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● How to order

PART NUMBER						
<u>MS90555</u>	<u>C</u>	<u>32</u>	<u>4</u>	<u>12</u>	<u>S</u>	<u>Y</u>
1	2	3	4	5	6	7

1. MS Number-

- MS90555 designates wall mount receptacle (power source)
- MS90556 designates straight plug
- MS90557 designates cable connecting receptacle without coupling ring
- MS90558 designates wall mount plug with coupling ring (equipment end)

2. Shell Finish – C (conductive) for AC or N (nonconductive) for DC circuit

Grounding Assemblies : Finish C

Shell size	Current Rating Amps	Shell Master Key / Keyway Position						
		60Hz & 400Hz						
		1 Phase			3 Phase			
		2 Wire		3 Wire	3 Wire	3 Wire		
		120VAC	240VAC	120/240 VAC	450/480 VAC	120/208 VAC	240/416 VAC	277/480 VAC
28	40	4(120°)	5(135°)	4(120°)	---	4(120°)	5(135°)	6(150°)
32	60	4(120°)	5(135°)	4(120°)	---	4(120°)	5(135°)	6(150°)
44	100	4(120°)	---	4(120°)	1(60)	4(120°)	5(135°)	6(150°)
52	200	---	---	4(120°)	---	4(120°)	5(135°)	6(150°)

Non-grounding Assemblies : Finish N

Shell size	Current Rating Amps	Shell Master / Key Keyway Position
		DC
		2 Wire 28 VDC
28	40	N(105°)
32	60	N(105°)
44	100	N(105°)
52	200	N(105°)

3. Shell Size – related directly to current carrying capability

- Size 28 – 40 amperes
- Size 32 – 60 amperes
- Size 44 – 100 amperes
- Size 52 – 200 amperes

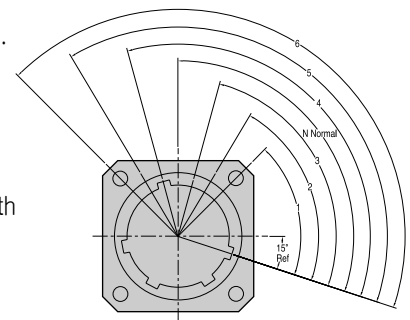
4. Master Key / Keyway Position – N designates normal position. Positions

1, 4, 5 and 6 of the master key/keyway prevent cross-mating of incompatible voltages. Refer to the adjacent illustration

5. Insert Arrangement – determined by connector size (current carrying capability) and cable configuration to be accommodated. Refer to pages 5 & 6

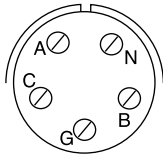
6. Contact Type – P for pin, S for socket. MS90555 and MS90557 are supplied with socket contacts only. MS90556 and MS90558 are supplied with pin contacts only.

7. Alternate Insert Rotation – used to prevent cross-mating of incompatible frequencies. Absence of a letter in this space indicates normal (0°) position of the insert. Refer to page 7.



● Contact arrangements

Shell Size 28, 40 amp rating



28-12, 28-13
Three phase AC, 4 wire, grounding

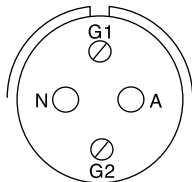
Cable:

28-12	IPCEA, type G, round, four #8 conductors
28-13	CO-04 HDF, (4/6-4/12R) 1090 per MIL-C-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	6	-317	-329
N, G	6N	-318	-329

Shell Size 32, 60 amp rating



32-04, 32-05
Single phase AC, 2 wire, grounding

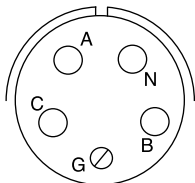
Cable:

32-04	IPCEA, type G, round, two #6 conductors
32-05	CO-02 HDF, (2/4-2/8R) 1100 per MIL-C-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A	4	-320	-331
N	4N	-321	-331
G1, G2	6N	-318	-329

