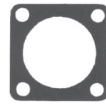
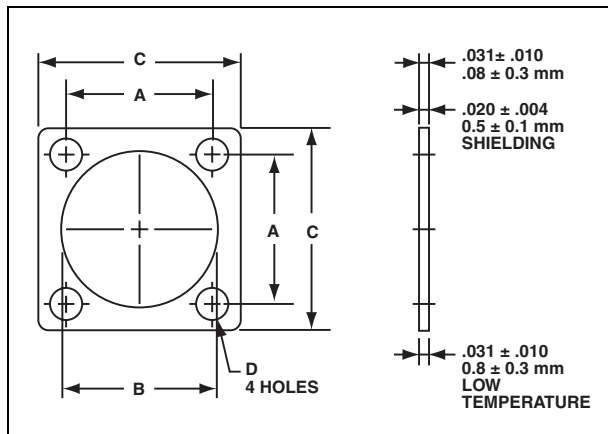


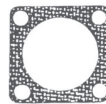
GT Connectors – accessories

10-40450, 10-36675, 10-580649 sealing gaskets



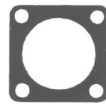
PLAIN FLAT GASKET

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 $\pm .010$	Front Panel Versions B $+ .016$ $- .000$	Rear Panel Version B $+ .016$ $- .000$	C $+ .016$ $- .000$	D $\pm .010$
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 ± 0.2	Front Panel Versions B $+ 0.4$ $- 0.0$	Rear Panel Version B $+ 0.4$ $- 0.0$	C $+ 0.4$ $- 0.0$	D ± 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

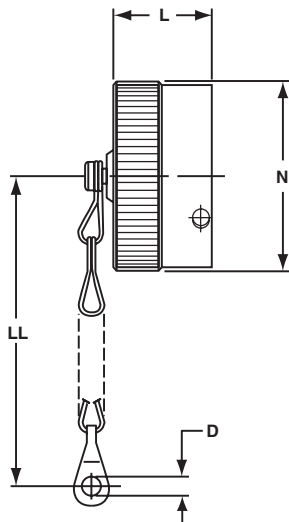
Order Data for Rear Panel Mount Gaskets	
Rear Panel Plain Version	Rear Panel Low Smoke ZH Version
10-580649-11	LS-580649-11
10-580649-14	LS-580649-14
10-580649-16	LS-580649-16
10-580649-18	LS-580649-18
10-580649-20	LS-580649-20
10-580649-22	LS-580649-22
10-580649-24	LS-580649-24
10-580649-26	LS-580649-26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

GT Connectors – accessories

receptacle protection caps

- Protective metal caps which seal the front of receptacles
- Includes a chain for retention of the cap at the required location
- For receptacles: GT00, 01, 02, 020, 030, 070

* 10-580902-XXX



* To complete order number, add shell size and suffix number. For example, shell size 11 with olive drab cadmium plate would be 10-580902-113.

Inches

Shell Size	D + .020 – .000	L Max.	N Max.	LL 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 + 0.5 – 0.0	L Max.	N Max.	LL 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.

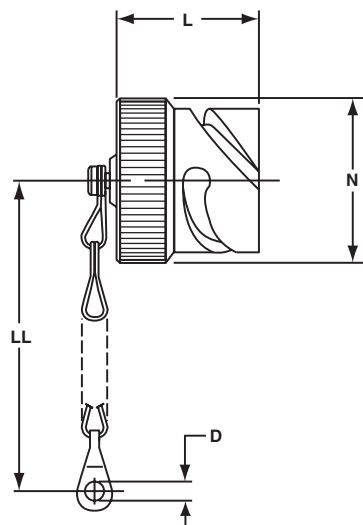
Finish	Suffix
Black anodize	-XXZ
Olive drab cadmium plate	-XX3
Olive drab cadmium nickel base	-XX9
Electroless nickel	-XXG
Green zinc cobalt	-XXU
Black zinc cobalt	-XXY

GT Connectors – accessories

plug protection caps

- Protective metal caps which seal the front of plugs
- Includes a chain for retention of the cap at the required location
- For plugs: GT06, 08

* 10-580903-XXX



* To complete order number, add shell size and suffix number. For example, shell size 11 with olive drab cadmium plate would be 10-580903-113.

