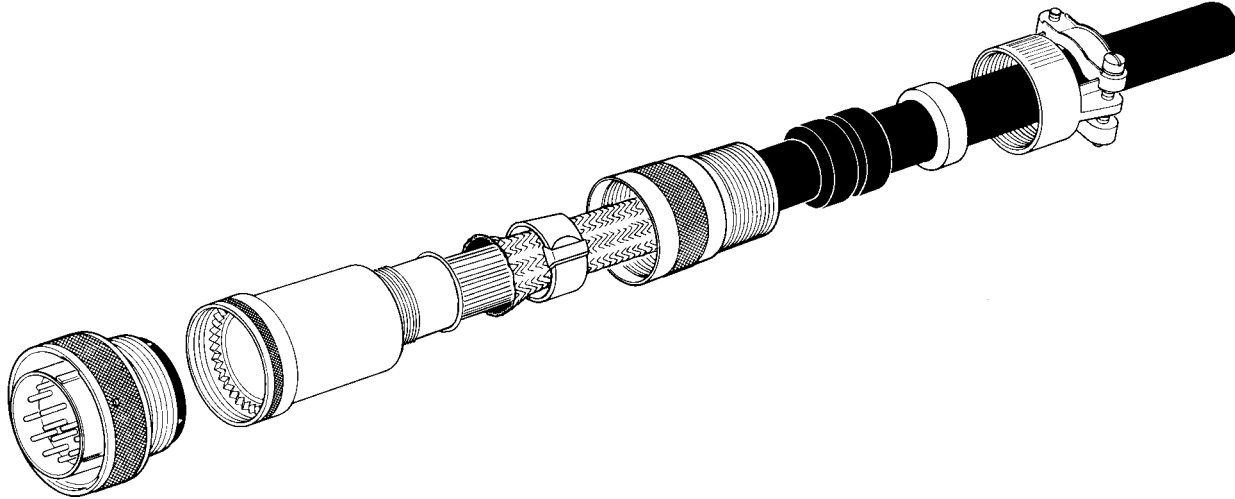


This series is the same as the Series 460, except it provides environmental sealing on a jacketed cable. This utilizes our low profile O-Ring compression seal.



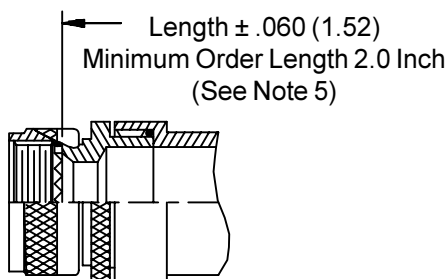
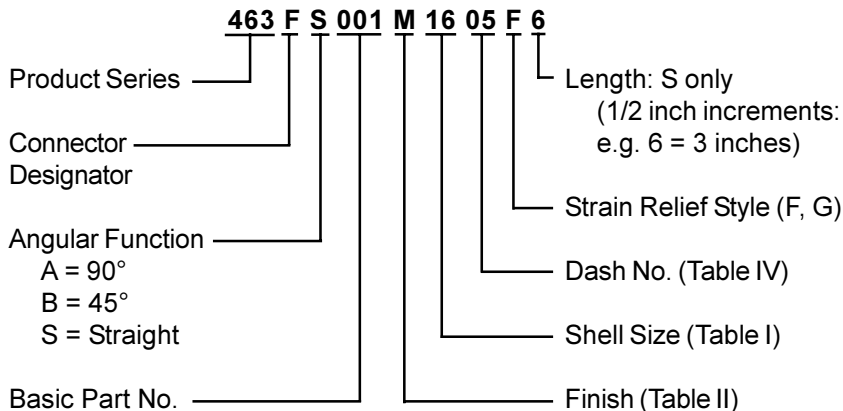
## ASSEMBLY INSTRUCTIONS 463-1

The following suggested procedure serves as a guide for the proper assembly and installation of Glenair EMI/RFI Environmental Backshells (Type 463 G-Spring Termination). It is recommended that trial samples of appropriate cables or harnesses be used to determine proper trim dimensions of the outer shield and individual conductors. This procedure is for the three ring style.

