

ITT Cannon hermetically sealed GS connectors are designed for applications where a vacuum, inert gas, or a constant or controlled pressure is required to eliminate adverse effects created by atmospheric changes.

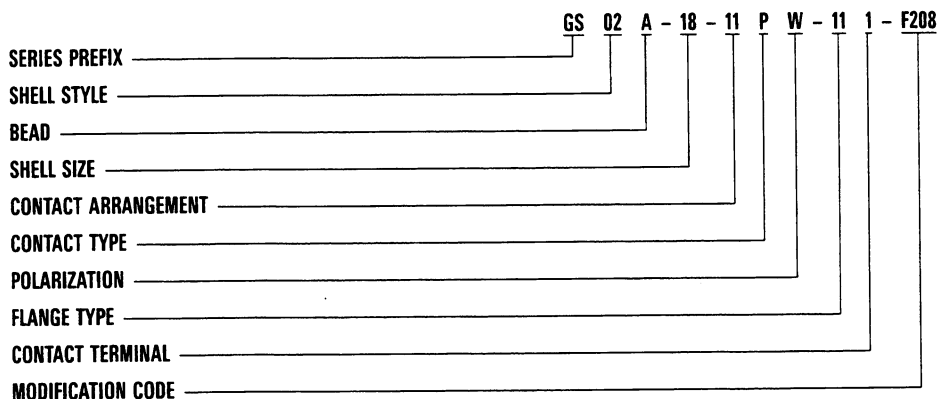
These connectors have broad-base commercial, military and industrial applications where extreme operating conditions require a hermetically sealed container. Developed for use in relays, position indicators, tachometers, direction finders and aircraft instruments, GS connectors have been used heavily in commercial and private aircraft, and on spacecraft fuel tanks and sensors. Other applications include air conditioning, home refrigeration units, nuclear instrumentation, and control rod cables in power plant test chambers.

GS connectors are hermetically sealed with compression glass to prevent air leakage in excess of 1×10^{-5} standard cubic centimeters per second at 1 atmosphere. Standard hermetic receptacles are available with either solder pot or eyelet contacts. Thermocouple contacts are also available in some configurations (see page 31.)

The standard material for shells and contacts is steel with tin over cadmium finish on GS02/GS06 connectors and clear chromate coating over cadmium (A105) on BFH/TBFH connectors. Other materials and finishes can be supplied to meet specific applications.

GS connectors are manufactured to ITT Cannon specifications and meet the Instrument Service Voltage Rating of MIL-C-5015. Asterisked contact arrangements (solid glass web design) shown on page 26 meet MS specified voltage ratings. Connectors with higher voltage ratings are also available upon request. Salt spray, shock and vibration requirements, and mating dimensions all approximate the requirements of MIL-C-5015 and can be contractually approved for military applications.

How To Order



PREFIX

GS - Glass sealed

SHELL STYLE

- 02 - Receptacle (with male threads)
- 06 - Receptacle (with coupling nut)

BEAD

Layouts marked with (*) on pages 24-25 are tooled with a solid bead. Add designator "A" to order individual bead.

SHELL SIZE

Coupling thread diameter figured in sixteenths of an inch

CONTACT ARRANGEMENT

See pages 24-25.

CONTACT TYPE

P for pin; S for socket.

ALTERNATE INSERT POSITION

See page 27.

FLANGE TYPE

- 00 - Flangeless (standard flange for BFH)
- 11 - Square flange
- 25 - Circular flange
- 30 - Hex flange, with hex locknut

CONTACT TERMINAL

- 1 - Eyelet
- 2 - Solder pot
- 3 - Short solder pot
- B11 - Weldable

MODIFICATION CODE

F208 - Stainless steel (304L type) hardware, contacts .00005 min. gold over nickel
Consult factory for other modification codes.

Standard Data

ELECTRICAL SERVICE DATA

Maximum current ratings of contacts and maximum allowable voltage drop under test conditions when assembled as in service are shown below. Maximum total current to be carried per connector is the same as that allowable in wire bundles as specified in MIL-W-5088.

Contact Size	Test Current (amps)	Potential Drop (millivolts)
16	10	125
12	17	125
8	33	125
4	60	125
0	100	125

Per para. 3.6.3 of MIL-C-5015 (Reference)

HIGH POTENTIAL TEST VOLTAGE

MS connectors show no evidence of breakdown when the test voltage given below is applied between the two closest contacts and between the shell and the contacts closest to the shell for a period of one minute.

MS Service Rating	Test Voltage (RMS) 60 cps	Suggested* Operating Voltages		Air Spacing nom. inches	Creepage Distance nom. inches
		DC	AC (rms)		
Inst.	1000	250	200		1/16
A	2000	700	500	1/16	1/8
D	2800	1250	900	1/8	3/16
E	3500	1750	1250	3/16	1/4
B	4500	2450	1750	1/4	5/16
C	7000	4200	3000	5/16	1

*As indicated in previous MS Specification and to be used by the designer only as a guide.