Shell Size 32, 60 amp rating



32-12, 32-13
Three phase AC, 4 wire, grounding

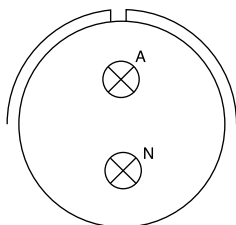
Cable:

32-12	IPCEA, type G, round, four #6 conductors
32-13	CO-04 HDF, (4/4-4/12R) 1290 per MIL-C-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	4	-320	-331
N	4N	-321	-331
G	6N	-318	-329

Shell Size 44, 100 amp rating



44-02, 44-03
28Volts DC, 2 wire

Cable:

44-02	IPCEA, type W, round, two #2 conductors
44-03	CO-20 HDF, (2/1) 1385 per MIL-C-3432

Contacts:

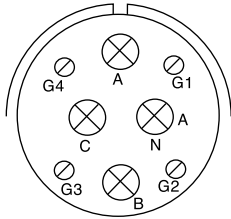
Position	Size	Pin M39029/48	Socket M39029/49
A	1/0-1	-323	-333
N	1/0N-1	-324	-333

CONTACT SIZE CODE

⊗ = #6 ○ = #4 ⊗ = #1/0 ⊗ = #4/0

● Contact arrangements

Shell Size 44, 100 amp rating



44-12, 44-13
Three phase AC, 4 wire, grounding

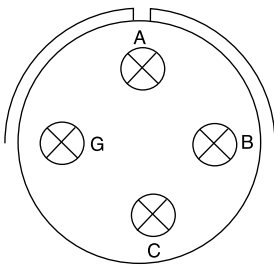
Cable:

44-12	IPCEA, type G, round, four #2 conductors
44-13	CO-04 HDF, (4/1-4/8R) 1620 per MIL-C-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	1/0-1	-323	-333
N	1/0N-1	-324	-333
G1, G2, G3, G4	6G	-319	-330

Shell Size 44, 100 amp rating
For Navy Ground Support Equipment use only .



44-50, 44-51, 44-52, 44-56
Three phase AC, 4 wire, grounding

44-50 Available in MS90555 & MS90558 only
4 each # 1 conductors

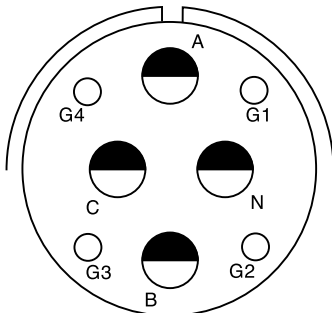
Cable:

44-51	Available in MS90556 & MS90557 only IPCEA, type W, round, four # 1 conductors
44-52	Available in MS90556 only IPCEA, type W, round, four # 2 conductors
44-56	Available in MS90556 only IPCEA, type W, round, four # 6 conductors

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	1/0-1	-323	-333
G	1/0N-1	-324	-333

Shell Size 52, 200 amp rating



52-12, 52-13
Three phase AC, 4 wire, grounding

Cable:

52-12	IPCEA, type G, round, four #4/0 conductors
52-13	CO-04 HDF, (4/0000-4/4R) 2380 per MIL-C-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	4/0	-327	-335
N	4/0N	-328	-335
G1, G2, G3, G4	4G	-322	-332