Inches

Shell Size	D + .020 – .000	L Max.	N Max.	LL 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

Finish	Suffix
Black anodize	-XXZ
Olive drab cadmium plate	-XX3
Olive drab cadmium nickel base	-XX9
Electroless nickel	-XXG
Green zinc cobalt	-XXU
Black zinc cobalt	-XXY

Millimeters

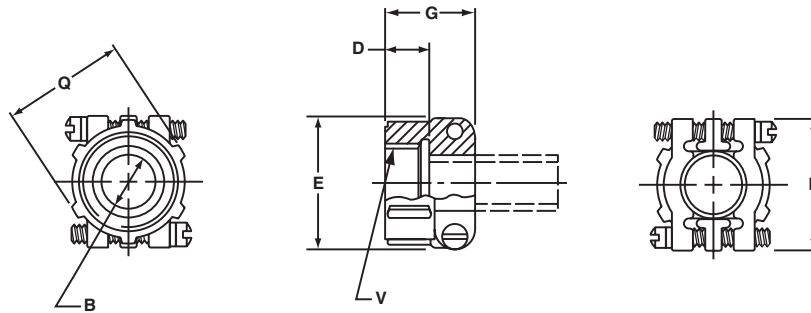
Shell Size	D + 0.5 – 0.0	L Max.	N Max.	LL Approx.
11	4.0	24	20.5	127
14	4.0	24	26.9	127
16	4.0	24	29.7	127
17	4.0	24	29.7	127
18	4.0	24	33.1	127
20	4.8	32	36.5	140
22	4.8	32	39.7	140
24	4.8	32	43.2	140
28	4.8	32	49.0	190
32	5.6	32	55.7	190
36	5.6	32	61.9	190
40	5.6	32	67.7	190

All dimensions for reference only.

GT Connectors – accessories

MS3057-A style cable clamp

- Concentric cable clamps, insure strain relief and central location of the cable
- Can be used with bushing MS3420



Inches

Part Number	Used with Shell Size	Used with Bushing	B	D	G	F	V Thread Class 2B
97-3057-1004	10SL	MS3420-4	.315	.395	.812	.866	.6250-24 UNEF
97-3057-1007	14S	MS3420-6	.442	.395	.875	1.063	.7500-20 UNEF
97-3057-1008	16 - 16S	MS3420-8	.568	.395	.945	1.145	.8750-20 UNEF
97-3057-1010	18	MS3420-10	.633	.395	.945	1.244	1.0000-20 UNEF
97-3057-1012	20 - 22	MS3420-12	.758	.395	.945	1.475	1.1875-18 UNEF
97-3057-1016	24 - 28	MS3420-16	.948	.395	1.031	1.700	1.4375-18 UNEF
97-3057-1020	32	MS3420-20	1.256	.460	1.094	2.055	1.7500-18 UNS
97-3057-1024	36	MS3420-24	1.380	.520	1.157	2.265	2.0000-18 UNS
10-824810-028	40	MS3420-28	1.625	.520	1.685	2.683	2.2500-16 UN

Millimeters

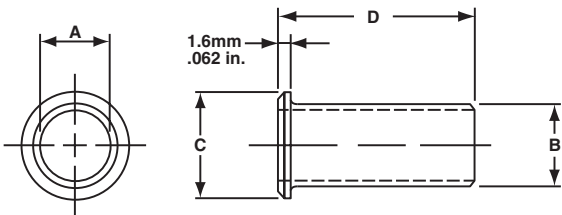
Part Number	Used with Shell Size	Used with Bushing	B	D	G	F
97-3057-1004	10SL	MS3420-4	8.0	10.0	20.6	22
97-3057-1007	14S	MS3420-6	11.0	10.0	22.2	27
97-3057-1008	16 - 16S	MS3420-8	14.4	10.0	24.0	29
97-3057-1010	18	MS3420-10	16.1	10.0	24.0	32
97-3057-1012	20 - 22	MS3420-12	19.2	10.0	24.0	37
97-3057-1016	24 - 28	MS3420-16	24.1	10.0	26.2	43
97-3057-1020	32	MS3420-20	31.9	11.7	27.8	52
97-3057-1024	36	MS3420-24	35.0	13.2	29.4	58
10-824810-028	40	MS3420-28	41.3	13.2	42.8	68

All dimensions for reference only.