Contact Arrangements

Shell Size No. of Contacts Service Rating	 8S-1 1-#16 A	 10S2 1-#16 A	 *10SL-4 2-#16 A	 *10SL-3 3-#16 A	 10SLA-4 5-#20 A	 12S-4 1-#16 D	 *12S-3† 2-#16 A	 12SA-10 4-#16 Inst.	 14S-9† 2-#16 A
Shell Size No. of Contacts Service Rating	 14S-1 3-#16 A	 14S-7† 3-#16 A	 *14S-2† 4-#16 Inst.	 14S-5† 5-#16 Inst.	 14S-6 6-#16 Inst.	 16S-4† 2-#16 D	 16-11† 2-#12 A	 16-10† 3-#12 A	
Shell Size No. of Contacts Service Rating	 16-9† 2-#16 (B, D) 2-#12 (A, C) A	 16S-8† 5-#16 A	 16S-1† 7-#16 A	 18-4† 4-#16 D	 18-10† 4-#12 A	 18-11† 5-#12 A	 18-12† 6-#16 A		
Shell Size No. of Contacts Service Rating	 18-9† 5-#16 (B, C, E-G) 2-#12 (A, D) Inst.	 18-8† 7-#16 (A-G) 1-#12 (H) A	 18-1† 10-#16 A (B, C, F, G) Inst. (all others)	 20-19† 3-#8 A	 20-24† 2-#16 (A, C) 2-#8 (B, D) A	 20-4† 4-#12 D			
Shell Size No. of Contacts Service Rating	 20-14† 3-#12 (C, D, E) 2-#8 (A, B) A	 20-8† 4-#16 (B, C, E, F) 2-#8 (A, D) Inst.	 20-17† 1-#16 (F) 5-#12 (A-E) A	 20-22† 3-#16 (B, D, F) 3-#8 (A, C, E) A	 20-15† 7-#12 A	 20-7† 8-#16 A (C, F) D (all others)			
Shell Size No. of Contacts Service Rating	 20-16† 7-#16 (A-G) 2-#12 (H, I) A	 20-18† 6-#16 (A, C-E, G, H) 3-#12 (B, F, I) A	 20-27† 14-#16 A	 20-29† 17-#16 A	 20-33 11-#16 A	 22-2† 3-#8 D			
Shell Size No. of Contacts Service Rating	 22-9† 3-#12 E	 22-22† 4-#8 A	 22-5† 4-#16 (A, C, D, F) 2-#12 (B, E) D	 22-18† 8-#16 A (C-E) D (all others)	 22-23† 8-#12 D (H) A (all others)	 22-20† 9-#16 A			

† MS polarization
† † ITT Cannon polarization
* Tooled with solid bead

Shell Size No. of Contacts 22-19† 14-#16	Shell Size No. of Contacts 22-14† 19-#16	Shell Size No. of Contacts 24-4† 3-#16 (B, C, D) 1-#0 (A)	Shell Size No. of Contacts 24-2† 7-#12	Shell Size No. of Contacts 24-10† 7-#8	Shell Size No. of Contacts 24-27† 7-#16
Service Rating A	Service Rating A	Service Rating D	Service Rating A	Service Rating E	

Shell Size No. of Contacts 24-20† 9-#16 (A-D, G-L) 2-#12 (E, F)	Shell Size No. of Contacts 24-11† 6-#12 (A-C, G-I) 3-#8 (D-F)	Shell Size No. of Contacts 24A-24†† 12-#12	Shell Size No. of Contacts 24-19 12-#16	Shell Size No. of Contacts 24-7† 14-#16 (A-M, O) 2-#12 (P, N)	Shell Size No. of Contacts 24-28† 24-#16
Service Rating D	Service Rating A	Service Rating Inst.	Service Rating A	Service Rating Inst.	Service Rating Inst.

Shell Size No. of Contacts 28A-16 5-#16 (A, D-F, J) 4-#4 (B, C, G, H)	Shell Size No. of Contacts 28-9† 6-#16 (A, H-M) 6-#12 (B-G)	Shell Size No. of Contacts 28-20† 4-#16 (K-N) 10-#12 (A-J, P)	Shell Size No. of Contacts 28-17† 15-#16	Shell Size No. of Contacts 28-11† 18-#16 (A-I, N-X) 4-#12 (J-M)
Service Rating D	Service Rating A	Service Rating A	Service Rating A (A-L), B (R), D (M-P)	Service Rating A

GS

Shell Size No. of Contacts 28-12† 26-#16	Shell Size No. of Contacts 28-15† 35-#16	Shell Size No. of Contacts 28-21† 37-#16	Shell Size No. of Contacts 32-15† 6-#12 (B-F, H) 2-#0 (A, G)	Shell Size No. of Contacts 32-17† 4-#4
Service Rating A	Service Rating A	Service Rating A	Service Rating D	Service Rating D

Shell Size No. of Contacts 32-6† 16-#16 (A-O, S) 2-#12 (U, V) 3-#8 (P-T), 2-#4 (W, X)	Shell Size No. of Contacts 32-8† 24-#16 (A-L, T-Z, a-e) 6-#12 (M-S)	Shell Size No. of Contacts 32-7† 28-#16 (A-N, W-Z, a-k) 7-#12 (O-V)	Shell Size No. of Contacts 32A-10†† 54-#16
Service Rating A	Service Rating A	Service Rating Inst. (A, B, h, j) A (all others)	Service Rating A

For new equip. design use 28-21

Shell Size No. of Contacts 36-5† 4-#0	Shell Size No. of Contacts 36-9† 14-#16 (A-G, Z-f) 14-#12 (H-N, S-Y) 2-#8 (O, R), 1-#4 (P)	Shell Size No. of Contacts 36-7† 40-#16 (A-Z, a-s) 7-#12 (t-z)	Shell Size No. of Contacts 36-10† 48-#16
Service Rating A	Service Rating A	Service Rating A	Service Rating A

†MS polarization
††ITT Cannon polarization

Shell Sizes and Contact Arrangements

Shell sizes are based on the diameter of the coupling threads in sixteenths of an inch; for example, size 22 shell has a coupling thread diameter of 22/16 inch, which equals 1-3/8. In the contact arrangement section, pages 24-25 the shell size and contact arrangement number are shown in combination, e.g., 8S-1, 22-2 or 24-7. The digits (8S, 22, and 24) preceding the dash refer to the shell size. The digits (-1, -2 and -7) following the dash are the contact arrangement numbers.