CONTACT SIZE CODE

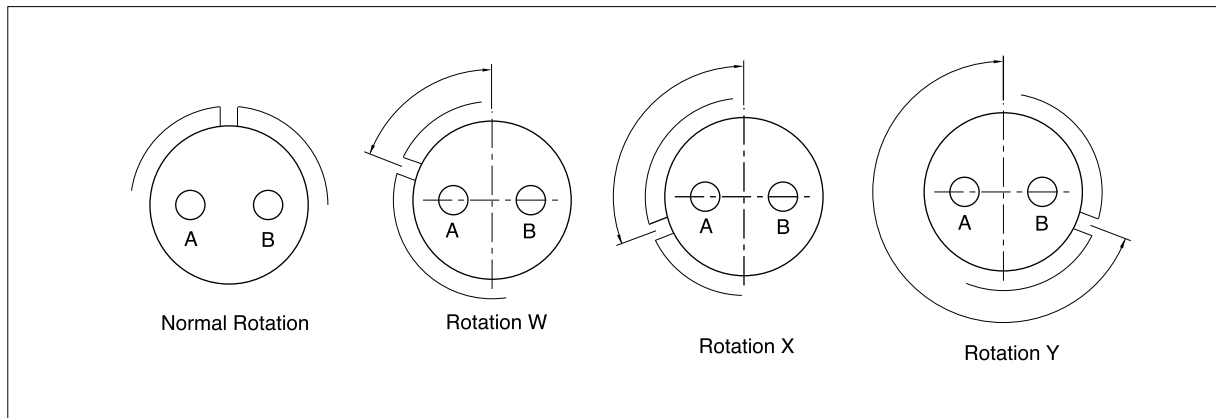
⊗ = #6 ○ = #4 ⊗ = #1/0 ◐ = #4/0

● Alternate insert rotation

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate insert rotations are available as indicated in the accompanying chart.

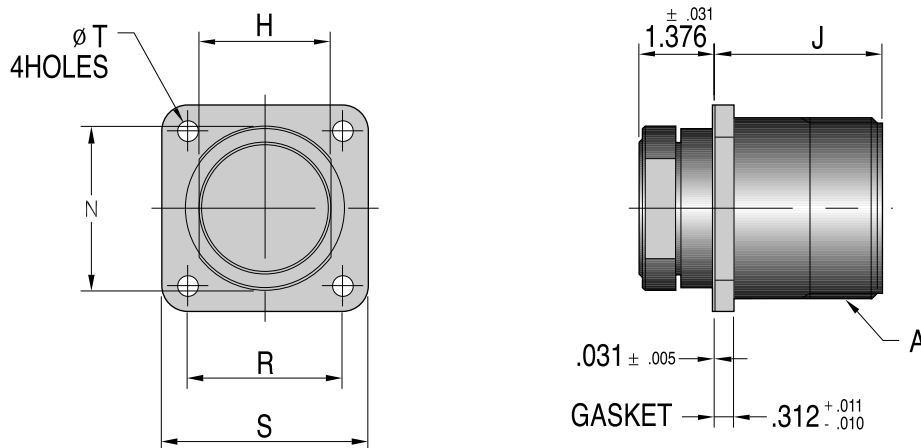
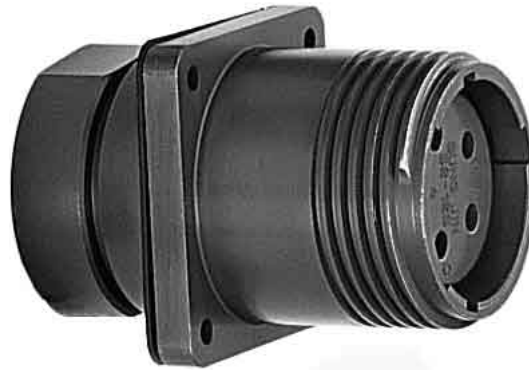
As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key.

The socket insert would be rotated counterclockwise the same number of degrees in respect to the normal shell key



Insert	Keying Position (degrees from normal position)			
	DC or 60 Hz Normal	400Hz		
		W	X	Y
28-02,-03	0° (normal)			
28-04,-05	0°			180°
28-06,-07	0°	45°	90°	
28-12,-13	0°		90°	180°
32-02,-03	0°			
32-04,-05	0°			
32-06,-07	0°			
32-12,-13	0°			
44-02,-03	0°			
44-04,-05	0°	45°		
44-06	0°	25°		
44-12,-13	0°	60°		
44-50,-51,-52,-56	0°			
52-02	0°			
52-06	0°	25°		
52-12,-13	0°	60°		