GT Connectors – accessories

MS3420 bushing

- Bushing of synthetic rubber to be used with cable clamps for protection of the cable or wires
- Can be telescoped for smaller cable diameters



Inches

Part Number	Used with Cable Clamp	A	B	C	D
MS3420-3	M85049/41-3A	.130	.210	.379	2.875
MS3420-4	M85049/41-4A	.220	.302	.505	2.750
MS3420-6	M85049/41-6A	.312	.427	.619	2.625
MS3420-8	M85049/41-8A	.437	.552	.744	2.500
MS3420-10	M85049/41-10A	.562	.615	.889	2.375
MS3420-12	M85049/41-12A	.625	.740	1.084	2.250
MS3420-16	M85049/41-16A	.750	.927	1.314	2.125
MS3420-20	M85049/41-20A	.937	1.240	1.598	2.000
MS3420-24	M85049/41-24A	1.250	1.365	1.847	1.875
MS3420-28	M85049/41-28A	1.375	1.614	2.085	1.750

Millimeters

Part Number	Used with Cable Clamp	A	B	C	D
MS3420-3	M85049/41-3A	3.30	5.3	9.60	73.0
MS3420-4	M85049/41-4A	5.58	7.7	12.80	69.8
MS3420-6	M85049/41-6A	7.92	10.8	15.70	66.8
MS3420-8	M85049/41-8A	11.09	14.0	18.90	63.5
MS3420-10	M85049/41-10A	14.27	15.6	22.58	60.3
MS3420-12	M85049/41-12A	15.87	18.8	27.50	57.1
MS3420-16	M85049/41-16A	19.05	23.5	33.40	53.9
MS3420-20	M85049/41-20A	23.79	31.5	40.60	50.8
MS3420-24	M85049/41-24A	31.75	34.7	46.90	47.6
MS3420-28	M85049/41-28A	34.92	41.0	52.90	44.4

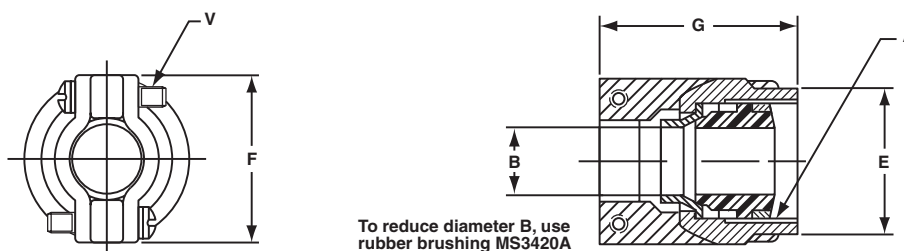
All dimensions for reference only.

GT Connectors – accessories

MS3057-C style (10-350349) cable clamp

- Waterproof clamp for jacketed cables
- Provides mechanical strain relief plus concentric clamping over a wide range of cable sizes
- A neoprene* gland seal ensures a waterproof seal on the cable jacket

* Other materials available



Part Number	Used with Shell Size	A Thread Class 2B in inches	V Thread Class 2A in inches	Used with Bushing	Bushing Opening Inches		Busing Opening Millimeters	
					Open	Closed	Open	Closed
10-350349-123	10SL	.6250-24 UNEF	6-32 UNC	MS3420-4A	.219	.010	5.56	0.25
10-350349-143	14S	.7500-20 UNEF	6-32 UNC	MS3420-6A MS3420-4A	.312 .219	.114 .020	7.93 5.56	2.89 0.50
10-350349-163	16 & 16S	.8750-20 UNEF	6-32 UNC	MS3420-8A MS3420-6A	.437 .312	.220 .085	11.10 7.93	5.60 2.15
10-350349-183	18	1.0000-20 UNEF	6-32 UNC	MS3420-10A MS3420-6A	.437 .312	.197 .085	11.10 7.93	5.00 2.15
10-350349-203	20 & 22	1.1875-18 UNEF	8-32 UNC	MS3420-12A MS3420-8A	.541 .437	.270 .177	13.74 11.10	6.85 4.50
10-350349-243	24 & 28	1.4375-18 UNEF	8-32 UNC	MS3420-16A MS3420-12A MS3420-8A	.748 .541 .437	.429 .260 .186	19.00 13.74 11.10	10.90 6.60 4.72
10-350349-323	32	1.7500-18 UNS	.250-20 UNC	MS3420-20A MS3420-16A MS3420-12A	.937 .748 .541	.620 .441 .273	23.80 19.00 13.74	15.74 11.20 6.93
10-350349-363	36	2.0000-18 UNS	.250-20 UNC	MS3420-24A MS3420-20A MS3420-16A	1.122 .937 .748	.681 .504 .358	28.50 23.80 19.00	17.30 12.80 9.10
10-350349-403	40	2.2500-16 UN	.250-20 UNC	MS3420-28A MS3420-20A MS3420-16A	1.250 .937 .748	.815 .512 .368	31.75 23.80 19.00	20.70 13.00 9.34

