)	2.484 (63.09)	2-18UNS-2A	.500 (12.70)

• Plugs in size 10SL are available with socket inserts only. † Add contact type: P - pin; S - socket. * Add contact arrangement. See pages 216-217.
NOTE: Coupling nut has hex configuration on sizes 8S, 10S, 10SL, 12 and 24; knurled configuration on all others.

Assembly Instructions

1. Disassemble the connector. See Figure 1 for component parts relationship for reassembly after wiring.
*2. Remove ceramic retaining ring from contact by sliding the retaining ring back, compressing the bushing until the ring can be slipped away from the contact (see Figure 2).
3. Crimp pin or socket contact to wire.
4. Slip endbell or ferrule retaining nut (whichever is used) over wire bundel (see Figure 3).
5. Slip ferrule over wire bundle (see Figure 3).
6. Push contact (pin or socket) thru rear of grommet and rear insulator. (Note that the contact is inserted into the end of the grommet that shows the layout identification.) Contact should extend sufficiently to accomplish Step 7.
7. After the wired contacts have been inserted thru the rear insulator and grommet, install the ceramic contact retaining ring (Figure 2). Slip on the small diameter of the contact (diameter B). Push the ceramic ring up and onto the larger diameter of the contact (diameter A). The ceramic ring should then be in place. The rubber bushing (which is already on the contact) compresses to allow this assembly, and also keeps the ceramic ring in place after assembly.
8. Seat each contact individually in rear insulator (see Figure 4), Pulling rear insulator so it is tight against the grommet.
9. Assemble front insulator onto engaging end of contacts.
10. Slide ferrule down wire bundle over grommet, making sure that grommet is lubricated per assembly drawing (see Figure 4).
11. Insert this assembly into shell or barrel (whichever is applicable) being careful to polarize correctly.
12. Slide endbell or ferrule retaining nut down wire bundle and screw onto shell/barrel. When properly assembled the layout identification will be visible.

Fig. 1

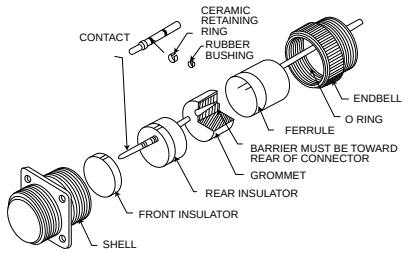


Fig. 2

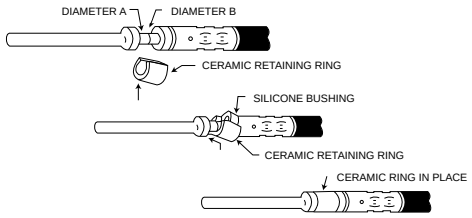


Fig. 3

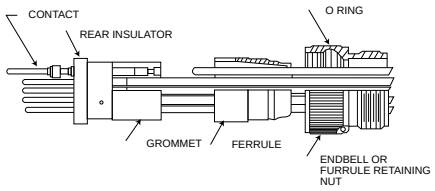
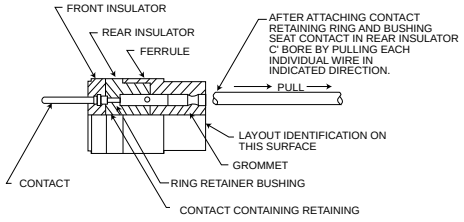


Fig. 4



***NOTE: For CA-KE Assembly** it is not neccessary to remove the ceramic retaining ring used on size 16 and 12 contacts for CA-KE **providing** that the crimp tool M22520/1-01 is used with the TH118 turret. However, the formica ring must be removed if using the crimp tools.

When using the MS3191-1 (or CCT-1612) crimp tool with property locator, both the ceramic or formica retaining ring for sizes 16 and 12 contacts must be removed. For sizes 8, 4, and 0 contacts, the ceramic or formica retaining rings must be removed before crimping.

Contacts, Crimp Tools, Contact Part Numbers

Contacts and Crimp Tools						Contact Assembly Kit With Retaining Ring and Bushing	
Contact Size	**Part Number**	**Wire Accomm.**	**Crimp Tool**	**Locator**	**Crimp Head***	**Contact Size**	**Kit Part Number**
16 Pin/8S-16S	030-1133-000	16-18-20	M22520/1-01 or MS3191-1	TH118 Turret/L16-3191-2	-	16 Pin/8S-16S	038586-0000
16 Pin/12-36	030-1082-000	16-18-20	M22520/1-01 or MS3191-1	TH118 Turret/L16-3191-9	-	16 Pin/12-36	038588-0000
16 Socket/8S-16S	031-0731-000	16-18-20	M22520/1-01 or MS3191-1	TH118 Turret/L16-3191-2	-	16 Socket/8S-16S	038587-0000
16 Socket/12-36	031-0706-000	16-18-20	M22520/1-01 or MS3191-1	TH118 Turret/L16-3191-11	-	16 Socket/12-36	038589-0000
12 Pin	030-1134-000	12-14	M22520/1-01 or MS3191-1	TH118 Turret/L12-3191-5	-	12 Pin	038590-0000
12 Socket	031-0732-000	12-14	M22520/1-01 or MS3191-1	TH118 Turret/L12-3191-1	-	12 Socket	038591-0000
8 Pin	030-1135-000	8	CBT600B or CBT600	CCHP8-7	CCH8-1	8 Pin	038592-0000
8 Socket	031-0733-000	8	CBT600B or CBT600	CCHP8-7	CCH8-1	8 Socket	038593-0000
4 Pin	030-1212-000	4	CBT600B or CBT600	CCHP4-7	CCH4-1	4 Pin	038594-0000
4 Socket	031-0770-000	4	CBT600B or CBT600	CCHP4-7	CCH4-1	4 Socket	038595-0000
0 Pin	030-1734-000	0	6BT600B	CCHP0-7	CCH0-1	0 Pin	031-1176-000
0 Socket	031-0975-000	0	6BT600B	CCHP0-7	CCH0-1	0 Socket	031-1177-000

* Crimp heads are applicable for contact sizes 8, 4, and 0.