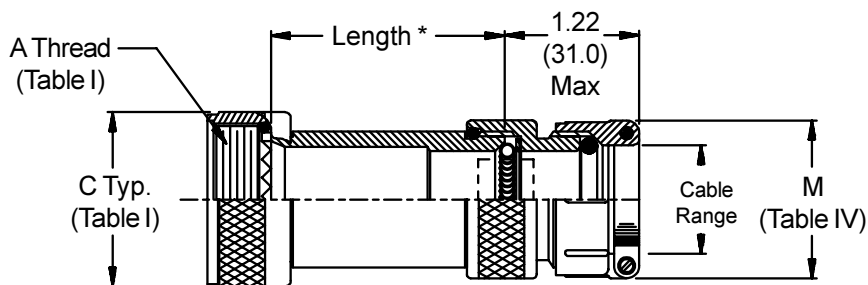
- a. Temporarily assemble backshell (1) to connector.
- b. Place backshell, support ring (if used), G-spring, and strain relief on the cable in sequence shown. Keep these components at a convenient distance from the end of the cable, so they will not interfere with subsequent assembly steps.
- c. Insert cable or harness into backshell and bottom against connector. Hold cable in position and mark outer shield at rear end of backshell.
- d. Remove backshell from connector and place on cable with items in step (b) above.
- e. Trim outer shield at mark made in step (c) above.
- f. Prepare and terminate contacts to individual conductors in accordance with established practices. (Crimp or solder in place.)
- g. Slide backshell forward to connector, and tighten securely.
- h. Move support ring (optional component used over loose wire bundles) forward, ahead of the trimmed outer shield, then slide support ring backward under outer shield, pull outer shield forward covering support ring.
- i. Bring G-spring forward, and position on outer shield directly over the support ring at the rear of the backshell. Then push G-spring and support ring into beveled area of backshell. Thread rear backshell onto front thus compressing G-spring, providing the shield bonding joint.
- j. Engage o'ring and strain relief to backshell and tighten securely. Tighten relief saddles securely on cable or harness. This will then provide an environmental resisting seal on the cable jacket, along with strain relief.

Note: As with any electrical connector assembly procedure, be sure to use the proper tools. For convenient, reliable assembly of the connector and backshell, it is suggested that Glenair's connector holding tools, strap wrenches and connector pliers be used.

## CONNECTOR DESIGNATORS A-F-H-L-S ROTATABLE COUPLING

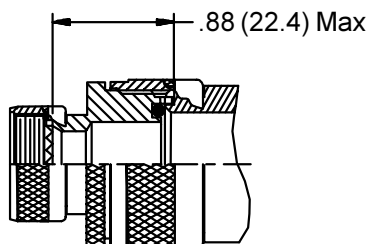


**STYLE 2  
(STRAIGHT  
See Note 1)**

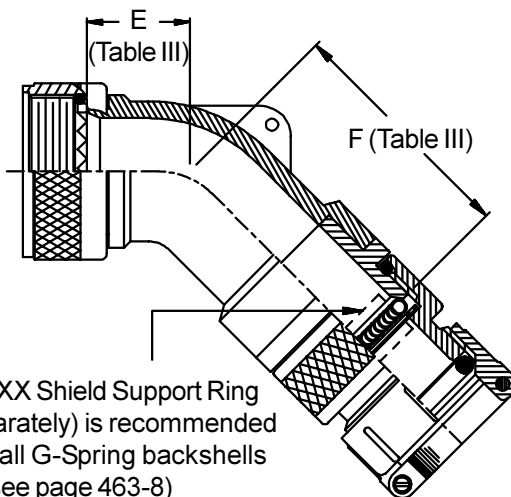


\* Length ± .060 (1.52)  
Minimum Order Length 1.5 Inch  
(See Note 5)