Part Number	Used with Shell Size	B		E ± .016	F ± .008	G + .020 - .000
		Open	Closed			
10-350349-123	10SL	.312	.094	.748	.890	1.272
10-350349-143	14S	.438	.230	.874	1.016	1.272
10-350349-163	16 & 16S	.531	.315	1.000	1.106	1.272
10-350349-183	18	.625	.378	1.122	1.220	1.390
10-350349-203	20 & 22	.748	.445	1.311	1.469	1.406
10-350349-243	24 & 28	.937	.610	1.559	1.654	1.516
10-350349-323	32	1.250	.921	1.874	2.126	1.764
10-350349-363	36	1.378	.921	2.122	2.248	2.031
10-350349-403	40	1.624	1.177	2.374	2.500	2.031

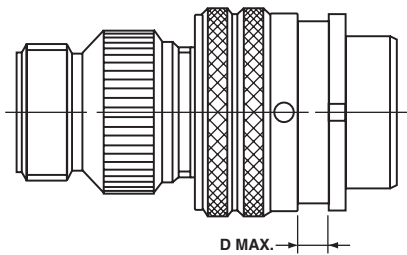
All dimensions for reference only.

Part Number	Used with Shell Size	B		E ± 0.4	F ± 0.2	G + 0.5 - 0.0
		Open	Closed			
10-350349-123	10SL	7.93	2.38	19.0	22.6	32.3
10-350349-143	14S	11.12	5.84	22.2	25.8	32.3
10-350349-163	16 & 16S	13.48	8.00	25.4	28.1	32.3
10-350349-183	18	15.87	9.60	28.5	31.0	35.3
10-350349-203	20 & 22	19.00	11.30	33.3	37.3	35.7
10-350349-243	24 & 28	23.80	15.50	39.6	42.0	38.5
10-350349-323	32	31.75	23.40	47.6	54.0	44.8
10-350349-363	36	35.00	23.40	53.9	57.1	51.6
10-350349-403	40	41.25	29.90	60.3	63.5	51.6

GT – accessories

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

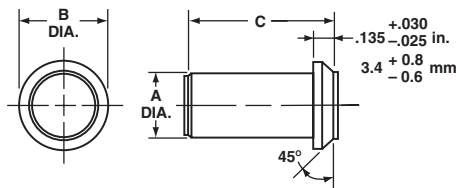
**REAR MOUNTING DATA
MAXIMUM PANEL THICKNESS**



Size	Dimension D			
	GT00/020		GT030	
	Inches	(mm)	Inches	(mm)
10SL	.146	3.70	.303	7.70
14S	.146	3.70	.303	7.70
16S	.146	3.70	.303	7.70
16	.145	3.70	.242	6.15
18	.145	3.70	.303	7.70
20	.145	3.70	.303	7.70
22	.145	3.70	.303	7.70
24	.207	5.25	.303	7.70
28	.207	5.25	.343	8.70
32	.241	6.10	.309	7.85
36	.241	6.10	.309	7.85
40	.237	6.02	.309	7.85

SEALING PLUG 10-405996-XX

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



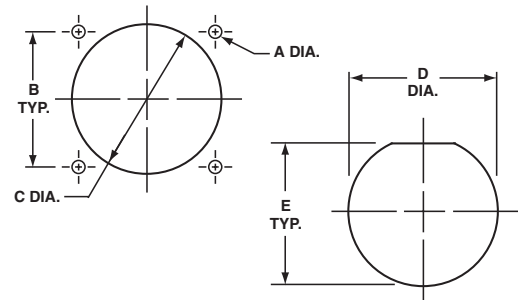
Order No.	Contact Size	Wire Size	Color Code	Inches		
				A Dia. ±.010	B ±.005	C ±.010
10-405996-16	16	20-16	Blue	.083	.133	.564**
10-405996-12	12	14-12	Yellow	.121	.171	.564**
10-405996-8	8	10-8	Red	.185	.315	.470
10-405996-4	4	4-6	Blue	.310	.415	.470
10-405996-0	0	0-2	Yellow	.440	.605	1.000

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

** ± .020 (in.) *** ± 0.5 (mm)

**GROMMET HOLE
SEALING RANGES**

Hole Size	Sealing Range	
	(mm)	Inches
16	1.62 – 3.3	.064 – .130
12	2.89 – 4.31	.114 – .170
8	4.16 – 6.47	.164 – .255
4	6.9 – 9.3	.272 – .370
0	10.5 – 13.97	.415 – .550



