

#### PRODUCT FEATURES

- Stainless Steel Hermetic
- Optional Composite Thermoplastic Shell Materials
- 2 to 18 Pin Layouts
- Environmentally Sealed
- Large Profile Knurling for Ease of Handling
- Keyed Polarization
- Available Molding Adapter Option

## Corrosion Resistant Stainless Steel and Composite Mil-C-5015 Type Harsh Environment Connectors

***Designed for use in oil patch applications, this connector is ideal for all harsh environment settings***

Glenair's line of 5015 Type Harsh Environment Connectors are designed to provide outstanding corrosion resistance and rugged performance. These stainless steel and composite thermoplastic plugs and receptacles are ideally suited for severe environments such as geophysical exploration, mining and other settings where resistance to extreme temperatures, salt spray and caustic chemicals is a critical requirement.

Fully compliant with the Mil-C-5015 specification, the connectors offer additional design features and materials advantages which make them exceptional values for many interconnect applications. Composite versions are manufactured from a 40% glass filled Ryton engineering plastic. Ryton is a high temperature, injection molded material with good mechanical properties and excellent chemical resistance at elevated temperatures, up to 500° F. The material provides outstanding resistance to a broad spectrum of aggressive chemicals and has very stable dielectric and insulating properties.

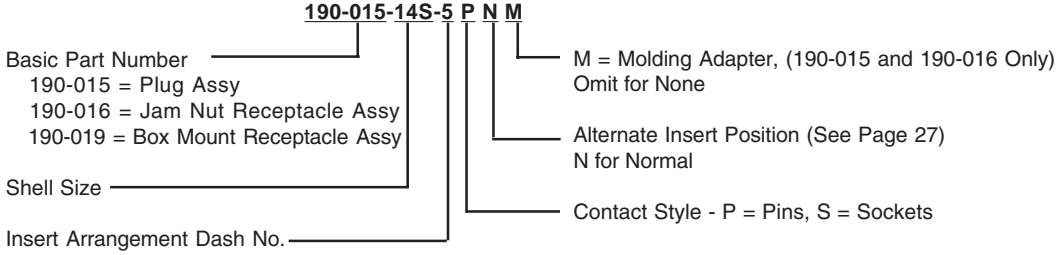
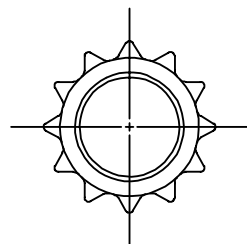
The connectors are designed for rugged field use, and feature large profile knurlings for ease of handling, and anti-decoupling springs for maintenance-free performance. A complete range of pin sizes and insert arrangements are available.



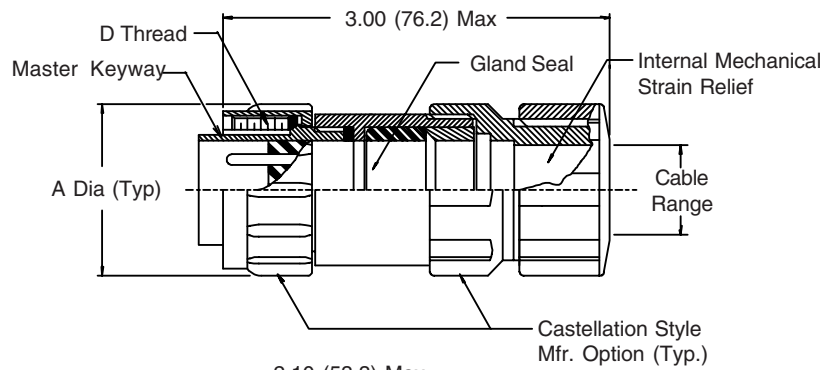
# 190-015 Composite Plug, 190-016 Composite Jam Nut Receptacle & 190-019 Composite Box Mount Receptacle



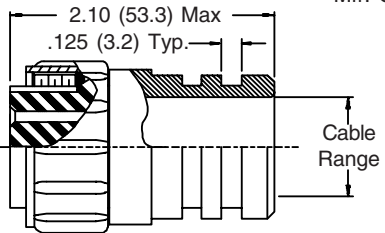
40% Glass Filled  
Ryton Engineering  
Composite  
Thermoplastic



## 190-015 Plug Assembly

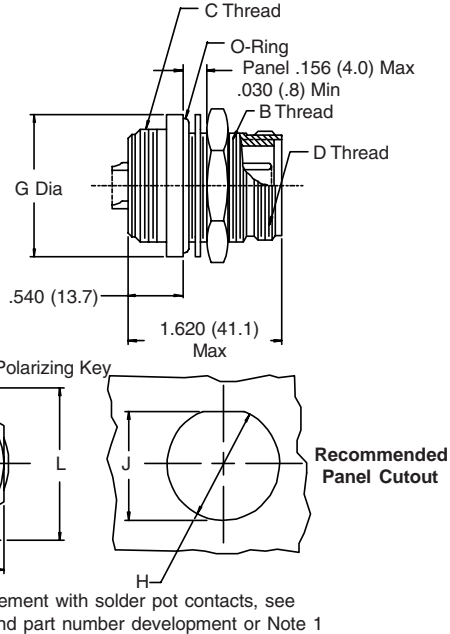


**Sym M**  
Molding Adapter  
Option

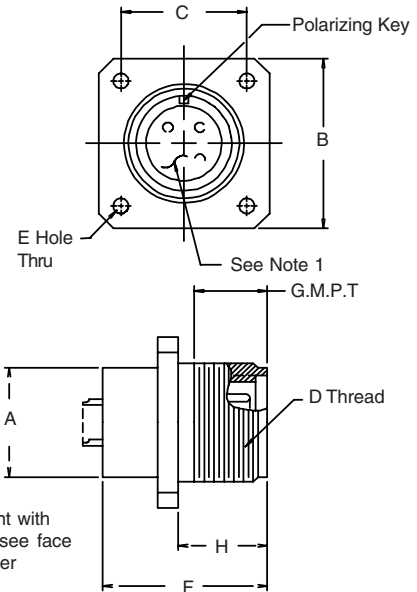


For Environmental Dust  
Covers Ref. Glenair P/N  
667-009 (plug) and  
667-010 (receptacle)

## 190-016 Jam Nut Receptacle Assembly



## 190-019 Box Mount Receptacle Assembly



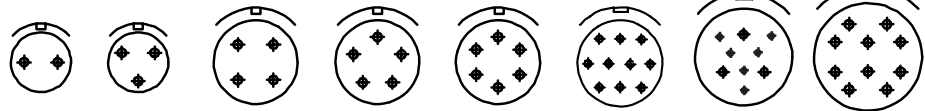
NOTE:  
1. Insert arrangement with solder pot contacts, see face views and part number development

Metric dimensions (mm) are indicated in parentheses

# 190-015 Composite Plug, 190-016 Composite Jam Nut Receptacle & 190-019 Composite Box Mount Receptacle



## Insert Arrangements



Shell Size - Insert Arrangement Dash No.	10SL-4	10SL-3	14S-2	14S-5	14S-6	14S-10	16-2	18-1
Contact Size & Quantity	2 - #16	3 - #16	4 - #16	5 - #16	6 - #16	10 - #20	3 - #12, 6 - #20	10 - #16
MS Service Rating	A	A	INST.	INST.	INST.	INST.	INST.	4 A, 6 Inst.
Available Alternate Insert Positions (Degrees rotation clockwise looking into the front of the pin insert)	n/a	n/a	X=120°, Y= 240°	n/a	n/a	n/a	n/a	W=70°, X=145°, Y=215°, Z=290°

## DIMENSIONAL DETAILS (190-019)

Shell Size	A Max	B Sq ±.031 (0.8)	C ±.005 (0.1)	D Thread Class 2A	E ±.010 (0.3) - .005 (0.1)	F Max	G M.P.T.	H ±.031 (0.8) - .000
10SL	.609 (15.5)	1.000 (25.4)	.719 (19.3)	.625 - .1P-.1L	.120 (3.0)	1.000 (25.4)	.375 (9.5)	.562 (14.3)
14S	.733 (18.6)	1.188 (30.2)	.906 (25.7)	.875 - .1P-.1L	.120 (3.0)	1.000 (25.4)	.375 (9.5)	.562 (14.3)
18	.975 (24.8)	1.375 (34.9)	1.062 (32.0)	1.125 - .1P-.1L	.120 (3.0)	1.120 (28.4)	.625 (15.9)	.724 (18.4)