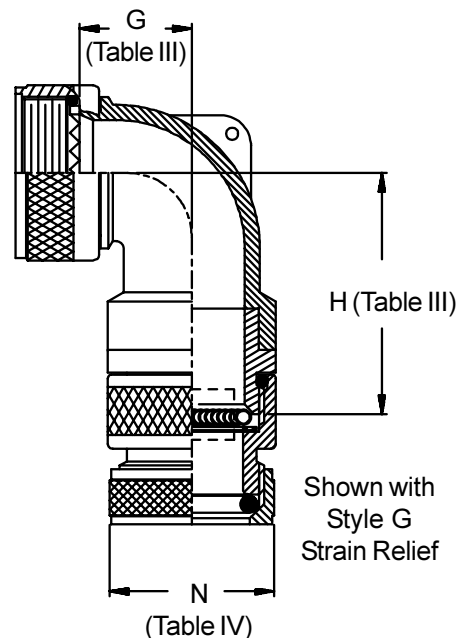
Shown with Style F  
Strain Relief



**STYLE 2  
(45° & 90°  
See Note 1)**



Shown with Style F  
Strain Relief



Shown with  
Style G  
Strain Relief

# Series 463 RFI Environmental G-Spring Backshells



463

See inside back cover fold-out or pages 13 and 14 for Tables I and II.

Shell Size		E		F		G		H	
Conn. Desig.	H	Max		Max		Max		Max	
A-F-L-S									
08	09	.413	(10.5)	1.720	(43.7)	.500	(12.7)	1.670	(42.4)
10	11	.520	(13.2)	1.720	(43.7)	.595	(15.1)	1.790	(45.5)
12	13	.582	(14.8)	1.780	(45.2)	.610	(15.5)	1.810	(46.0)
14	15	.645	(16.4)	1.870	(47.5)	.700	(17.8)	1.880	(47.8)
16	17	.738	(18.7)	1.980	(50.3)	.885	(22.5)	1.970	(50.0)
18	19	.926	(23.5)	2.170	(55.1)	.975	(24.8)	2.140	(54.4)
20	21	.926	(23.5)	2.170	(55.1)	.975	(24.8)	2.140	(54.4)
22	23	1.020	(25.9)	2.320	(58.9)	1.125	(28.6)	2.250	(57.2)
24	25	1.020	(25.9)	2.320	(58.9)	1.125	(28.6)	2.250	(57.2)
28		1.145	(29.1)	2.370	(60.2)	1.225	(31.1)	2.420	(61.5)
32		1.207	(30.7)	2.470	(62.7)	1.575	(40.0)	2.670	(67.8)
36		1.238	(31.4)	2.560	(65.0)	1.775	(45.1)	2.670	(67.8)