PANEL CUT-OUT DIMENSIONS

Shell Size	A Dia. Hole Size	Connector Styles				
		02, 020, 00, 030	Front Mount 02, 00, 020	Rear Mount 030	Jam Nut 070	Jam Nut 070
		B ±.004	C Dia.	C Dia.	D Dia.	E
10SL	.126	.717	11/16	1 3/4	7/8	.83
14S	.126	.906	13/16	1	1 1/8	1.08
16S/16	.126	.969	15/16	1 1/8	1 1/4	1.21
18	.126	1.063	1 1/16	1 1/4	1 3/8	1.32
20	.126	1.157	1 3/16	1 3/8	1 1/2	1.45
22	.126	1.252	1 5/16	1 1/2	1 5/8	1.57
24	.146	1.374	1 7/16	1 5/8	1 3/4	1.70
28	.146	1.563	1 11/16	1 7/8	2	1.95
32	.169	1.752	1 15/16	2 1/8	2 1/4	2.20
36	.169	1.937	2 1/8	2 3/8	2 1/2	2.45
40	.169	2.185	2 3/8	2 5/8	2 3/4	2.70

All dimensions for reference only.

GT Connectors

crimp contacts and application tools

Machined from copper alloys and silver or gold plated for maximum corrosion resistance, with a minimum millivolt 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 SIZE	WIRE WELL	Crimp Tools	Positioner/ Die Set	Locator/ Color						
PIN CONTACT		SOCKET CONTACT												
SILVER	GOLD(“D”)	SILVER	GOLD(“D”)											
10-40553	10-597160-15D	10-597109-161	10-597109-16D	16S	16-18-20	Daniels AF8 or Equivalent	TH29-1 or 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 Equivalent	TH29-1 or Equivalent	Pin - Blue 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									
10-606014-121	10-597160-12D	10-597109-131	10-597109-13D	12	12-14					Daniels AF8 or Equivalent	TH29-1 or Equivalent	Green		
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 Equivalent	TH29-1 or Equivalent					Green		
10-40792	10-597160-8D	10-40793	10-597109-8D		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	12	18-20			Daniels AF8 or Equivalent	TH29-1 or Equivalent			Green		
10-606014-201	10-597160-20D	10-597109-201	10-597109-20D		20-22									
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									
10-606014-321	10-597160-28D	10-606015-321	10-597109-28D		10-12									
10-606014-381	10-597160-38D	10-597109-381	10-597109-38D	4	12-14					Daniels AF8 or Equivalent	TH29-1 or Equivalent	Pico Pin - Blue Socket - Green		
10-40564	10-597160-4D	10-40565	10-597109-4D		4									
10-606014-58	10-597160-58D	10-597109-581	10-597109-58D		6									
10-606014-331	10-597160-35D	10-597109-351	10-597109-35D		8									
10-606014-44	10-597160-44D	10-606015-441	10-597109-44D		10									
10-581806-000	10-597160-1D	10-581808-000	10-597159-1D	0	0	Daniels AF8 or Equivalent	TH29-1 or Equivalent					Pin - Blue Socket - Green		
10-606014-341	10-597160-29D	10-597109-291	10-597109-29D		0-2									
10-606014-351	10-597160-30D	10-606015-351	10-597109-30D		4									
10-597276-48	10-597276-48D	10-606015-48	10-597109-48D	2/0	2/0							Pico 400BHD	Pico 414DA-8N	Pico Pin - 4025 Socket - 4026
10-597276-47	10-597276-47D	10-606015-47	10-597109-47D	4/0	4/0									
								Pico 400BHD	Pico 414DA-4N			Pico 4043		
								Pico 400BHD	Pico 414DA-0N			Pico Pin - 4042-1 Socket - 4042		
								Pico 500	Pico 514DA2/0N	Pico Pin - 6490				
								Pico 500	Pico 514DA4/0N	Socket - 6491				

See page 87 for further contact information applicable to both crimp and solder contacts.
Additional contact variations including thermocouple and RADSOK power contacts are available; consult Amphenol, Sidney, NY for information.

GT Connectors

solder contacts

Machined copper alloy contacts in a full range of sizes, with closed entry socket design in the size 12 and 16 contacts. A heavy silver-plated finish is deposited on all MS style solder contacts for maximum corrosion resistance, maximum current carrying capacity and low millivolt drop. Gold plated contacts are also available. (See how to order, pg. 88).

Pin/ Socket	Mating End Size	Wire Barrel Size	Allowable Wire Size	Test Current** Amps
Pin	16 Short†	16	16	13
Socket			18	10
			20	7.5
			22	5
Pin	16 Long	16	16	13
Socket			18	10
			20	7.5
			22	5
Pin	12	12	12	23
Socket			14	17
Pin	8	8	8	46
Socket			10	33
Pin	4	4	4	80
Socket			6	60
Pin	0	0	0	150
Socket			1	125
			2	100

** 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.

† The 10SL, 14S and 16S connectors require short contacts.

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.