## DIMENSIONAL DETAILS (190-015)

Shell Size	D Thread Class 2B	Standard Cable Range Min	Standard Cable Range Max	Length Max
10SL	.625 - .1P-.1L	.203 (5.2)	.375 (9.5)	3.000 (76.2)
14S	.875 - .1P-.1L	.203 (5.2)	.375 (9.5)	3.000 (76.2)
18	1.125 - .1P-.1L	.328 (8.3)	.500 (12.7)	3.000 (76.2)

## DIMENSIONAL DETAILS (190-016)

Shell Size	B Thread Class 2A	C Thread Class 2A	D Thread Class 2A	D Dia Max	E Dia +.010 (0.3) - .000	F +.010 (0.3) - .000	G Dia (Flats)	H Max	Cable Range* Min	Cable Range* Max
10SL	3/4 - 20 UNEF	5/8 - 24 UNEF	.625 - .1P-.1L	1.100 (27.9)	.760 (19.3)	.710 (18.0)	.938 (23.8)	1.090 (27.7)	.210 (5.3)	.312 (7.9)
14S	1 - 20 UNEF	7/8 - 20 UNEF	.875 - .1P-.1L	1.450 (36.8)	1.010 (25.7)	.960 (24.4)	1.250 (31.8)	1.440 (36.6)	.210 (5.3)	.312 (7.9)
18	1 1/4 - 18 UNEF	1 1/8 - 16 UN	1.125 - .1P-.1L	1.750 (44.5)	1.260 (32.0)	1.210 (30.7)	1.500 (38.1)	1.730 (43.9)	.310 (7.9)	.438 (11.1)

\* Cable Range Min. Not Applicable with Molding Adapter Option

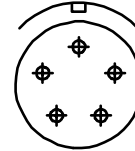
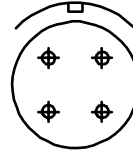
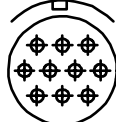
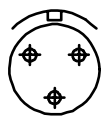
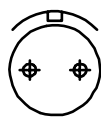
Products are manufactured from a 40% glass filled Ryton engineering plastic—a high temperature, injection molded material with good mechanical properties and excellent chemical resistance at elevated temperatures, up to 500° F.

## PERFORMANCE RATINGS

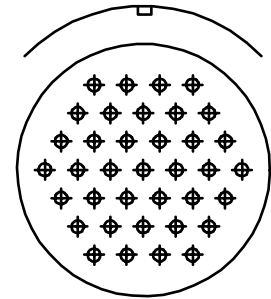
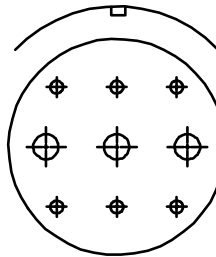
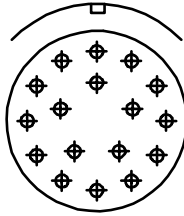
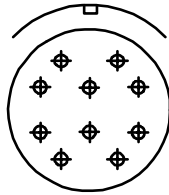
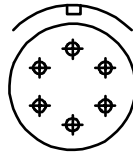
Shell, Barrel, Coupling Nut and Rear Accy Hdwr.	High Grade Engineering Thermoplastic
Insulator, O-Ring, Grommet	Nitrile/Neoprene
Grommet Follower (Plug Assy)	Nylon
Contacts	Gold Plated Copper Alloy With Solder Pots
Contact Current Rating	#12: 12.5 Amps; #16: 10 Amps; #20: 7.5 Amps
Rated Operating Voltage	Service Rating INST - 250 VDC Service Rating A - 700 VDC
Dielectric Withstanding Voltage (Hi-Pot)	Service Rating INST - 1000 VRMS Service Rating A - 2000 VRMS
Insulation Resistance	5000 Megohms minimum at 500 VDC and +25°C
Temperature Range	-55°C to +125°C

1. Metric dimensions (mm) are indicated in parentheses.
2. **Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of application.**

## 257-003, 257-005, 257-007 and 257-012 Insert Arrangements & Misc. Information (Face View of Pin Insert Shown)



<b>Insert Arrangement</b>	10SL-4	10SL-3	12-10	14S-2	14S-5
<b>Contact Size &amp; Quantity</b>	2 - #16	3 - #16	10 - #20	4 - #16	5 - #16
<b>MS Service Rating</b>	A	A	INST	INST	INST
<b>Alternative Position</b>	N/A	N/A	N/A	X & Y	X

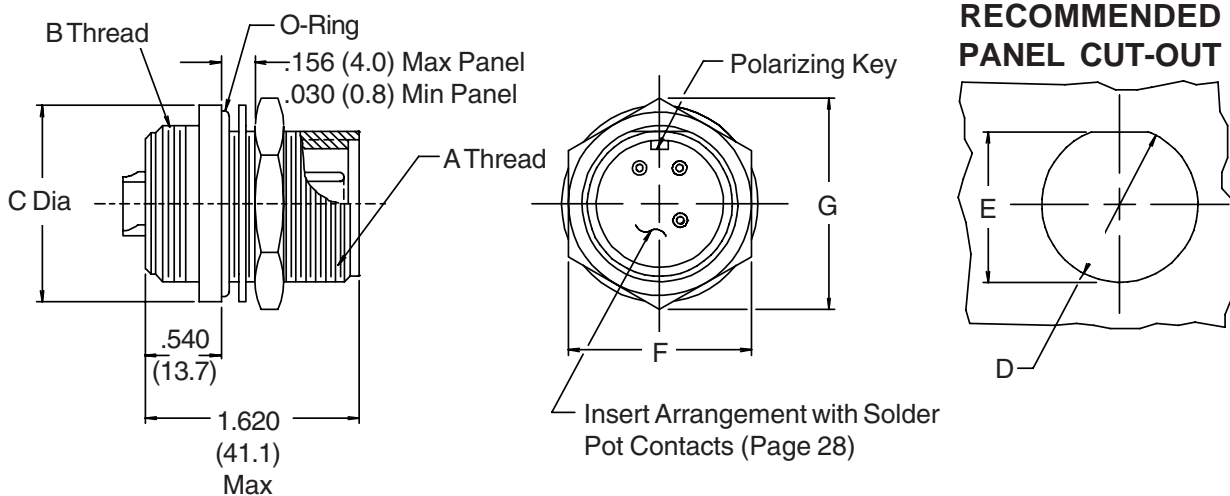
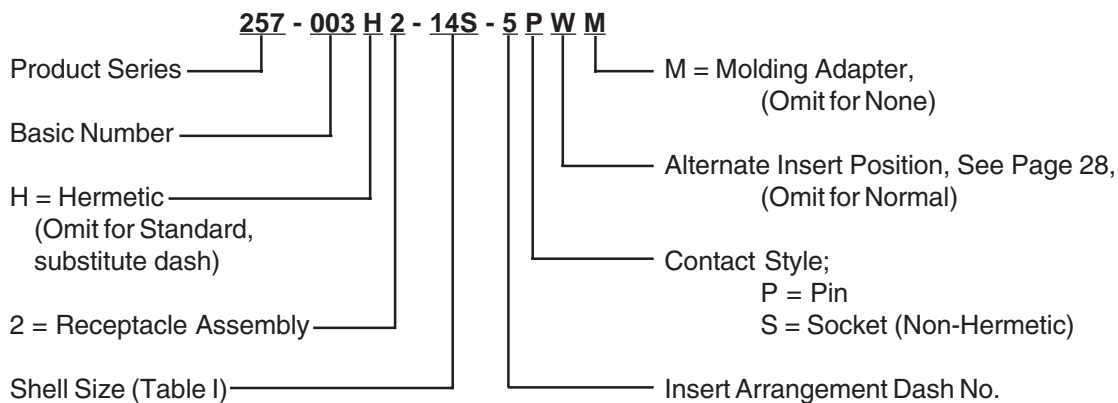