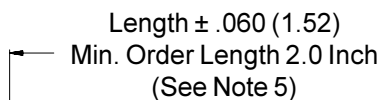
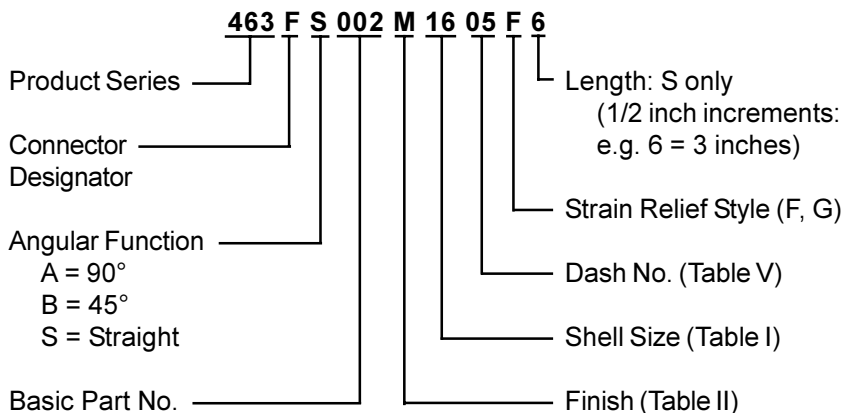
Dash No.	M Max	N Max	Cable Range	
			Min	Max
01	.843 (21.4)	.625 (15.9)	.125 (3.2)	.250 (6.4)
02	.968 (24.6)	.750 (19.1)	.156 (4.0)	.375 (9.5)
03	1.046 (26.6)	.875 (22.2)	.250 (6.4)	.438 (11.1)
04	1.156 (29.4)	1.000 (25.4)	.280 (7.1)	.500 (12.7)
05	1.218 (30.9)	1.125 (28.6)	.375 (9.5)	.625 (15.9)
06	1.343 (34.1)	1.250 (31.8)	.500 (12.7)	.750 (19.1)
07	1.468 (37.3)	1.375 (34.9)	.625 (15.9)	.875 (22.2)
08	1.593 (40.5)	1.500 (38.1)	.750 (19.1)	1.000 (25.4)
09	1.718 (43.6)	1.625 (41.3)	.875 (22.2)	1.125 (28.6)
10	1.843 (46.8)	1.750 (44.5)	1.000 (25.4)	1.250 (31.8)
11*	2.187 (55.5)	1.875 (47.6)	1.125 (28.6)	1.375 (34.9)
12*	2.312 (58.7)	2.000 (50.8)	1.250 (31.8)	1.500 (38.1)
13*	2.437 (61.9)	2.125 (54.0)	1.375 (34.9)	1.625 (41.3)
14*	2.546 (64.7)	2.250 (57.2)	1.500 (38.1)	1.750 (44.5)

\* Consult factory for availability

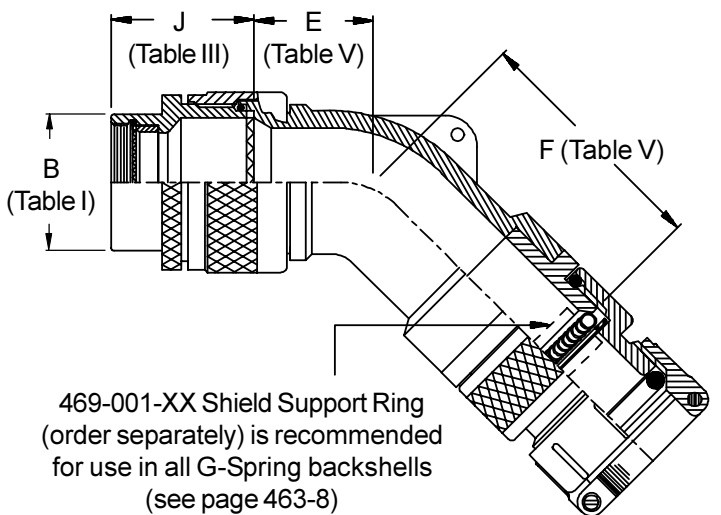
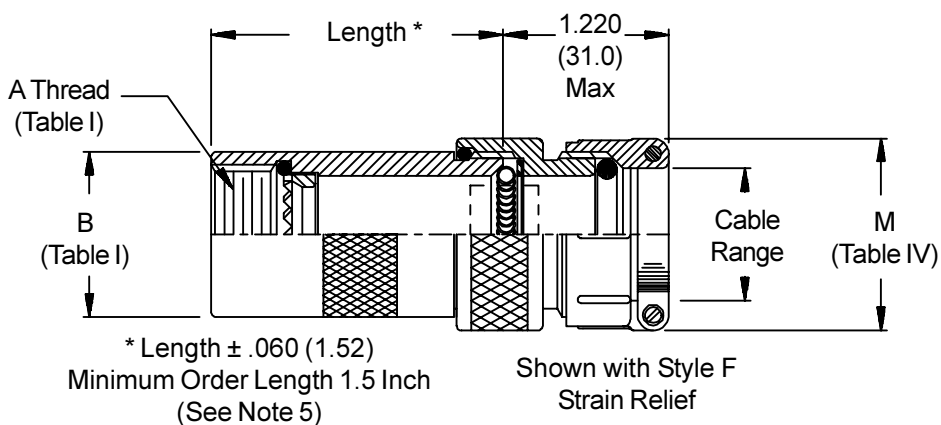
1. Shield Support Ring (469-001-XX) is recommended for use in all G-Spring backshells (see page 463-8).
2. When maximum cable entry (page 21) is exceeded, Style 2 will be supplied. Dimensions E, F, G and H will not apply. Please consult factory.
3. Metric dimensions (mm) are indicated in parentheses.
4. Cable range is defined as the accommodations range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
5. Consult factory for shorter lengths on straight backshells.
6. O-Ring not supplied with Connector Designator A.