● MS90555 Wallmount receptacle (Power source)



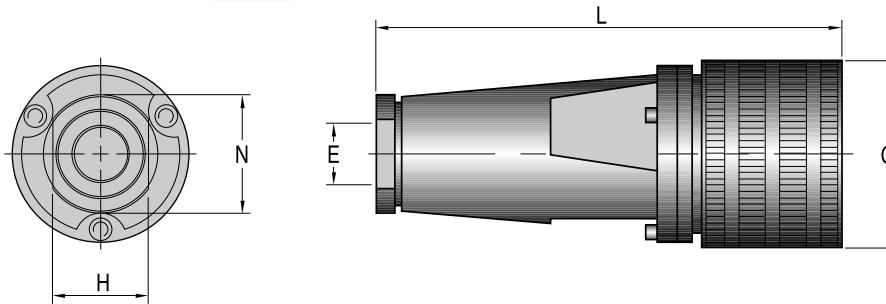
Shell Size	A THREAD CLASS 2A	H +.001 -.010	J +.016 -.000	N Dia +.011 -.020	R (BSC)	S +.021 -.020	T $\pm .005$
28	2.000-1428P-2857L	1.812	2.188	2.000	1.719	2.375	.177
32	2.250-1428P-2857L	2.062	2.188	2.250	1.906	2.625	.209
40	2.750-1428P-2857L	2.562	2.188	2.875	2.406	3.125	.281
44	3.000-1428P-2857L	2.812	2.188	3.125	2.656	3.375	.281
48	3.250-1428P-2857L	3.062	2.532	3.375	2.906	3.625	.281
52	3.500-1428P-2857L	3.312	2.532	3.625	3.156	3.875	.281

Inch

All dimensions for reference only.

Protective cover MS90563 is supplied as part of this connector assembly.

● MS90556 Straight plug



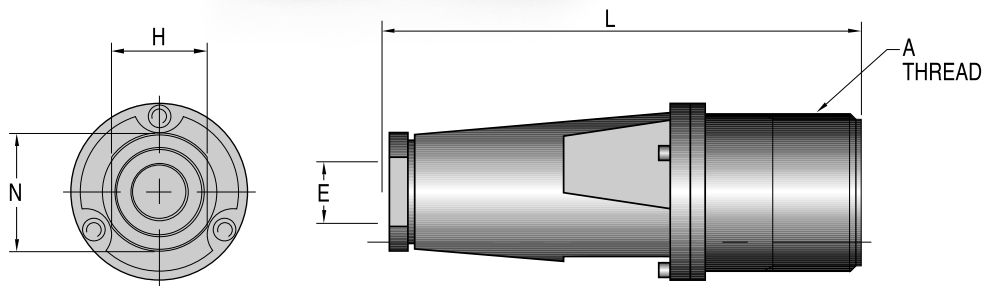
Shell Size	ARRANGEMENT NUMBER	E CABLE RANGE	H +0.001 -0.010	L Max. LENGTH	N Dia. +0.01 -0.020	Q Dia. Max.
28	-02	.969- .844	1.750	8.188	2.000	2.312
	-03	1.130-1.005				
	-04	1.130-1.005				
	-05	1.130-1.005				
32	-08, -12	1.130-1.005	1.750	8.188	2.000	2.562
	-09	1.260-1.135				
	-10	1.260-1.135				
40	-11	1.260-1.135	2.438	8.625	2.750	3.281
	-13	1.609-1.484				
	-15	1.900-1.775				
44	-16	1.844-1.719	2.438	8.625	2.750	3.531
	-12	1.531-1.406				
48	-21	1.969-1.824	2.750	8.984	2.953	3.781
	-25	2.382-2.183				
52	-26	2.250-2.105	2.750	9.047	3.125	4.016
	-12	2.328-2.183				

Inch

All dimensions for reference only.

Protective cover MS90564 is supplied as part of this connector assembly.
Contact brushings MS3348 are supplied as part of connector as required.