GS02 CONTACT ARRANGEMENTS — SOCKETS

12S-3S	18-8S	22-5S	28-17S
14S-1S	18-9S	22-9S	28-20S
14S-2S	18-10S	22-14S	28-21S
14S-5S	18-12S	22-19S	32-7S
14S-6S	20-4S	22-22S	32-8S
14S-7S	20-7S	24-2S	32-15S
14S-9S	20-8S	24-7S	32-17S
16S-1S	20-15S	24-10S	36-5S
16S-4S	20-16S	24-20S	36-7S
16S-8S	20-17S	24-28S	36-10S
16-9S	20-18S	28-9S	40A-27S
16-10S	20-24S	28-11S	
16-11S	20-27S	28-12S	
18-1S	20-29S	28-15S	
18-4S	20-33S		

GS02 CONTACT ARRANGEMENTS — PINS

8S-1P	*18-1P	22-2P	*28-11P
10S-2P	18-4P	22-5P	28-12P
*10SL-3P	18-8P	22-9P	28-15P
*10SL-4P	18-9P	22-14P	28-17P
*10SLA4	18-10P	22-18P	28-20P
*12S-3P	18-11P	22-19P	*28-21P
12S-4P	18-12P	22-20P	*28A16
*12SA10	20-4P	22-22P	*32-6P
14S-1P	20-7P	22-23P	*32-7P
*14S-2P	20-14P	24-2P	32-8P
*14S-5P	20-15P	24-7P	*32-9
*14S-6P	20-16P	*24-10P	32-17P
*14S-7P	20-17P	24-11P	32A10
14S-9P	20-18P	24-19P	36-5P
*16S-1P	20-19P	24-20P	36-7P
*16S-4P	20-22P	24-22P	36-9P
*16S-8p	20-24P	24-27P	*36-10P
16-9P	*20-27P	*24-28P	
16-10P	*20-29P	24A24	
16-11P	20-33P	28-9P	

*Tooled with solid bead.

GS06 CONTACT ARRANGEMENTS — PINS

14S-2P	20-20P
16S-1P	20-33P
18-1P	22-19P
18-11P	24-28P
20-7P	28-21P
20-15P	32-7P

Contact Arrangement	No. of Contacts	Wire Size
SHELL SIZE 8S		
8S-1	1	#16
SHELL SIZE 10S/10SL		
10S-2	1	#16
10SL-2	3	#16
10SL-4	2	#16
10SLA4	5	#20
SHELL SIZE 12/12S		
12S-3	2	#16
12S-4	1	#16
Δ 12SA10	4	#16
SHELL SIZE 14/14S		
14S-1	3	#16
14S-2	4	#16
14S-5	5	#16
14S-6	6	#16
14S-7	3	#16
14S-9	2	#16
SHELL SIZE 16/16S		
16S-1	7	#16
16S-4	2	#16
16S-8	5	#16
16-9	2	#12
	2	#16
16-10	3	#12
16-11	2	#12
SHELL SIZE 18		
18-1	10	#16
18-4	4	#16

Contact Arrangement	No. of Contacts	Wire Size
18-8	1	#12
	7	#16
18-9	2	#12
	5	#16
18-10	4	#12
18-11	5	#12
18-12	6	#16
SHELL SIZE 20		
20-4	4	#12
20-7	8	#16
20-8	2	#8
	4	#16
20-14	2	#8
	3	#12
20-15	7	#12
20-16	2	#12
	7	#16
20-17	5	#12
	1	#16
20-18	3	#12
	6	#16
20-19	3	#8
20-22	3	#8
	3	#16
20-24	2	#8
	2	#16
20-27	14	#16
20-29	17	#16
20-33	11	#16

Contact Arrangement	No. of Contacts	Wire Size
SHELL SIZE 22		
22-2	3	#8
22-5	2	#12
	4	#16
22-9	3	#12
22-14	19	#16
22-18	8	#16
22-19	14	#16
22-20	9	#16
22-22	4	#8
22-23	8	#12
SHELL SIZE 24		
24-2	7	#12
24-4	1	#0
	3	#16
24-7	2	#12
	14	#16
24-10	7	#8
24-11	3	#8
	6	#12
24-19	12	#16
24-20	2	#12
	9	#16
24-27	7	#16
24-28	24	#16
Δ 24A-24	12	#12
SHELL SIZE 28		
28-9	6	#12
	6	#16
28-11	4	#12
	18	#16

Contact Arrangement	No. of Contacts	Wire Size
28-12	26	#16
28-15	35	#16
28-17	15	#16
28-20	10	#12
	4	#16
28-21	37	#16
Δ 28A-16	4	#4
	5	#16
SHELL SIZE 32		
32-6	2	#4
	3	#8
	2	#12
	16	#16
32-7	7	#12
	28	#16
32-8	6	#12
	24	#16
32-15	2	#0
	6	#12
32-17	4	#4
Δ 32A-10	54	#16
SHELL SIZE 36		
36-5	4	#0
36-7	7	#12
	40	#16
36-9	1	#4
	2	#8
	14	#12
	14	#16
36-10	48	#16

Δ Cannon proprietary arrangements

Alternate Insert Positions

Each insert arrangement is shown in its normal position in the shell.