## CONNECTOR DESIGNATORS A-B\*-C-D-E-F G-H-J-K-L-S

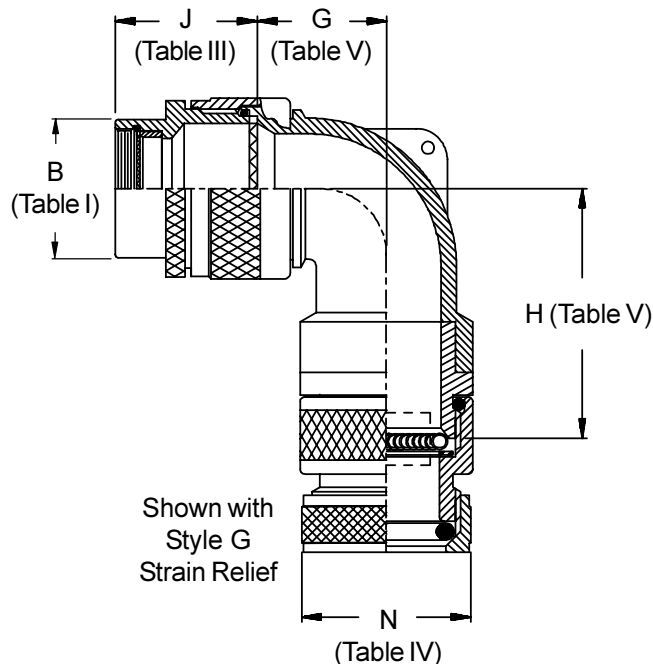
\* Conn. Desig. B See Note 6  
**DIRECT COUPLING**



**STYLE 2  
(STRAIGHT  
See Note 1)**



Shown with Style F Strain Relief



# Series 463 RFI Environmental G-Spring Backshells



463

See inside back cover fold-out or pages 13 and 14 for Tables I and II.

Shell Size	J Max - Conn. Designator		
	A-D-E-F		C
	J-H-L-S	B-G-K	
08/09	1.000 (25.4)	1.250 (31.8)	
10/11	1.000 (25.4)	1.250 (31.8)	
12/13	1.000 (25.4)	1.250 (31.8)	1.735 (44.1)
14/15	1.000 (25.4)	1.250 (31.8)	1.915 (48.6)
16/17	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
18/19	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
20/21	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
22/23	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
24/25	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
28/29	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
32/33	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
36	1.000 (25.4)	1.416 (36.0)	1.915 (48.6)
40	1.000 (25.4)	1.687 (42.9)	1.915 (48.6)

