



LEX
Connector Solutions

QPL Qualified Product
CATALOG

LexTM3 Heavy Duty Cylindrical Connectors MIL-DTL-22992, CLASS L



LexTM3 Class L Heavy Duty Connectors are ruggedly constructed and tested to stand up to the rigors of unforgiving environments. This class represents the largest size cylindricals, and offer the performance demanded of both industrial and military applications.

The design features of this connector series provide:

- **GREATEST CAPACITY** –
current ranges 40 to 200 amps, conductor sizes 6 to 4/0
- **SAFETY** –
complete protection of personnel and equipment if connectors are inadvertently disconnected under load
- **FOOLPROOF MATING** –
design incorporates specific voltage, current, frequency, phase and grounding requirements
- **STANDARDIZATION** –
MIL-DTL-22992 Class L insert arrangements specify connector/ cable combinations for maximum reliability
- **SERVICEABLE CONTACTS** –
contacts are normally crimped to the cable

LexTM3 design is covered by one or more of the following
U. S. Patent Numbers: 3,023,396; 3,221,292.

LexTM3 Heavy Duty Cylindrical Connectors

MIL-DTL-22992/PROPRIETARY

- High Current Capacity
- Rugged Construction
- Safety
- Serviceability

LexTM3 meets the demands for heavy duty connectors by providing three cylindrical connector series, each with unique design characteristics for reliable operation in specific industrial environments.

CLASS "L" – for the heaviest electrical loads
(Pages 8 – 24)

- Current range from 40 to 200 amperes
- Direct current or single/three phase, 60/400 Hertz alternating current
- Automatic grounding for safety
- MIL-DTL-22992 qualification

QWLD – for most power and control circuits
(Pages 26 – 66)

- Military (MIL-DTL-22992) qualified connectors and industrial equivalents available
- Increased shell size for greater durability than similar standard connectors

QWL – a more compact heavy duty design for industrial power and control applications
(Page 66)

These three series share the following common characteristics which are critical to reliable heavy duty connectors:

- Resistance to the operating environment. Refer to environmental data, below.
- Double stub coupling threads for faster connections; no cross threading, easy cleaning.
- Left hand accessory threads to minimize cable twisting, wire breakage, accidental connector disassembly.
- Gaskets or O-rings at appropriate surfaces for perfect weathertight connections.

LexTM3 heavy duty connectors have been exposed to the following environmental conditions, without compromise of mechanical integrity or degradation of electrical performance.

CONDITION	CONFIGURATION	DESCRIPTION	REFERENCE
Thermal Shock	Unmated	Five complete one hour temperature cycles of –55°C to +125°C	MIL-STD-1344, method 1003, test condition A
Moisture Resistance (Cable mounted connectors)	Mated	Ten complete 24 hour cycles of +25°C to +65°C temperature at 90% to 98% humidity	MIL-STD-202, method 106
Durability	Mated	500 complete mating/unmating cycles	MIL-C-22992
Salt Spray (Corrosion)	Unmated	48 hour exposure to atomized 5% saline solution at +35°C	MIL-STD-1344, method 1001
Vibration	Mated	10 to 55 Hz, .06 inch total excursion in 1 minute cycles for 6 hours, 55 to 2000 Hz, 10G peak amplitude sweep	MIL-STD-1344, method 2005
High Impact	Mated	Nine hammer blows from 1, 3 and 5 feet, three each in three axes on mounting panel	MIL-STD-202, method 207
Heat Rise (Class L only)	Mated	Maximum rated DC current for four hours at +25°C in still air	MIL-DTL-22992
Fluid Immersion	Unmated	20 hours immersion in hydraulic fluid and lubricating oil	MIL-DTL-22992

INTRODUCTION

This catalog presents LexTM3 Heavy Duty Power Connectors covered by MIL-DTL-22992.

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This catalog and other product literature from
LexTM3 can be viewed, saved, and downloaded from our website:

www.LexTM3.com

Due to space limitations, metric equivalents of dimensional
data in this catalog have not been included.

All dimensions given may be converted to the metric
system by the standard formula; $\text{Dimension (inches)} \times 25.40 = \text{dimension (millimeters)}$.

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LexTM3 Heavy Duty Cylindrical Connectors

MIL-DTL-22992, CLASS L

Class L connectors are limited to the specific configurations prescribed by MIL-DTL-22992. This spec is for both military and industrial applications. A rigid configuration is required to ensure proper interconnection of electrical circuits. This configuration places a premium on safety and reliability.

Variable factors include:

Connector shell style and contact type – wall mount and cable connecting receptacles are supplied with socket contacts only and always lead from the power source. Plugs (with coupling rings) have pin contacts only and always lead to the equipment end.

Shell size – the direct relationship of shell size to current carrying capability reduces the possibility of inadequate wiring for heavy electrical loads.[†]

SHELL SIZE	CURRENT RATING (AMPERES)	CONTACT SIZE
28	40	6
32	60	4
44	100	1/0
52	200	4/0

Keyway position – four positions of the main keyway are used to discriminate between the following power sources:

- two wire D.C
- two wire single phase A.C.
- three wire single phase A.C.
- four wire three phase A.C.

Insert rotation – when carrying alternating current (A.C), different angular rotations of the insert within the connector shell are used to distinguish between 60 Hertz and 400 Hertz circuits.