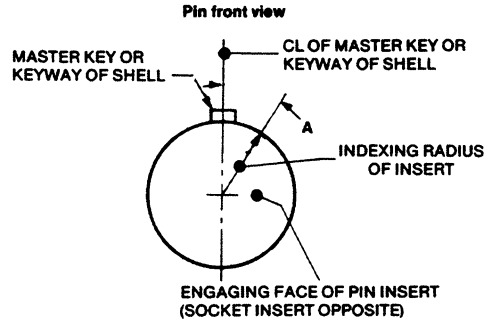
In normal position, the indexing radius coincides with CL of the master key or keyway of shell.

In alternate positions the pin insert is rotated clockwise so that angle "A" between the indexing radius and the CL of the master key or keyway of shell is as required.

In alternate positions the socket insert is rotated counter-clockwise so that angle "A" between the indexing radius and the CL of the master key or keyway of shell is as required.

MS Alternate Positions

No. of Contacts	Contact Arrangement	Degrees			
		W	X	Y	Z
2	12S-3	70	145	215	290
	14S-9	70	145	215	290
	16S-4	35	110	250	325
	16-11	35	110	250	325
3	14S-7	90	180	270	—
	16-10	90	180	270	—
	20-19	90	180	270	—
	22-2	70	145	215	290
	22-9	70	145	215	290
4	14S-2	—	120	240	—
	16-9	35	110	250	325
	18-4	35	110	250	325
	18-10	—	120	240	—
	20-4	45	110	250	—
	20-24	35	110	250	325
	22-22	—	110	250	—
	24-4	80	110	250	280
5	14S-5	—	110	—	—
	16S-8	—	170	265	—
	18-11	—	170	265	—
	20-14	80	110	250	280
6	18-12	80	—	—	280
	20-8	80	110	250	280
	20-17	90	180	270	—
	20-22	80	110	250	280
	22-5	35	110	250	325
7	16S-1	80	—	—	280
	18-9	80	110	250	280
	20-15	80	—	—	280
	24-2	80	—	—	280
	24-10	80	—	—	280
	24-27	80	—	—	280



No. of Contacts	Contact Arrangement	Degrees			
		W	X	Y	Z
8	18-8	70	—	—	290
	20-7	80	110	250	280
	22-18	80	110	250	280
	22-23	35	—	250	—
9	32-15	35	110	250	280
	20-16	80	110	250	280
	20-18	35	110	250	325
	22-20	35	110	250	325
10	24-11	35	110	250	325
	18-1	70	145	215	290
11	24-20	80	110	250	280
12	28-9	80	110	250	280
14	20-27	35	110	250	325
	22-19	80	110	250	280
	28-20	80	110	250	280
15	28-17	80	110	250	280

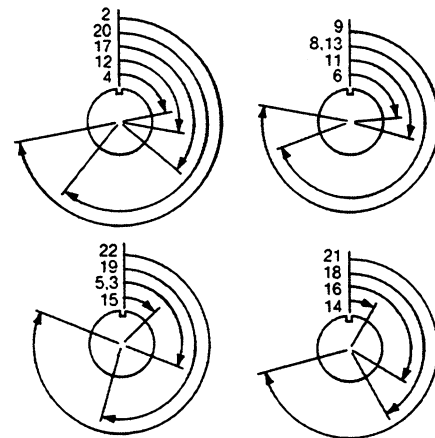
No. of Contacts	Contact Arrangement	Degrees			
		W	X	Y	Z
16	24-7	80	110	250	280
17	20-29	80	—	—	280
19	22-14	80	—	—	280
22	28-11	80	110	250	280
23	32-6	80	110	250	280
24	24-28	80	110	250	280
26	28-12	90	180	270	—
30	32-8	80	125	235	280
31	36-9	80	125	235	280
35	28-15	80	110	250	280
	32-7	80	125	235	280
37	28-21	80	110	250	280
47	36-7	80	110	250	280
48	36-10	80	125	235	280

ITT Cannon Alternate Positions (Not MS approved)

Shell Size	Contact Arrangement	Available Position					
10SL		2	3	5	8	12	13
12S		3	5	8	13		
24	A24	2	4	9	12		
28	A16	2	3	5	8	9	13
32	A10	2	3	4	5	8	9 12 13
40	A27	4	14	17	20	22	

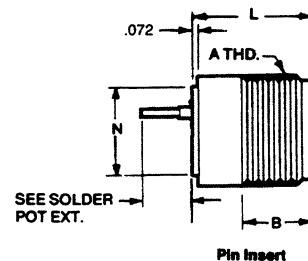
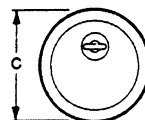
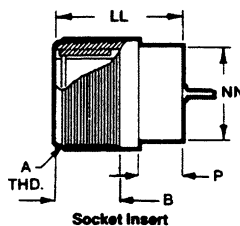
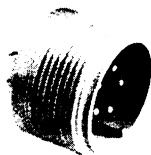
Note: Front view of pin insulator rotated as shown.