Dash No.	M	N	Cable Range	
	Max	Max	Min	Max
01	.843 (21.4)	.625 (15.9)	.125 (3.2)	.250 (6.4)
02	.968 (24.6)	.750 (19.1)	.156 (4.0)	.375 (9.5)
03	1.046 (26.6)	.875 (22.2)	.250 (6.4)	.438 (11.1)
04	1.156 (29.4)	1.000 (25.4)	.280 (7.1)	.500 (12.7)
05	1.218 (30.9)	1.125 (28.6)	.375 (9.5)	.625 (15.9)
06	1.343 (34.1)	1.250 (31.8)	.500 (12.7)	.750 (19.1)
07	1.468 (37.3)	1.375 (34.9)	.625 (15.9)	.875 (22.2)
08	1.593 (40.5)	1.500 (38.1)	.750 (19.1)	1.000 (25.4)
09	1.718 (43.6)	1.625 (41.3)	.875 (22.2)	1.125 (28.6)
10	1.843 (46.8)	1.750 (44.5)	1.000 (25.4)	1.250 (31.8)
11*	2.187 (55.5)	1.875 (47.6)	1.125 (28.6)	1.375 (34.9)
12*	2.312 (58.7)	2.000 (50.8)	1.250 (31.8)	1.500 (38.1)
13*	2.437 (61.9)	2.125 (54.0)	1.375 (34.9)	1.625 (41.3)
14*	2.566 (64.7)	2.250 (57.2)	1.500 (38.1)	1.750 (44.5)

\* Consult factory for availability

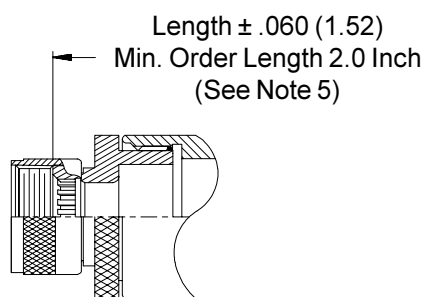
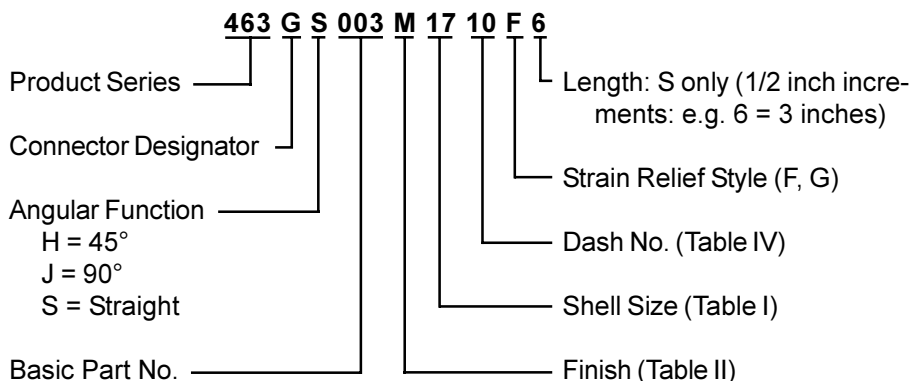
Elbow Size	E	F	G	H
	Max	Max	Max	Max
01	.630 (16.0)	1.720 (43.7)	.636 (16.2)	1.670 (42.4)
02	.630 (16.0)	1.720 (43.7)	.710 (18.0)	1.790 (45.5)
03	.692 (17.6)	1.780 (45.2)	.734 (18.6)	1.810 (46.0)
04	.755 (19.2)	1.870 (47.5)	.825 (21.0)	1.880 (47.8)
05	.848 (21.5)	1.980 (50.3)	.988 (25.1)	1.970 (50.0)
06	1.036 (26.3)	2.170 (55.1)	1.087 (27.6)	2.140 (54.4)
07	1.036 (26.3)	2.170 (55.1)	1.087 (27.6)	2.140 (54.4)
08	1.130 (28.7)	2.320 (58.9)	1.325 (33.7)	2.250 (57.2)
09	1.130 (28.7)	2.320 (58.9)	1.325 (33.7)	2.250 (57.2)
10	1.255 (31.9)	2.370 (60.2)	1.337 (34.0)	2.420 (61.5)
11	1.317 (33.5)	2.470 (62.7)	1.827 (46.4)	2.670 (67.8)
12	1.317 (33.5)	2.470 (62.7)	1.827 (46.4)	2.670 (67.8)
13	1.348 (34.2)	2.560 (65.0)	2.027 (51.5)	2.670 (67.8)
14	1.348 (34.2)	2.560 (65.0)	2.027 (51.5)	2.670 (67.8)