<b>Insert Arrangement</b>	14S-6	16S-1	18-1	20-29	24-11
<b>Contact Size &amp; Quantity</b>	6 - #16	7 - #16	10 - #16	17 - #16	6 - #12, 3 - #8
<b>MS Service Rating</b>	INST	A	4A 6 INST	A	A
<b>Alternative Position</b>	N/A	W & Z	W, X, Y & Z	W & Z	W,X,Y & Z

### TABLE III

Barrel and Rear Accy Hdwr.	Passivated Stainless Steel
Coupling Nut	Nickel/Aluminum/Bronze
Insulator, O-Ring, Grommet	Nitrile/Neoprene
Contacts	Gold Plated Copper Alloy With Solder Pots
Contact Current Rating	#20-5 Amps #16-10 Amps #12-17 Amps #8-35 Amps
Rated Operating Voltage	Service Rating INST - 250 VDC Service Rating A - 700 VDC
Dielectric Withstanding Voltage (Hi-Pot)	Service Rating INST - 1000 VRMS Service Rating A - 2000 VRMS
Insulation Resistance	5000 Megohms minimum at 500 VDC and +25°C
Temperature Range	-55°C to +125°C

# 257-003 Connector Receptacle Assembly Stainless Steel Harsh Environment



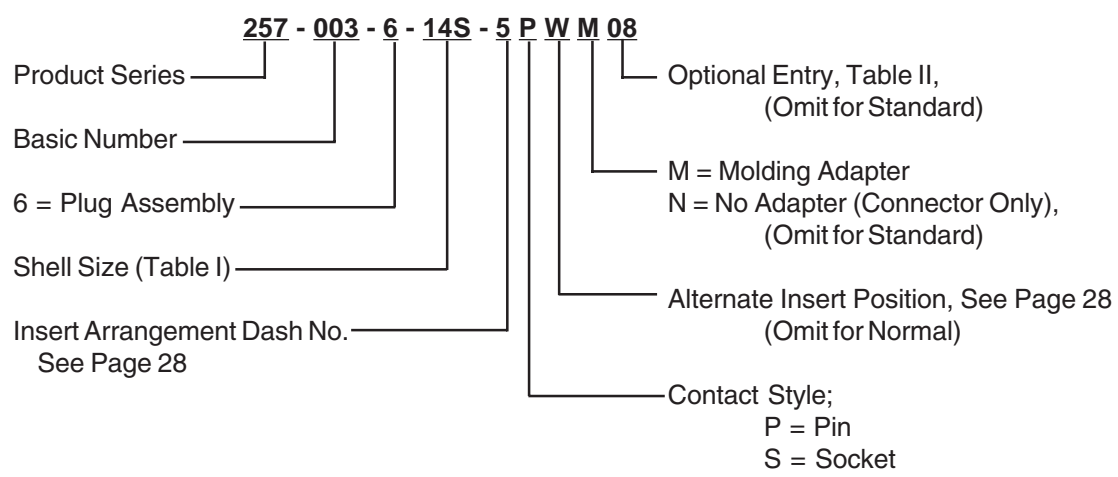
**TABLE I**

Shell Size	A Thread Class 2A	B Thread Class 2A	C Max	D		F Max	G Max
				+ .010 (0.3) - .000 (0)	E + .010 (0.3) - .000 (0)		
10SL	5/8 - 24 UNEF	5/8 - 24 UNEF	1.030 (26.2)	.653 (16.6)	.585 (14.9)	.812 (20.6)	.940 (23.9)
12	3/4 - 20 UNEF	3/4 - 20 UNEF	1.160 (29.5)	.760 (19.3)	.710 (18.0)	.938 (23.8)	1.090 (27.7)
14S	7/8 - 20 UNEF	7/8 - 20 UNEF	1.280 (32.5)	.885 (22.5)	.835 (21.2)	1.125 (28.6)	1.250 (31.8)
18	1 1/8 - 18 UNEF	1 1/8 - 16 UN	1.660 (42.2)	1.135 (28.8)	1.085 (27.6)	1.500 (31.8)	1.690 (42.9)
20	1 1/4 - 18 UNEF	1 1/4 - 16 UN	1.780 (45.2)	1.260 (32.0)	1.210 (30.7)	1.625 (41.3)	1.820 (46.2)
24	1 1/2 - 18 UNEF	1 1/2 - 16 UN	2.030 (51.6)	1.510 (38.4)	1.460 (37.1)	1.875 (47.6)	2.120 (53.8)
28	1 3/4 - 18 UNEF	1 3/4 - 16 UN	2.280 (57.9)	1.760 (44.7)	1.710 (43.4)	2.125 (54.0)	2.420 (61.5)

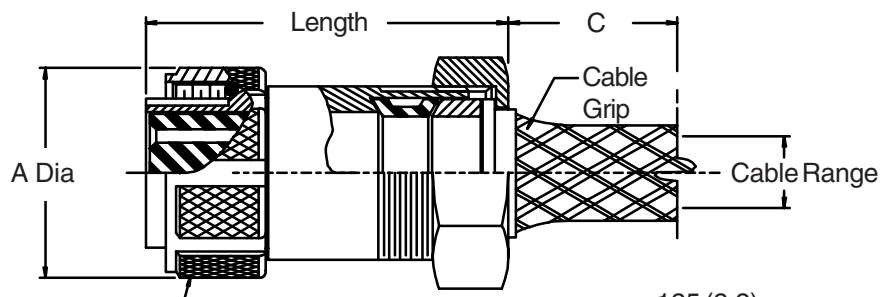
1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.



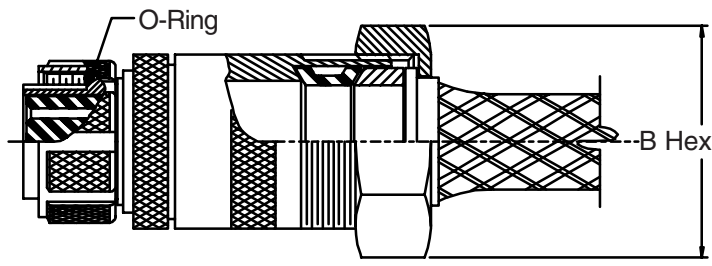
**257-003**  
**Connector Plug Assembly**  
**Stainless Steel Harsh Environment**



**STYLE I**

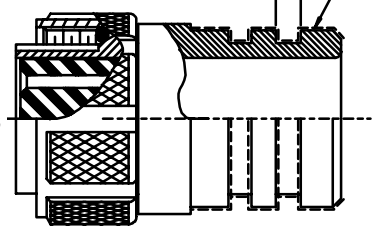


Knurl Style Mfr Option



**STYLE II**

.125 (3.2) Sand Blast



**STYLE M**  
**MOLDING ADAPTER**  
**OPTION**

**257-003**  
**Connector Plug Assembly**  
**Stainless Steel Harsh Environment**



**TABLE I**

Shell Size	A Max	B Flats	Standard Cable Range		Config. Style	Max Cable Entry (Table II)	Length Max
			Min	Max			
10SL	1.031 (26.2)	1.000 (25.4)	.210 (5.3)	.312 (7.9)	I	04	3.000 (76.2)
12	1.125 (28.6)	1.380 (35.1)	.500 (12.7)	.625 (15.9)	II	08	3.000 (76.2)
14S	1.219 (31.0)	1.000 (25.4)	.210 (5.3)	.312 (7.9)	I	10	3.000 (76.2)
18	1.406 (35.7)	1.220 (31.0)	.310 (7.9)	.438 (11.1)	I	12	3.000 (76.2)
20	1.531 (38.9)	1.500 (38.1)	.530 (13.5)	.750 (19.1)	I	14	3.500 (88.9)
24	1.781 (45.2)	1.500 (38.1)	.530 (13.5)	.750 (19.1)	I	16	3.500 (88.9)
28	2.031 (51.6)	1.500 (38.1)	.530 (13.5)	.750 (19.1)	I	16	3.500 (88.9)