● MS90557 Cable connecting receptacle
Without coupling ring



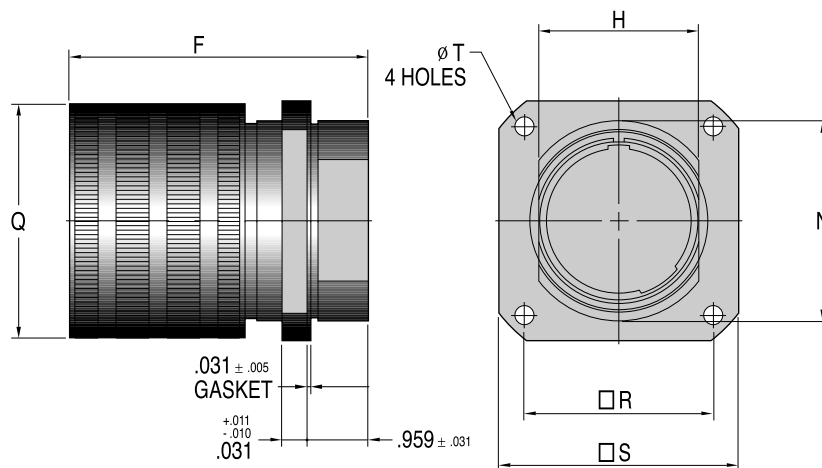
Shell Size	ARRANGEMENT NUMBER	A THREAD CLASS 2A	E CABLE RANGE	H +.001 -.010	L Max. LENGTH	N Dia. +.011 -.020
28	-02	2.000-.1428P-2857L	.969-.844	1.750	8.156	2.000
	-03		1.130-1.005			
	-04		1.130-1.005			
	-05		1.130-1.005			
32	-08, -12	2.250-.1428P-2857L	1.130-1.005	1.750	8.156	2.000
	-09		1.260-1.135			
	-10		1.260-1.135			
	-11		1.260-1.135			
40	-13	2.750-.1428P-2857L	1.609-1.484	2.438	8.594	2.750
	-15		1.900-1.775			
	-16		1.844-1.719			
44	-12	3.000-.1428P-2857L	1.531-1.406	2.438	8.594	2.750
	-21		1.969-1.824			
48	-25	3.250-.1428P-2857L	2.382-2.183	2.750	8.938	2.953
	-26		2.250-2.105			
52	-12	3.500-.1428P-2857L	2.328-2.183	2.750	9.000	3.125

Inch

All dimensions for reference only.

Protective cover MS90563 is supplied as part of this connector assembly.
Contact brushings MS3348 are supplied as part of connector as required.

● MS90558 Wallmount plug with coupling ring(Equipment end)



Shell Size	F +.016 -.000	H +.001 -.010	N Dia. +.011 -.020	Q Dia. Max.	R (BSC)	S +.021 -.020	T ±.005
28	2.639	1.812	2.000	2.312	1.719	2.375	.177
32	2.639	2.062	2.250	2.562	1.906	2.625	.209
40	2.639	2.562	2.875	3.281	2.406	3.125	.281
44	2.639	2.812	3.125	3.531	2.656	3.375	.281
48	2.938	3.062	3.375	3.781	2.906	3.625	.281
52	2.938	3.312	3.625	4.016	3.156	3.875	.281

Inch

All dimensions for reference only.

Protective cover MS90563 is supplied as part of this connector assembly.