1. Shield Support Ring (469-001-XX) is recommended for use in all G-Spring backshells (see page 463-8).
2. When maximum cable entry (page 22) is exceeded, Style 2 will be supplied. Angular Function S only.
3. Metric dimensions (mm) are indicated in parentheses.
4. Cable range is defined as the accommodations range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
5. Consult factory for shorter lengths on straight backshells.
6. When using Connector Designator B refer to pages 18 and 19 for part number development.

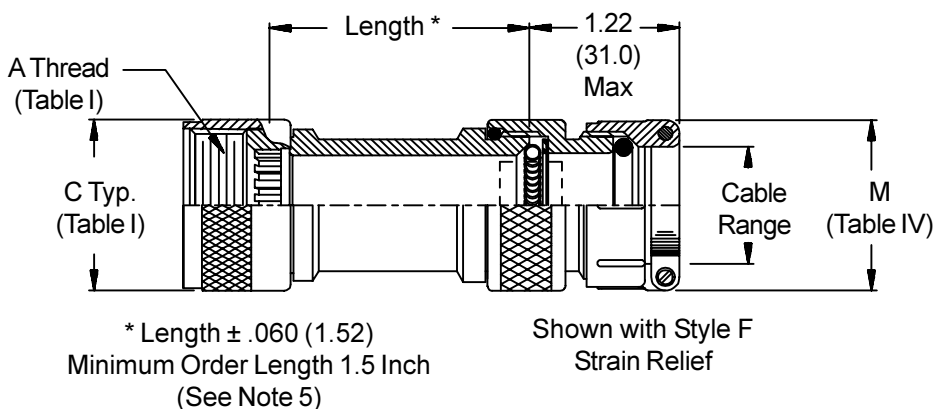
## CONNECTOR DESIGNATOR

# G

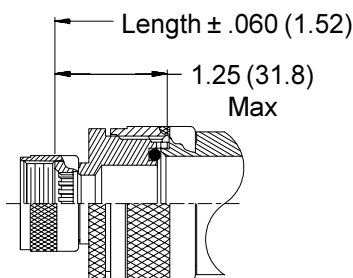
## ROTATABLE COUPLING



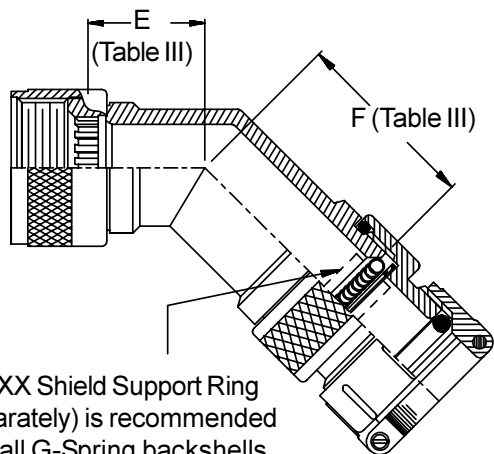
**STYLE 2  
(STRAIGHT  
See Note 1)**



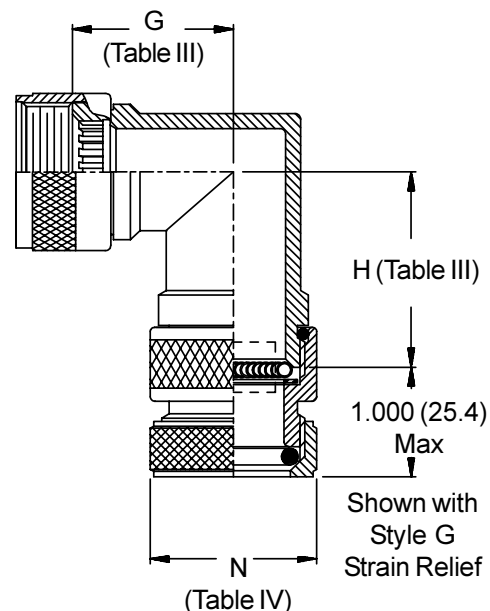
Shown with Style F  
Strain Relief



**STYLE 2  
(45° & 90°  
See Note 1)**



Shown with Style F  
Strain Relief



Shown with  
Style G  
Strain Relief  
(Table IV)

469-001-XX Shield Support Ring (order separately) is recommended for use in all G-Spring backshells (see page 463-8)

# Series 463 RFI Environmental G-Spring Backshells



463

See inside back cover  
fold-out or pages 13 and  
14 for Tables I and II.

Shell Size	E Max	F Max	G Max	H Max
11	1.240 (31.5)	1.630 (41.4)	1.380 (35.1)	1.770 (45.0)
13	1.260 (32.0)	1.650 (41.9)	1.440 (36.6)	1.830 (46.5)
15	1.290 (32.8)	1.680 (42.7)	1.500 (38.1)	1.900 (48.3)
17	1.310 (33.3)	1.700 (43.2)	1.570 (39.9)	1.960 (49.8)
19	1.340 (34.0)	1.730 (43.9)	1.630 (41.4)	2.040 (51.8)