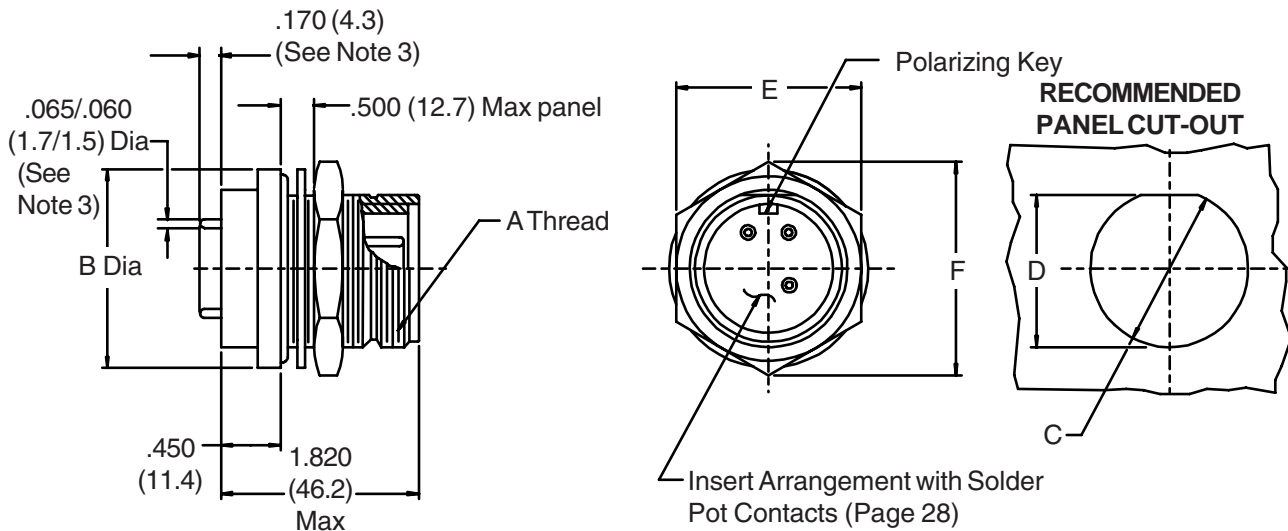
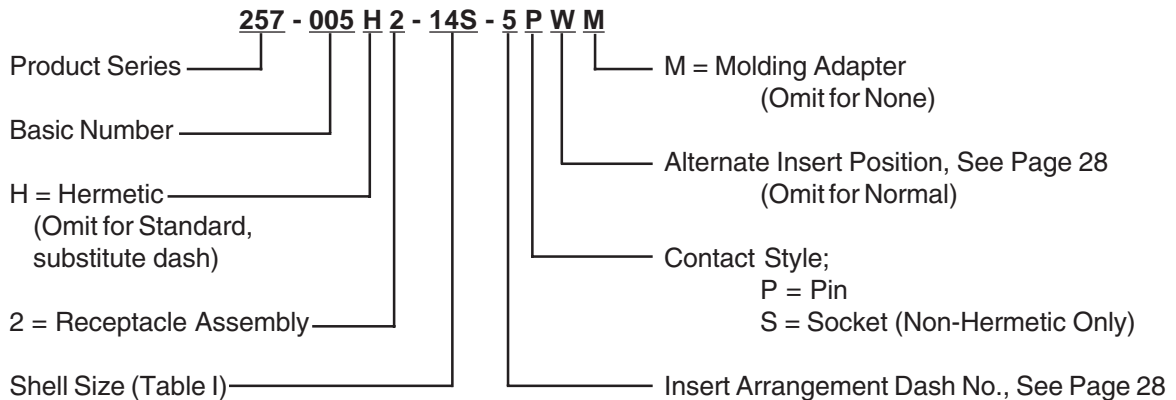
**TABLE II**

Dash No.	C Ref	Cable Range	
		Min	Max
03	5.120 (130.0)	.180 (4.6)	.210 (5.3)
04	5.750 (146.1)	.210 (5.3)	.312 (7.9)
06	7.000 (177.8)	.310 (7.9)	.438 (11.1)
08	7.120 (180.8)	.438 (11.1)	.500 (12.7)
10	7.370 (184.3)	.500 (12.7)	.625 (15.9)
12	9.000 (228.6)	.530 (13.5)	.750 (19.1)
14	8.000 (203.2)	.750 (19.1)	.875 (22.2)
16	9.000 (228.6)	.875 (22.2)	1.000 (25.4)

1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.



**257-005**  
**Connector Receptacle Assembly**  
**Stainless Steel Harsh Environment**  
**With Printed Circuit Contacts**

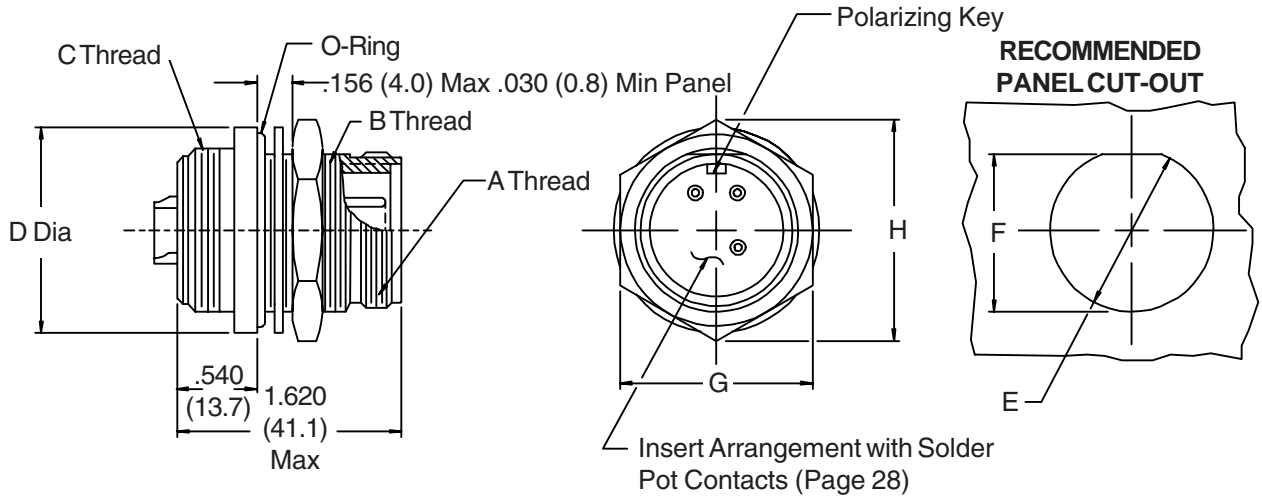
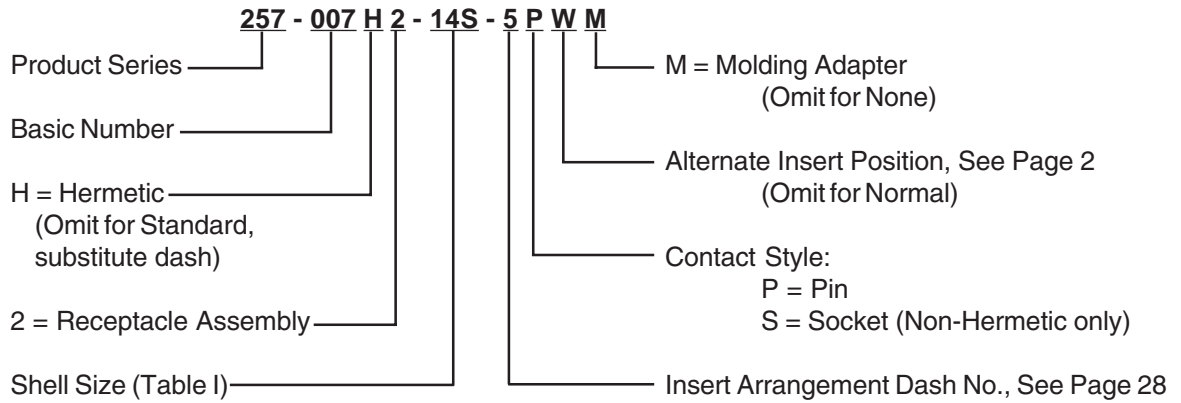