Position	Angle (deg.)	Position	Angle (deg.)	Position	Angle (deg.)
Normal	0	11	105	19	195
2	260	12	100	20	220
3	110	13	use pos. 8	21	255
4	80	14	30	22	290
5	use pos. 3	15	45	23	165
6	85	16	120	24	330
8	250	17	130	25	235
9	280	18	150	26	125



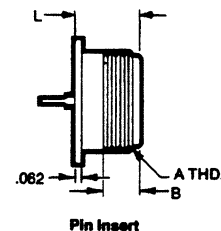
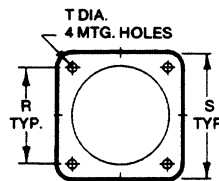
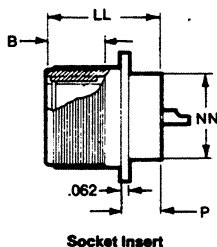
Flangeless Receptacle

GS02-00



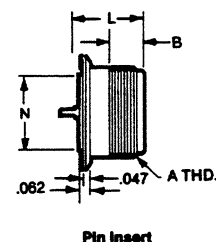
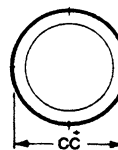
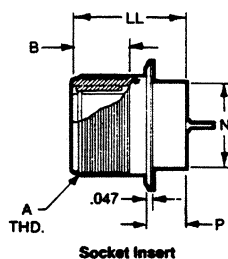
Square Flange Receptacle

GS02-11



Circular Flange Receptacle

GS02-25



Part Number by Shell Size Pin Insert*	A Thread	B Min.	C ± .010 (0.25)	CC ± .010 (0.25)	L ± .015 (0.38)	LL ± .010 (0.25)	N + .000 (0.00) - .020 (0.51)	NN + .000 (0.00) - .020 (0.51)	P ± .015 (0.38)	R ± .015 (0.38)	S Max.	T ± .005 (0.13)
•GS02-8S-***P-Δ	1/2-28UNEF-2A	.438 (11.13)	.500 (12.70)	.750 (19.05)	.715 (18.16)	—	.438 (11.13)	—	—	.594 (15.09)	.908 (23.06)	.120 (3.05)
•GS02-10S-***P-Δ	5/8-24UNEF-2A	.438 (11.13)	.625 (15.88)	.875 (19.05)	.715 (18.16)	—	.500 (12.70)	—	—	.718 (18.24)	1.032 (26.21)	.120 (3.05)
•GS02-10SL-***P-Δ	5/8-24UNEF-2A	.438 (11.13)	.625 (15.88)	.875 (22.22)	.715 (18.16)	—	.500 (12.70)	—	—	.718 (18.24)	1.032 (26.21)	.120 (3.05)
GS02-12S-***P-Δ	3/4-20UNEF-2A	.438 (11.13)	.750 (19.05)	1.000 (25.40)	.715 (18.16)	1.094 (27.79)	.656 (16.66)	.656 (16.66)	.438 (11.13)	.812 (20.62)	1.126 (28.60)	.120 (3.05)
GS02-14S-***P-Δ	7/8-20UNEF-2A	.438 (11.13)	.875 (22.22)	1.125 (28.58)	.715 (18.16)	1.094 (27.79)	.719 (18.26)	.719 (18.26)	.438 (11.13)	.906 (23.01)	1.220 (30.99)	.120 (3.05)
GS02-16S-***P-Δ	1 -20UNEF-2A	.438 (11.13)	1.000 (25.40)	1.250 (31.75)	.715 (18.16)	1.094 (27.79)	.844 (21.44)	.844 (21.44)	.438 (11.13)	.968 (24.59)	1.313 (33.35)	.120 (3.05)
GS02-12-***P-Δ	3/4-20UNEF-2A	.625 (15.88)	.750 (19.05)	1.000 (25.40)	.900 (22.86)	1.281 (32.54)	.656 (16.66)	.656 (16.66)	.438 (11.13)	.812 (20.62)	1.126 (28.60)	.120 (3.05)
GS02-14-***P-Δ	7/8-20UNEF-2A	.625 (15.88)	.875 (22.22)	1.125 (28.58)	.900 (22.86)	1.282 (32.54)	.719 (18.26)	.719 (18.26)	.438 (11.13)	.906 (23.01)	1.220 (30.99)	.120 (3.05)
GS02-16-***P-Δ	1 -20UNEF-2A	.625 (15.88)	1.000 (25.40)	1.250 (31.75)	.900 (22.86)	1.282 (32.54)	.844 (21.44)	.844 (21.44)	.438 (11.13)	.968 (24.59)	1.313 (33.35)	.120 (3.05)
GS02-18-***P-Δ	1-1/8-18UNEF-2A	.625 (15.88)	1.125 (28.58)	1.375 (34.92)	.900 (22.86)	1.282 (32.54)	.969 (24.62)	.969 (24.62)	.438 (11.13)	1.062 (26.87)	1.407 (35.74)	.120 (3.05)
GS02-20-***P-Δ	1-1/4-18UNEF-2A	.625 (15.88)	1.250 (31.75)	1.500 (38.10)	.900 (22.86)	1.282 (32.54)	1.156 (29.36)	1.156 (29.36)	.438 (11.13)	1.156 (29.36)	1.532 (38.91)	.120 (3.05)
GS02-22-***P-Δ	1-3/8-18UNEF-2A	.625 (15.88)	1.375 (34.92)	1.625 (41.28)	.900 (22.86)	1.282 (32.54)	1.250 (31.75)	1.250 (31.75)	.438 (11.13)	1.250 (31.75)	1.657 (42.09)	.120 (3.05)
GS02-24-***P-Δ	1-1/2-18UNEF-2A	.625 (15.88)	1.500 (38.10)	1.750 (44.45)	.900 (22.86)	1.406 (35.71)	1.375 (34.92)	1.375 (34.92)	.563 (14.30)	1.375 (34.92)	1.782 (45.26)	.147 (3.73)
GS02-28-***P-Δ	1-3/4-18UNS-2A	.625 (15.88)	1.750 (44.45)	2.000 (50.80)	.900 (22.86)	1.406 (35.71)	1.625 (41.28)	1.625 (41.28)	.563 (14.30)	1.562 (39.67)	2.032 (51.61)	.147 (3.73)
GS02-32-***P-Δ	2 -18UNS-2A	.625 (15.88)	2.000 (50.80)	2.250 (57.15)	.900 (22.86)	1.406 (35.71)	1.875 (47.62)	1.875 (47.62)	.563 (14.30)	1.750 (44.45)	2.282 (57.96)	.173 (4.39)
GS02-36-***P-Δ	2-1/4-18UNS-2A	.625 (15.88)	2.250 (57.15)	2.500 (63.50)	.900 (22.86)	1.406 (35.71)	2.125 (53.98)	2.125 (53.98)	.563 (14.30)	1.937 (49.20)	2.531 (64.29)	.173 (4.39)