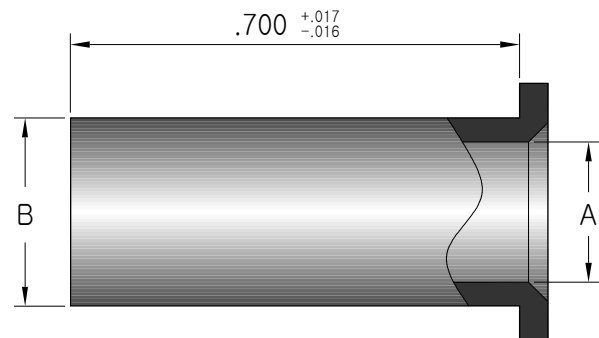
● Accessories

Contacts

Socket MS Part Number	Pin MS Part Number	Contact Size	Wire Well Size
M39029/49-335	M39029/48-327	4/0	4/0
	M39029/48-328	4/0N	4/0
M39029/49-333	M39029/48-323	1/0	1
	M39029/48-324	1/0N	1
M39029/49-331	M39029/48-320	4	4
	M39029/48-321	4N	4
M39029/49-329	M39029/48-317	6	6
	M39029/48-318	6N	6
M39029/49-332	M39029/48-322	4G	4
M39029/49-330	M39029/48-319	6G	6

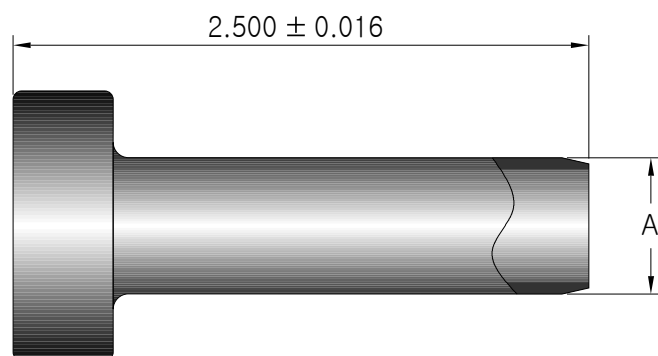
MS3348 Contact bushing

MS Part Number	Contact Wire Barrel Size (Ref)	Wire Size (Ref)	A Dia +.010 -.003	B Dia +.002 -.003
MS3348-1 - 2L	1	2	.359	.396
MS3348-4 - 5L	4	5	.250	.272
MS3348-4 - 6L	4	6	.225	.272
MS3348-6 - 8L	6	8	.185	.225
MS3348-6 - 9L	6	9	.155	.225
MS3348-1 - 6L	1	6	.225	.396
MS3348-4 - 8L	4	8	.185	.272
MS3348-6 - 10L	6	10	.136	.225
MS3348-4/0-2/0L	4/0	2/0	.500	.629



MS90562 Contact removal tool

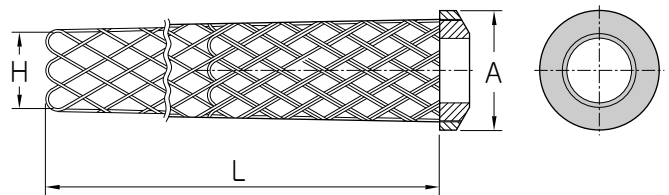
MS Part Number	Contact Size	A Dia +.000 -.002
MS90562-1	4/0	.790
MS90562-2	2/0	.696
MS90562-3	1/0	.558
MS90562-4	2	.462
MS90562-5	4	.376
MS90562-6	6	.354