Shell Size	A Thread Class 2A	B Dia Max	C Dia +.010 (0.3) -.000 (0)	D +.010 (0.3) -.000 (0)	E Flats	F Ref
10SL	5/8 - 24 UNEF	1.030 (26.2)	.653 (16.6)	.585 (14.9)	.870 (22.1)	1.000 (25.4)
12	3/4 - 20 UNEF	1.160 (29.5)	.760 (19.3)	.710 (18.0)	.995 (25.3)	1.125 (28.6)
14S	7/8 - 20 UNEF	1.280 (32.5)	.885 (22.5)	.835 (21.2)	1.120 (28.4)	1.250 (31.8)
18	1 1/8 - 18 UNEF	1.660 (42.2)	1.135 (28.8)	1.085 (27.6)	1.495 (38.0)	1.730 (43.9)
20	1 1/4 - 18 UNEF	1.780 (45.2)	1.260 (32.0)	1.210 (30.7)	1.620 (41.1)	1.870 (47.5)
24	1 1/2 - 18 UNEF	2.030 (51.6)	1.510 (38.4)	1.460 (37.1)	1.870 (47.5)	2.165 (55.0)
28	1 3/4 - 18 UNEF	2.280 (57.9)	1.760 (44.7)	1.710 (43.4)	2.120 (53.8)	2.448 (62.2)

1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.
3. Applies to size 16 contacts only. Consult factory for other sizes.



# 257-007 Connector Receptacle Assembly Stainless Steel Harsh Environment

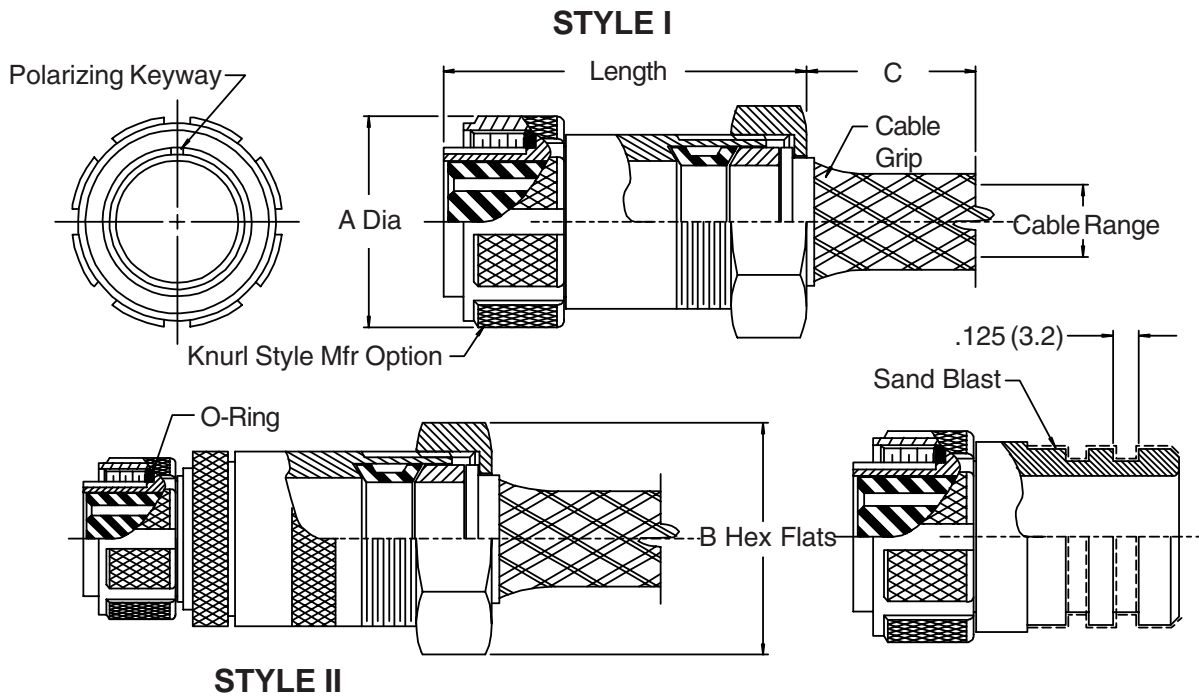
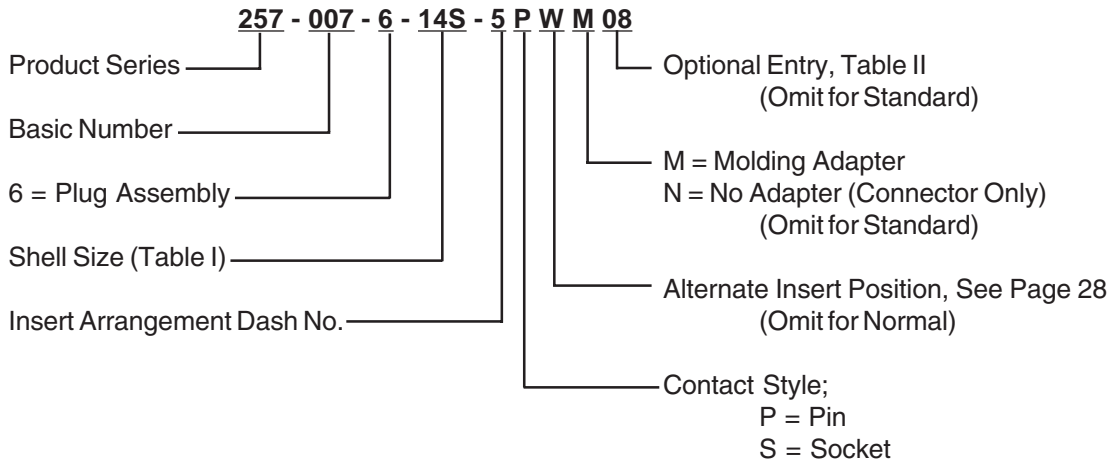


**TABLE I**

Shell Size	A Thread Class 2A	B Thread Class 2A	C Thread Class 2A	D Dia Max	E Dia + .010 (0.3) - .000 (0)	F + .010 (0.3) - .000 (0)	G Flats	H Max
10SL	.625 - .1P-1L	3/4 - 20 UNEF	5/8 - 24 UNEF	1.100 (27.9)	.760 (19.3)	.710 (18.0)	.938 (23.8)	1.090 (27.7)
12	.750 - .1P-1L	7/8 - 20 UNEF	3/4 - 20 UNEF	1.250 (31.8)	.885 (22.5)	.835 (21.2)	1.062 (27.0)	1.230 (31.2)
14S	.875 - .1P-1L	1 - 20 UNEF	7/8 - 20 UNEF	1.450 (36.8)	1.010 (25.7)	.965 (24.5)	1.250 (31.8)	1.440 (36.6)
18	1.125 - .1P-1L	1 1/4 - 18 UNEF	1 1/8 - 16 UN	1.750 (44.5)	1.260 (32.0)	1.210 (30.7)	1.500 (38.1)	1.730 (43.9)
20	1.250 - .1P-1L	1 1/2 - 18 UNEF	1 1/4 - 16 UN	2.030 (51.6)	1.510 (38.4)	1.460 (37.1)	1.750 (44.5)	2.020 (51.3)
24	1.500 - .1P-1L	1 3/4 - 18 UNEF	1 1/2 - 16 UN	2.340 (59.4)	1.760 (44.7)	1.710 (43.4)	2.000 (50.8)	2.320 (58.9)
28	1.750 - .1P-1L	2 - 18 UNEF	1 3/4 - 16 UN	2.550 (64.8)	2.010 (51.1)	1.960 (49.8)	2.187 (55.5)	2.530 (64.3)

1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.