23	1.380 (35.1)	1.770 (45.0)	1.730 (43.9)	2.120 (53.3)
25	1.410 (35.8)	1.800 (45.7)	1.800 (45.7)	2.190 (53.8)
29	1.580 (40.1)	1.970 (50.0)	2.040 (51.8)	2.430 (61.7)
33	1.620 (41.1)	2.010 (51.1)	2.130 (54.1)	2.520 (64.0)

Dash No.	M Max	N Max	Cable Range	
			Min	Max
01	.843 (21.4)	.625 (15.9)	.125 (3.2)	.250 (6.4)
02	.968 (24.6)	.750 (19.1)	.156 (4.0)	.375 (9.5)
03	1.046 (26.6)	.875 (22.2)	.250 (6.4)	.438 (11.1)
04	1.156 (29.4)	1.000 (25.4)	.280 (7.1)	.500 (12.7)
05	1.218 (30.9)	1.125 (28.6)	.375 (9.5)	.625 (15.9)
06	1.343 (34.1)	1.250 (31.8)	.500 (12.7)	.750 (19.1)
07	1.468 (37.3)	1.375 (34.9)	.625 (15.9)	.875 (22.2)
08	1.593 (40.5)	1.500 (38.1)	.750 (19.1)	1.000 (25.4)
09	1.718 (43.6)	1.625 (41.3)	.875 (22.2)	1.125 (28.6)
10	1.843 (46.8)	1.750 (44.5)	1.000 (25.4)	1.250 (31.8)
11*	2.187 (55.5)	1.875 (47.6)	1.125 (28.6)	1.375 (34.9)
12*	2.312 (58.7)	2.000 (50.8)	1.250 (31.8)	1.500 (38.1)
13*	2.437 (61.9)	2.125 (54.0)	1.375 (34.9)	1.625 (41.3)
14*	2.546 (64.7)	2.250 (57.2)	1.500 (38.1)	1.750 (44.5)

\* Consult factory for availability

1. Shield Support Ring (469-001-XX) is recommended for use in all G-Spring backshells (see page 463-8).
2. When maximum cable entry (page 21) is exceeded, Style 2 will be supplied. Dimensions E, F, G and H will not apply. Please consult factory.
3. Metric dimensions (mm) are indicated in parentheses.
4. Cable range is defined as the accommodations range for the wire bundle or cable. Dimensions shown are not intended for inspection criteria.
5. Consult factory for shorter lengths on straight backshells.