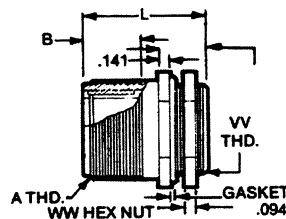
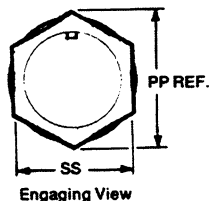
*For socket inserts, substitute S for P following the contact arrangement number.
 **Add contact arrangement number. See pages 24-25 for contact arrangements.

*Available with pin inserts only.
 ΔAdd flange and contact terminal type. See page 31.

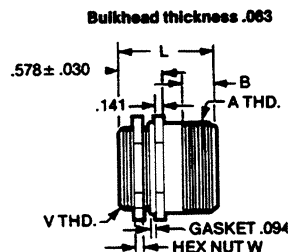
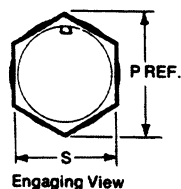
Hex Flange Receptacle

Hex Locknut

GS02-30



Socket Insert



Pin Insert

Part Number by Shell Size Pin Insert*	A Thread	B Min.	L ± .010 (0.25)	P	PP	S ± .015 (0.38)	SS ± .010 (0.25)	V	VV	W ± .010 (0.25)	WW
• GS02-8S-**P-30 Δ	1/2-28UNEF-2A	.450 (11.43)	1.219 (30.96)	.594 (15.09)	—	.500 (12.70)	—	3/8-32UNEF-2A	—	.125 (3.18)	—
• GS02-10S-**P-30 Δ	5/8-24UNEF-2A	.450 (11.43)	1.219 (30.96)	.719 (18.26)	—	.625 (15.88)	—	1/2-28UNEF-2A	—	.125 (3.18)	—
• GS02-10SL-**P-30 Δ	5/8-24UNEF-2A	.450 (11.43)	1.219 (30.96)	.719 (18.36)	—	.625 (15.88)	—	1/2-28UNEF-2A	—	.125 (3.18)	—
GS02-12S-**P-30 Δ	3/4-20UNEF-2A	.450 (11.43)	1.219 (30.96)	.875 (22.22)	1.000 (25.40)	.750 (19.05)	.875 (22.22)	5/8-24UNEF-2A	3/4-20UNEF-2A	.125 (3.18)	.125 (3.18)
GS02-14S-**P-30 Δ	7/8-20UNEF-2A	.450 (11.43)	1.219 (30.96)	1.000 (25.40)	1.156 (29.36)	.875 (22.22)	1.000 (25.40)	3/4-20UNEF-2A	7/8-20UNEF-2A	.125 (3.18)	.125 (3.18)
GS02-16S-**P-30 Δ 1	-20UNEF-2A	.450 (11.43)	1.219 (30.96)	1.156 (29.36)	1.313 (33.35)	1.000 (25.40)	1.125 (28.58)	7/8-20UNEF-2A	1 -20UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-12-**P-30 Δ	3/4-20UNEF-2A	.625 (15.88)	1.406 (35.71)	.875 (22.22)	1.000 (25.40)	.750 (19.05)	.875 (22.22)	5/8-24UNEF-2A	3/4-20UNEF-2A	.125 (3.18)	.125 (3.18)
GS02-14-**P-30 Δ	7/8-20UNEF-2A	.625 (15.88)	1.406 (35.71)	1.000 (25.40)	1.156 (29.36)	.875 (22.22)	1.000 (25.40)	3/4-20UNEF-2A	7/8-20UNEF-2A	.125 (3.18)	.125 (3.18)
GS02-16-**P-30 Δ 1	-20UNEF-2A	.625 (15.88)	1.406 (35.71)	1.156 (29.36)	1.313 (33.35)	1.000 (25.40)	1.125 (28.58)	7/8-20UNEF-2A	1 -20UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-18-**P-30 Δ	1-1/8-18UNEF-2A	.625 (15.88)	1.406 (35.71)	1.313 (33.35)	1.438 (36.53)	1.125 (28.58)	1.250 (31.75)	1 -20UNEF-2A	1-1/8-18UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-20-**P-30 Δ	1-1/4-18UNEF-2A	.625 (15.88)	1.406 (35.71)	1.438 (36.53)	1.594 (40.49)	