# 257-007 Connector Plug Assembly Stainless Steel Harsh Environment



**257-007**  
**Connector Plug Assembly**  
**Stainless Steel Harsh Environment**



**TABLE I**

Shell Size	A Max	B Flats	Standard Cable Range		Config. Style	Max Cable Entry (Table II)	Length Max
			Min	Max			
10SL	1.031 (26.2)	.870 (22.1)	.210 (5.3)	.312 (7.9)	I	04	3.000 (76.2)
12	1.125 (28.6)	1.250 (31.8)	.500 (12.7)	.625 (15.9)	II	08	3.000 (76.2)
14S	1.219 (31.0)	.870 (22.1)	.210 (5.3)	.312 (7.9)	I	10	3.000 (76.2)
18	1.406 (35.7)	1.000 (25.4)	.310 (7.9)	.438 (11.1)	I	12	3.000 (76.2)
20	1.531 (38.9)	1.380 (35.1)	.530 (13.5)	.750 (19.1)	I	14	3.500 (88.9)
24	1.781 (45.2)	1.380 (35.1)	.530 (13.5)	.750 (19.1)	I	16	3.500 (88.9)
28	2.031 (51.6)	1.380 (35.1)	.530 (13.5)	.750 (19.1)	I	16	3.500 (88.9)

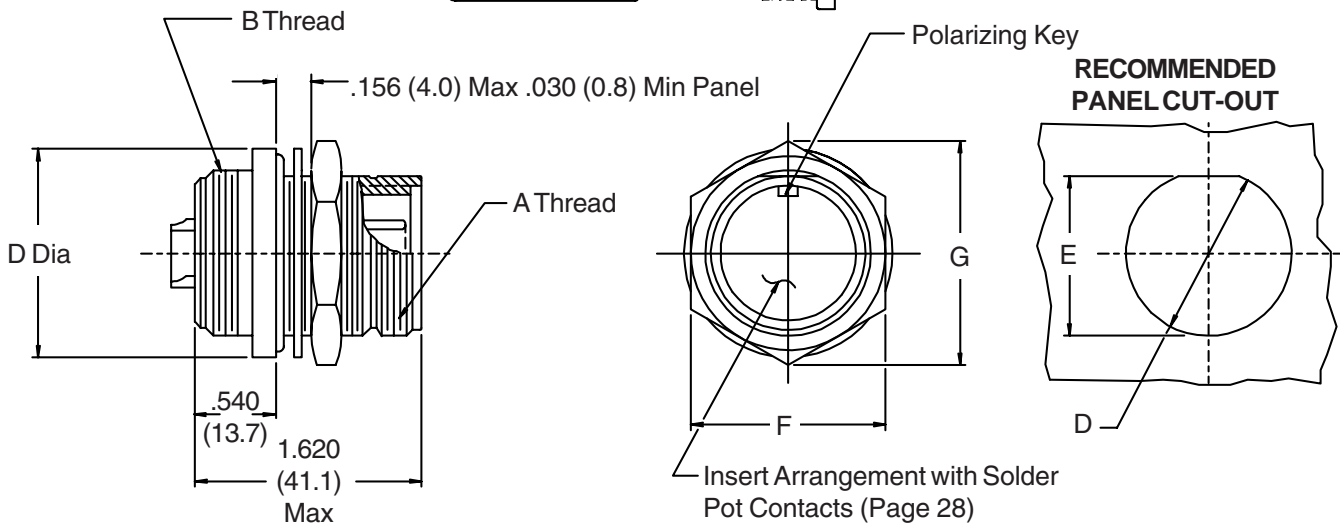
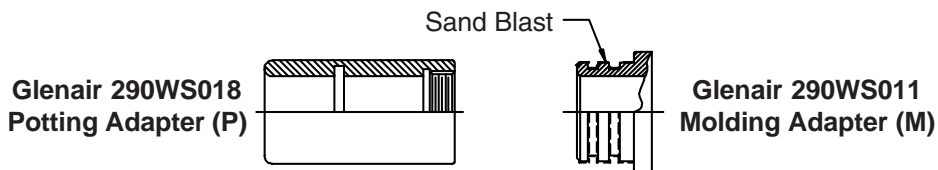
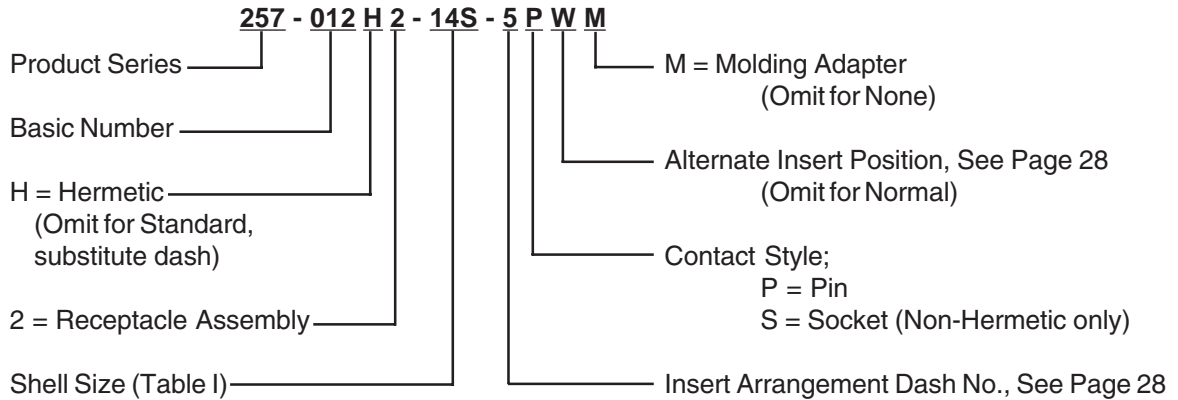
**TABLE II**

Dash No.	C Ref	Cable Range	
		Min	Max
03	5.120 (130.0)	.180 (4.6)	.210 (5.3)
04	5.750 (146.1)	.210 (5.3)	.312 (7.9)
06	7.000 (177.8)	.310 (7.9)	.438 (11.1)
08	7.120 (180.8)	.438 (11.1)	.500 (12.7)
10	7.370 (184.3)	.500 (12.7)	.625 (15.9)
12	9.000 (228.6)	.530 (13.5)	.750 (19.1)
14	8.000 (203.2)	.750 (19.1)	.875 (22.2)
16	9.000 (228.6)	.875 (22.2)	1.000 (25.4)

1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.



## 257-012 Connector Receptacle Assembly Stainless Steel Harsh Environment



**TABLE I**

Shell Size	A Thread Class 2A	B Thread Class 2A	C Max	D		F Max	G Max
				+ .010 (0.3) - .000 (0)	E + .010 (0.3) - .000 (0)		
10SL	5/8 - 24 UNEF	5/8 - 24 UNEF	1.030 (26.2)	.653 (16.6)	.585 (14.9)	.875 (22.2)	.940 (23.9)
12	3/4 - 20 UNEF	3/4 - 20 UNEF	1.160 (29.5)	.760 (19.3)	.710 (18.0)	1.000 (25.4)	1.090 (27.7)
14S	7/8 - 20 UNEF	7/8 - 20 UNEF	1.280 (32.5)	.885 (22.5)	.835 (21.2)	1.125 (28.6)	1.250 (31.8)
16S	1 - 20 UNEF	1 - 20 UNEF	1.420 (36.1)	1.010 (25.7)	.960 (24.4)	1.250 (31.8)	1.390 (35.3)
18	1 1/8 - 18 UNEF	1 1/8 - 16 UN	1.660 (42.2)	1.135 (28.8)	1.085 (27.6)	1.500 (38.1)	1.690 (42.9)
20	1 1/4 - 18 UNEF	1 1/4 - 16 UN	1.780 (45.2)	1.260 (32.0)	1.210 (30.7)	1.625 (41.3)	1.820 (46.2)
24	1 1/2 - 18 UNEF	1 1/2 - 16 UN	1.030 (26.2)	1.510 (38.4)	1.460 (37.1)	1.875 (47.6)	2.120 (53.8)
28	1 3/4 - 18 UNEF	1 3/4 - 16 UN	2.280 (57.9)	1.760 (44.7)	1.710 (18.4)	2.125 (54.0)	2.420 (61.5)

1. Metric dimensions (mm) are indicated in parentheses.
2. Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of the application.
3. Mates to MIL-C-5015 (MS3106) Type Plug Connectors.