● Accessories

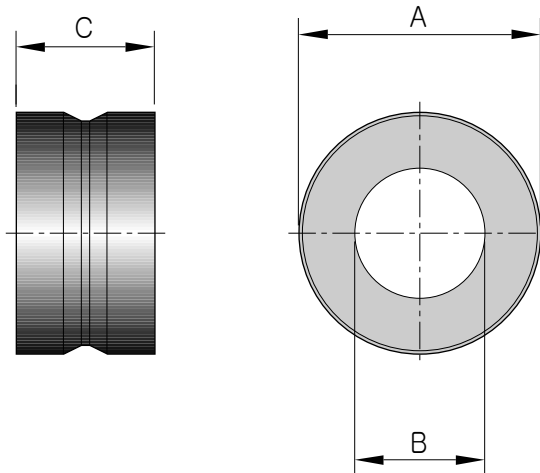
MS90561 Cable strain relief

MS Part Number	Arrangement Number	A Dia +.000 -.010	H Dia Cable Range		B Dia +.002 -.003
			Max	Min	
MS90561-2	28-13, 32-12	1.797	1.145	1.003	1.003
MS90561-4	28-02, -04	1.797	.844	.688	7.500
MS90561-12	28-12	1.797	1.047	.891	8.000
MS90561-13	32-13	1.797	1.342	1.185	9.500
MS90561-15	44-12	2.235	1.516	1.360	11.500
MS90561-16	44-13	2.235	1.688	1.531	13.500
MS90561-17	52-12	2.922	2.328	2.039	18.000
MS90561-18	52-13	2.922	2.500	2.211	19.000
MS90561-19	44-51	2.235	1.750	1.550	12.500
MS90561-20	44-52	2.235	1.578	1.375	12.000
MS90561-21	44-56	2.235	1.160	1.010	8.000



MS23747 Cable sealing gland

MS Part Number	Arrangement Number	A Dia +.000 -.020	B Dia +.020 -.000	C ±.010	M Cable Dia Ref.
MS23747-12	28-12	1.805	1.047	1.034	.922
MS23747-13	32-13	1.805	1.342	1.034	1.217
MS23747-14	44-03	2.242	1.438	1.160	1.313
MS23747-15	44-12	2.242	1.516	1.160	1.391
MS23747-16	44-13	2.242	1.672	1.160	1.547
MS23747-18	52-12	2.927	2.328	1.284	2.183
MS23747-19	52-13	2.927	2.453	1.284	2.308
MS23747-20	44-51	2.242	1.734	1.160	1.609
MS23747-21	44-52	2.242	1.562	1.160	1.437
MS23747-22	44-56	2.242	1.150	1.160	1.025



● Cable strain relief/Cable sealing glan

MS90563 Protective covers

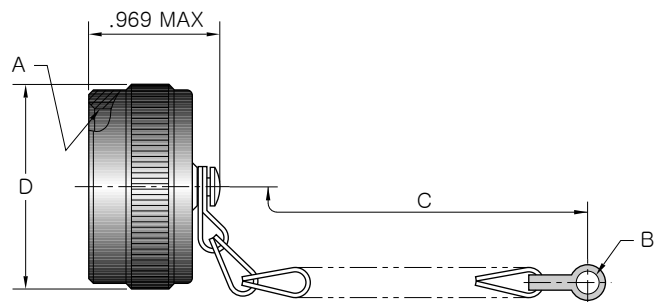
used with : MS90555 Wall mount receptacle

MS90557 Cable connecting receptacle

MS Part Number	Use with Shell size	A Thread Class 2B .1428P-.2857L Double Stub	H Dia		B Dia +.002 -.003
			For MS90555	For MS90557	
MS90563-1()	28	2.000	.177	.177	6.000
MS90563-3()	32	2.250	.209	-	4.500
MS90563-4()	32	2.250	-	.177	6.000
MS90563-7()	44	3.000	.281	.281	7.500
MS90563-11()	52	3.500	.281	.281	7.500

All dimensions for reference only

To complete MS part number, add letter C (Conductive) for AC or N (Non-conductive) for DC connector assemblies.



MS90564 Protective covers

used with : MS90556 Strait plug

MS90558 Wall mount plug

MS Part Number	Use with Shell size	A Thread Class 2A(Plated) .1428P-.2857L Double Stub	B Dia Ref		C Approx	J Max
			For MS90556	For MS90558		
MS90564-1()	28	2.000	.177	.177	7.500	2.266
MS90564-3()	32	2.250	-	.209	6.000	2.266
MS90564-4()	32	2.250	.177	-	7.500	2.266
MS90564-7()	44	3.000	.281	.281	8.500	2.484
MS90564-11()	52	3.500	.281	.281	8.500	2.484

All dimensions for reference only

To complete MS part number, add letter C (Conductive) for AC or N (Non-conductive) for DC connector assemblies.