1.250 (31.75)	1.375 (34.92)	1-1/4-18UNEF-2A	1-1/4-18UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-22-**P-30 Δ	1-3/8-18UNEF-2A	.625 (15.88)	1.406 (35.71)	1.594 (40.49)	1.750 (44.45)	1.375 (34.92)	1.500 (38.10)	1-1/4-18UNEF-2A	1-3/8-18UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-24-**P-30 Δ	1-1/2-18UNEF-2A	.625 (15.88)	1.406 (35.71)	1.750 (44.45)	1.875 (47.62)	1.500 (38.10)	1.625 (41.28)	1-3/8-18UNEF-2A	1-1/2-18UNEF-2A	.141 (3.58)	.141 (3.58)
GS02-28-**P-30 Δ	1-3/4-18UNS-2A	.625 (15.88)	1.406 (35.71)	2.031 (51.59)	2.188 (55.58)	1.750 (44.45)	1.875 (47.62)	1-5/8-18UNEF-2A	1-3/4-18UNS -2A	.141 (3.58)	.141 (3.58)
GS02-32-**P-30 Δ 2	-18UNS-2A	.625 (15.88)	1.406 (35.71)	2.313 (58.75)	2.469 (62.71)	2.125 (53.98)	2.250 (57.15)	1-7/8-16UN-2A	2 -18UNS -2A	.141 (3.58)	.141 (3.58)
GS02-36-**P-30 Δ	2-1/4-16UN-2A	.625 (15.88)	1.406 (35.71)	2.738 (69.55)	2.862 (72.69)	2.500 (63.50)	2.500 (63.50)	2-1/8-16UN-2A	2-1/4-16UN-2A	.156 (3.96)	.156 (3.96)
GS02-40-**P-30 Δ	2-1/2-16UN-2A	.625 (15.88)	1.406 (35.71)	3.026 (76.86)	3.172 (80.57)	2.625 (66.68)	2.750 (69.85)	2-3/8-16UN-2A	2-1/2-16UN-2A	.156 (3.96)	.156 (3.96)
GS02-44-**P-30 Δ	2-3/4-16UN-2A	.625 (15.88)	1.406 (35.71)	3.316 (84.23)	3.460 (89.88)	2.875 (73.02)	3.000 (76.20)	2-5/8-16UN-2A	2-3/4-16UN-2A	.156 (3.96)	.156 (3.96)
GS02-48-**P-30 Δ 3	-16UN-2A	.625 (15.88)	1.406 (35.71)	3.604 (91.54)	4.038 (102.57)	3.125 (79.38)	3.500 (88.90)	2-7/8-16UN-2A	3 -16UN-2A	.156 (3.96)	.156 (3.96)

*For socket inserts, substitute S for P following the contact arrangement number.

**Add contact arrangement number. See pages 24-25 for contact arrangements.

Δ Add contact terminal type. See ordering data, page 23.

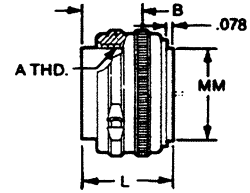
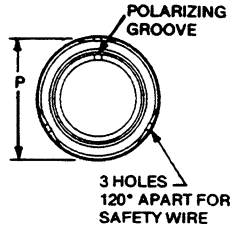
• Pin type only.

NOTE: Available only with individual beads (steel web construction).

Flangeless Receptacle

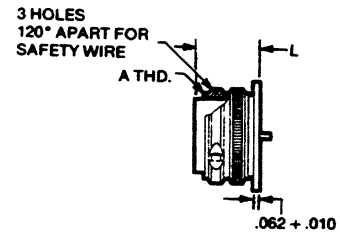
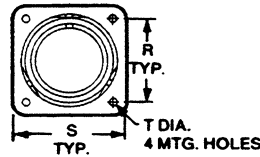
GS06-00

B = LENGTH OF ENGAGEMENT



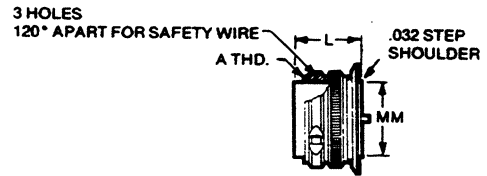
Square Flange Receptacle

GS06-11



Circular Flange Receptacle

GS06-25



GS06 glass sealed receptacles are supplied with pin contact arrangements; however, some socket assemblies are available upon request. Tabulation dimensions are for pins only.