# 257-163 Flange Mount and 257-164 Weld Mount Connector Receptacle Assemblies Stainless Steel



5015 Type  
Connectors

**257-163 H 14S-5 P X**

Basic Part Number  
257-163 Flange Mount  
257-164 Weld Mount

H = Hermetic, Substitute Dash For Non-Hermetic

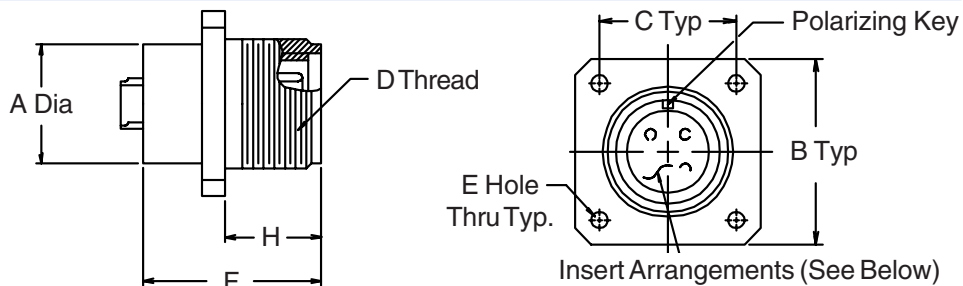
Shell Size

Alternate Insert Position (See Below),  
N for Normal

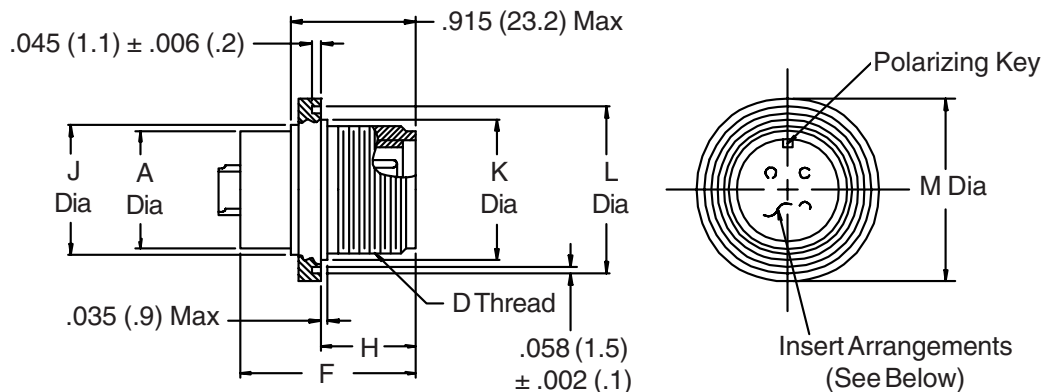
Contact Style: P = Pin,  
S = Socket (Non-Hermetic Only)

Insert Arrangement Dash No.

## 257-163 Flange Mount



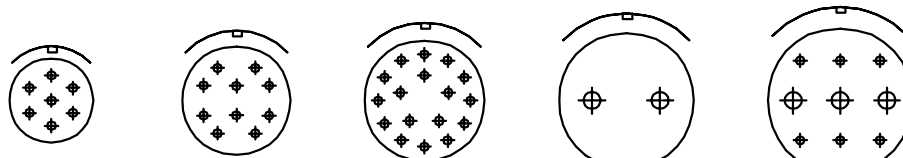
## 257-164 Weld Mount



## Insert Arrangements



Shell Size - Insert Arr. Dash No.	10SL-4	10SL-3	12-10	14S-2	14S-5	14S-6
Contact Size & Quantity	2 - #16	3 - #16	10 - #20	4 - #16	5 - #16	6 - #16
MS Service Rating	A	A	Inst.	Inst.	Inst.	Inst.
Available Alternate Insert Positions (Degrees rotation clockwise looking into the front of the pin insert)	n/a	n/a	n/a	X=120°, Y=240°	X=110°	n/a



Shell Size - Insert Arr. Dash No.	14S-7	18-1	20-29	22-1	24-11
Contact Size & Quantity	7 - #16	10 - #16	17 - #16	2 - #16	6 - #16, 3 - #18
MS Service Rating	Inst.	4 A, 6 Inst.	A	D	A
Available Alternate Insert Positions (Degrees rotation clockwise looking into the front of the pin insert)	W=90°, X=180°, Y=270°	W=70°, X=145°, Y=215°, Z=290°	W=80°, Z=280°	n/a	W=35°, X=110°, Y=250°, Z=325°

## 257-163 Flange Mount and 257-164 Weld Mount Connector Receptacle Assemblies Stainless Steel

### TABLE I

Dash No.	A		B Sq.		C		D Thread	E		F
	Max	(.8)	±.031	(.8)	±.005	(.1)	Class 2A UNEF	+010 -.005	(.1) (1.3)	Max
10SL	.609	(15.5)	1.000	(25.4)	.719	(18.3)	.625 - 24	.120	(3.0)	1.000 (25.4)
12	.650	(16.5)	1.094	(27.8)	.812	(20.6)	.750 - 20	.120	(3.0)	1.000 (25.4)
14S	.733	(18.6)	1.188	(30.2)	.906	(23.0)	.875 - 20	.120	(3.0)	1.000 (25.4)
18	.975	(24.8)	1.375	(34.9)	1.062	(27.0)	1.125 - 18	.120	(3.0)	1.200 (30.5)
20	1.105	(28.1)	1.500	(38.1)	1.156	(29.4)	1.250 - 18	.120	(3.0)	1.200 (30.5)
22	1.328	(33.7)	1.625	(41.3)	1.250	(31.8)	1.375 - 18	.147	(3.7)	1.200 (30.5)
24	1.350	(34.3)	1.750	(44.5)	1.375	(34.9)	1.500 - 18	.147	(3.7)	1.200 (30.5)

### TABLE II

Dash No.	H		J Dia	K Dia	L Dia	M Dia
	+0.031 -.000	(.8) (.0)				
10SL	.562	(14.3)	.750 (19.1)	.825 (21.0)	1.061 (26.9)	1.132 (28.8)
12	.562	(14.3)	.906 (23.0)	.950 (24.1)	1.187 (30.1)	1.258 (32.0)
14S	.562	(14.3)	1.016 (25.8)	1.075 (27.3)	1.279 (32.5)	1.345 (34.2)
18	.724	(18.4)	1.250 (31.8)	1.275 (32.4)	1.479 (37.6)	1.550 (39.4)
20	.724	(18.4)	1.375 (34.9)	1.450 (36.8)	1.654 (42.0)	1.725 (43.8)
22	.724	(18.4)	1.500 (38.1)	1.575 (40.0)	1.744 (44.3)	1.815 (46.1)
24	.724	(18.4)	1.625 (41.3)	1.700 (43.2)	1.879 (47.7)	1.950 (49.5)

### TABLE III

	Non-Hermetic Receptacles	Hermetic Receptacles
Shell	Passivated Stainless Steel	Passivated Stainless Steel
Insulator	Nitrile/Neoprene	Full Glass
O-Ring, Grommet	Nitrile/Neoprene	Nitrile/Neoprene
Contacts	Gold Plated Copper Alloy With Solder Pots	Alloy 52/Gold Plate
Contact Current Rating	#20-5 Amps #16-10 Amps #12-17 Amps #8-35 Amps	#20-5 Amps #16-10 Amps #12-17 Amps #8-35 Amps
Rated Operating Voltage	Service Rating INST - 250 VDC Service Rating A - 700 VDC Service Rating D - 1250 VDC	250 VDC
Dielectric Withstanding Voltage (Hi-Pot)	Service Rating INST - 1000 VRMS Service Rating A - 2000 VRMS Service Rating D - 2800 VRMS	1000 VRMS
Insulation Resistance	5000 Megohms minimum at 500 VDC and +25°C	5000 Megohms minimum at 500 VDC and +25°C
Temperature Range	-55°C to +125°C	-55°C to +125°C