Part Number by Shell Size Pin Inserts*	A Thread	B	L ± .010 (0.25)	MM + .000 (0.00) - .020 (0.51)	P Max.	PP + .000 (0.00) - .020 (0.51)	R ± .005 (0.13)	S Max.	T ± .005 (0.13)
GS06-8S**P-Δ	1/2-28UNEF-2B	.531 (13.49)	.875 (22.22)	.375 (9.52)	.761 (19.33)	.760 (19.30)	.594 (15.09)	.906 (23.01)	.120 (3.05)
GS06-12S**P-Δ	3/4-20UNEF-2B	.531 (13.49)	.875 (22.22)	.578 (14.68)	1.011 (25.68)	1.010 (25.65)	.812 (20.62)	1.125 (28.58)	.120 (3.05)
GS06-14S**P-Δ	7/8-20UNEF-2B	.531 (13.49)	.875 (22.22)	.672 (17.07)	1.156 (29.36)	1.135 (28.83)	.906 (23.01)	1.219 (30.96)	.120 (3.05)
GS06-16S**P-Δ	1 -20UNEF-2B	.531 (13.49)	.875 (22.22)	.844 (21.44)	1.247 (31.67)	1.260 (32.00)	.969 (24.62)	1.312 (33.32)	.120 (3.05)
GS06-16**P-Δ	1 -20UNEF-2B	.719 (18.26)	1.062 (26.97)	.844 (21.44)	1.247 (31.67)	1.260 (32.00)	.969 (24.62)	1.312 (33.32)	.120 (3.05)
GS06-18**P-Δ	1-1/8-18UNEF-2B	.719 (18.26)	1.062 (26.97)	.906 (23.01)	1.344 (34.14)	1.385 (35.18)	1.062 (26.97)	1.406 (35.71)	.120 (3.05)
GS06-20**P-Δ	1-1/4-18UNEF-2B	.719 (18.26)	1.062 (26.97)	1.062 (26.97)	1.469 (37.31)	1.510 (38.35)	1.156 (29.36)	1.531 (38.89)	.120 (3.05)
GS06-22**P-Δ	1-3/8-18UNEF-2B	.719 (18.26)	1.062 (26.97)	1.156 (29.36)	1.594 (40.49)	1.635 (41.53)	1.250 (31.75)	1.656 (42.06)	.120 (3.05)
GS06-24**P-Δ	1-1/2-18UNEF-2B	.719 (18.26)	1.062 (26.97)	1.375 (34.92)	1.719 (43.66)	1.760 (44.70)	1.375 (34.92)	1.781 (45.24)	.147 (3.73)
GS06-28**P-Δ	1-3/4-18UNS -2B	.719 (18.26)	1.062 (26.97)	1.578 (40.08)	1.969 (50.01)	2.010 (51.05)	1.562 (39.67)	2.031 (51.59)	.147 (3.73)

*For Socket inserts, substitute S for P following the contact arrangement number.

**Add contact arrangement number. See page 24-25 for contact arrangements.

ΔAdd flange and contact terminal type. See Ordering Data, page 23.

NOTE: Available only with individual beads (steel web construction). Table is for pins only.

Thermocouple Contacts

Size 12 and 16 contacts, machined from matching thermocouple lead wire alloys, can be supplied in ITT Cannon connectors. These thermocouple contacts maintain continuity from thermal-sensor leads thru a bulkhead or other closures in temperature measuring applications.

These contacts for matching lead wires are detailed by the standards of the Instrument Society of America (I.S.A.):

I.S.A. Standards	Material
J and Y	Iron and constantan
K	Chromel and alumeI

Since the thermocouple connector application determines the soldering methods and materials to be used, thermocouple contacts, identified by permanent markings, are normally supplied with untinned solder pots.

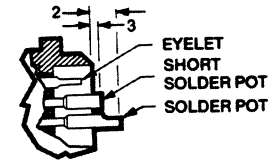
Maximum Contact Termination Extensions

GS02 FLANGE TYPES 00, 11 and 25
(pin and socket)

GS02 FLANGE TYPE 30
(socket only) sizes 24 thru 48

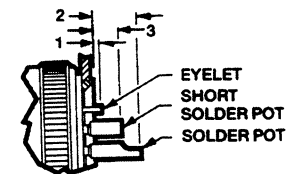
BFH
(socket only)

Contact Size	Contact Terminal No.		
	1	2	3
16	7/32	3/8	1/4
12	9/32	33/64	21/64
8	15/32	23/32	15/32
4	††	63/64	††
0	††	63/64	††



GS02 FLANGE TYPE 30
(socket only) sizes 12s thru 22

Contact Size	Contact Terminal No.		
	1	2	3
16	3/32	1/4	1/8
12	5/32	25/64	13/64
8	††	19/32	11/32
4	††	††	††
0	††	††	††



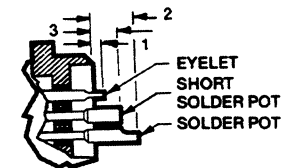
GS

GS02 FLANGE TYPE 30
(pin only)

BFH
(pin only)

Contact Size	Contact Terminal No.		
	1	2	3
16	none	none*	none
12	none	15/64	3/16
8	††	7/16	3/16
4	††	5/8	††
0	††	††	††

*1/16 on BFH



GS06 FLANGE TYPES 00, 11 and 25
(pin only)

Contact Size	Contact Terminal No.		
	1	2	3
16	1/16	7/32	3/32
12	1/8	3/8	11/64
8	††	9/16	5/16
4	††	61/64	††
0	††	††	††

†† Not manufactured, contact factory for special requirements.