1. Metric dimensions (mm) are indicated in parentheses.
2. **Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of application.**

# 257-165 Stainless Steel Plug Assembly and 257-166 Stainless Steel Receptacle Assembly



**257-165-14S-5 P X M 08**

Basic Part Number ——— 257-165 Plug Assembly  
257-166 Receptacle Assy

Shell Size ———

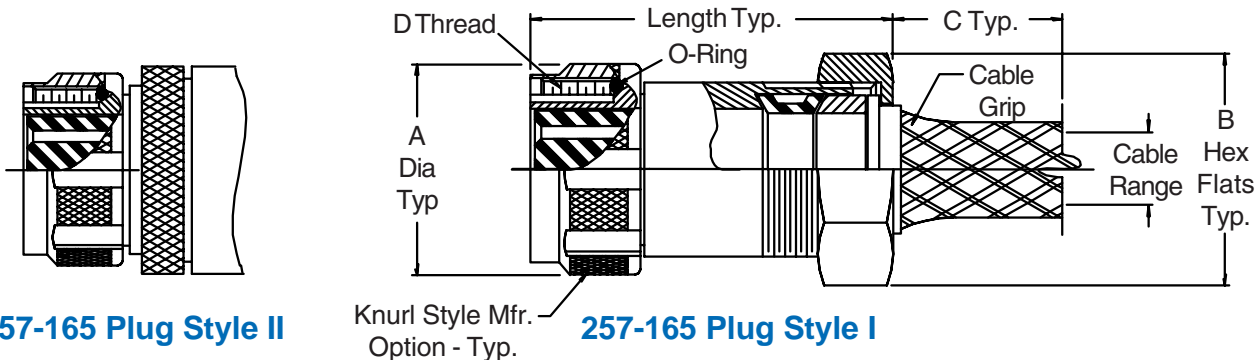
Insert Arrangement Dash No. ———

Contact Style: P = Pin, S = Socket

Optional Entry (Table II)

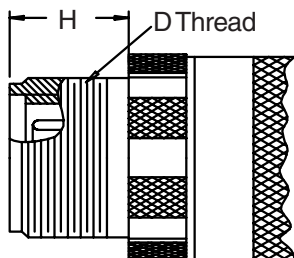
M = Molding Adapter  
N = No Adapter, Connector Only  
Omit for Standard

Alternate Insert Position (See Below),  
N for Normal

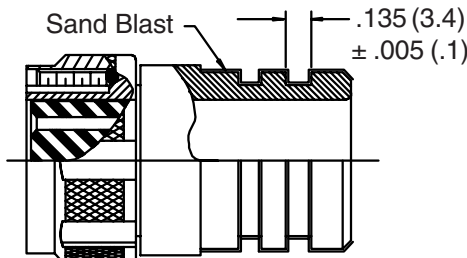


**257-165 Plug Style II**

**257-165 Plug Style I**



**257-166 Receptacle**

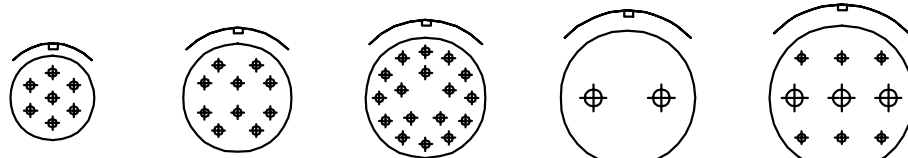


**Molding Adapter Option**

## Insert Arrangements



Shell Size - Insert Arr. Dash No.	10SL-4	10SL-3	12-10	14S-2	14S-5	14S-6
Contact Size & Quantity	2 - #16	3 - #16	10 - #20	4 - #16	5 - #16	6 - #16
MS Service Rating	A	A	Inst.	Inst.	Inst.	Inst.
Available Alternate Insert Positions (Degrees rotation clockwise looking into the front of the pin insert)	n/a	n/a	n/a	X=120°, Y=240°	X=110°	n/a



Shell Size - Insert Arr. Dash No.	14S-7	18-1	20-29	22-1	24-11
Contact Size & Quantity	7 - #16	10 - #16	17 - #16	2 - #16	6 - #16, 3 - #18
MS Service Rating	Inst.	4 A, 6 Inst.	A	D	A
Available Alternate Insert Positions (Degrees rotation clockwise looking into the front of the pin insert)	W=90°, X=180°, Y=270°	W=70°, X=145°, Y=215°, Z=290°	W=80°, Z=280°	n/a	W=35°, X=110°, Y=250°, Z=325°

## 257-165 Stainless Steel Plug Assembly 257-166 Stainless Steel Receptacle Assembly

### TABLE I

Dash No.	Config. Style	A		B		D Thread		H		Length Max
		Max	(mm)	Flats	(mm)	Class 2A UNEF	+0.031 (-0.001)	(mm)	(mm)	
10SL	I	1.031	(26.2)	1.00	(25.4)	.625 - 24	.562	(14.3)	3.00	(76.2)
12	II	1.125	(28.6)	1.35	(34.3)	.750 - 20	.562	(14.3)	3.00	(76.2)
14S	I	1.219	(31.0)	1.00	(25.4)	.875 - 20	.562	(14.3)	3.00	(76.2)
18	I	1.406	(35.7)	1.12	(28.4)	1.125 - 18	.724	(18.4)	3.50	(88.9)
20	I	1.531	(38.9)	1.50	(38.1)	1.250 - 18	.724	(18.4)	3.50	(88.9)
22	I	1.645	(41.8)	1.50	(38.1)	1.375 - 18	.724	(18.4)	3.50	(88.9)
24	I	1.781	(45.2)	1.50	(38.1)	1.500 - 18	.724	(18.4)	3.50	(88.9)

### TABLE I (Continued)

Dash No.	Cable Range		Max Dash No. Style I
	Min	Max	
10SL	.210 (5.3)	.312 (7.9)	04
12	.500 (12.7)	.625 (15.9)	08
14S	.210 (5.3)	.312 (7.9)	10
18	.310 (7.9)	.438 (11.1)	12
20	.530 (13.5)	.750 (19.1)	14
22	.530 (13.5)	.750 (19.1)	14
24	.530 (13.5)	.750 (19.1)	16

### TABLE II (Optional Entries)

Dash No.	Cable Range		C Ref.
	Min	Max	
03	.180 (4.6)	.210 (5.3)	5.12 (130.0)
04	.210 (5.3)	.312 (7.9)	5.75 (146.1)
06	.310 (7.9)	.438 (11.1)	7.00 (177.8)
08	.438 (11.1)	.500 (12.7)	7.12 (180.8)
10	.500 (12.7)	.625 (15.9)	7.37 (187.2)
12	.530 (13.5)	.750 (19.1)	9.00 (228.6)
14	.750 (19.1)	.875 (22.2)	8.00 (203.2)
16	.875 (22.2)	1.000 (25.4)	9.00 (228.6)

### TABLE III

Barrel and Rear Accy Hdwr.	Passivated Stainless Steel
Coupling Nut	Nickel/Aluminum/Bronze
Insulator, O-Ring, Grommet	Nitrile/Neoprene
Contacts	Gold Plated Copper Alloy With Solder Pots
Contact Current Rating	#20-5 Amps #16-10 Amps #12-17 Amps #8-35 Amps
Rated Operating Voltage	Service Rating INST - 250 VDC Service Rating A - 700 VDC
Dielectric Withstanding Voltage (Hi-Pot)	Service Rating INST - 1000 VRMS Service Rating A - 2000 VRMS
Insulation Resistance	5000 Megohms minimum at 500 VDC and +25°C
Temperature Range	-55°C to +125°C

1. Metric dimensions (mm) are indicated in parentheses.
2. **Electrical safety limits must be established by the user. Peak voltages, switching surges, etc., should be used to determine the safety of application.**