Other outstanding design features:

Arc quenching design – recessed socket contacts within the insert create an arc suppressing chamber which protects the user when connectors are separated under load.

Programmed coupling sequence – grounding and neutral contacts engage before power contacts.

Waterproof design – a unique combination of grommets and seals provides waterproofing in any condition - mated or unmated, capped or uncapped.

Rugged construction – machined from high strength aluminum. Straight-line attachment of accessories eliminates possibility of cable twisting or misalignment.

Accessories – supplied with all Class L connectors as indicated on the individual connector descriptions. Replacement accessories may be ordered separately. See pages 17 through 20.

[†]MIL-C-22992 includes shell size 48, rated at 150 amperes. Consult your local LexTM3 sales representative or LexTM3, Davie, FL for availability.

MIL-DTL-22992, CLASS L

how to order

Connectors are supplied with removable contacts unassembled and applicable accessories as listed in the individual connector style descriptions, pages 13 through 16. Additional/replacement contacts or accessories may be ordered by their MS designations.

Connectors are ordered by MS designation. To illustrate the ordering procedure, part number MS90555 C32412SY is shown as follows:

PART NUMBER						
MS90555	C	32	4	12	S	Y
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 circuits.

		Grounding Assemblies: Finish C						
		SHELL MASTER KEY/KEYWAY POSITION						
		60Hz & 400Hz						
		1 Phase			3 Phase			
Shell Size	Current Rating Amps	2 Wire		3 Wire	3 Wire	4 Wire		
		120 VAC	240 VAC	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 MASTER KEY/KEYWAY POSITION
		60Hz & 400Hz
Shell Size	Current Rating Amps	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.

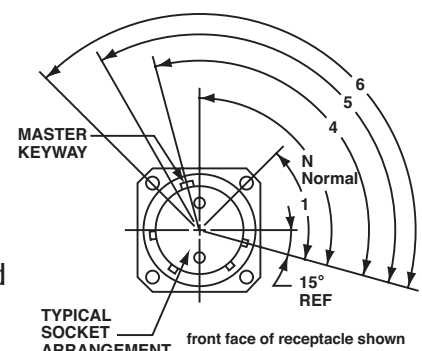
Positions 1, 4, 5 and 6 of the master key/keyway prevent cross-mating of incompatible voltages. Refer to the adjacent illustration.

5. Insert Arrangement – determined by connector size (current carrying capability) and cable configuration to be accommodated. Refer to pages 10 & 11.

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.

MASTER KEY/KEYWAY POSITION

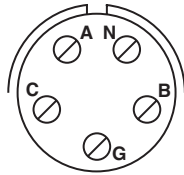


Note that insert arrangement does not rotate with master key/keyway

MIL-DTL-22992, CLASS L

contact arrangements

Shell Size 28, 40 amp rating



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

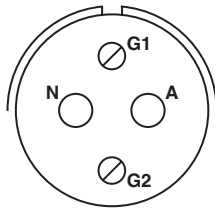
Cable

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

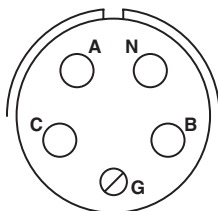
Cable

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

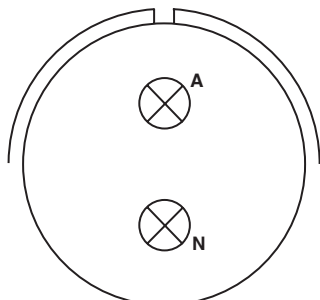
Cable

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
28 Volts DC, 2 wire

Cable

44-02	IPCEA, type W, round, two #2 conductors
28-13	CO-02 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

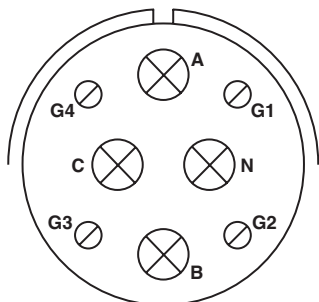
CONTACT LEGEND



MIL-DTL-22992, CLASS L

contact arrangements

Shell Size 44, 100 amp rating



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

Cable

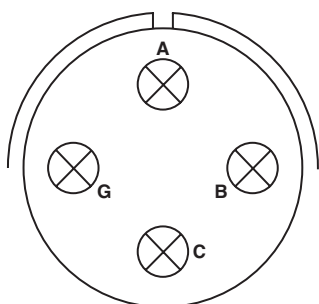
44-12	IPCEA, type G, round, four #2 conductors
44-13	CO-04 HDF, (4/1-4/8R) 1620 per MIL-C-3432

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, 3 wire, grounding

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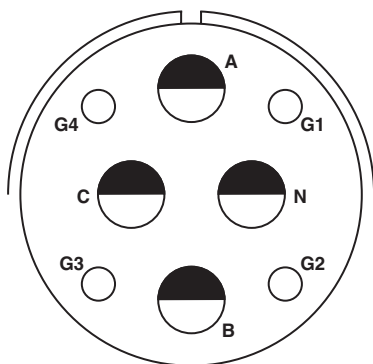
Cable

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 HDE, (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

IPCEA – Insulated Power Cable Engineers Association

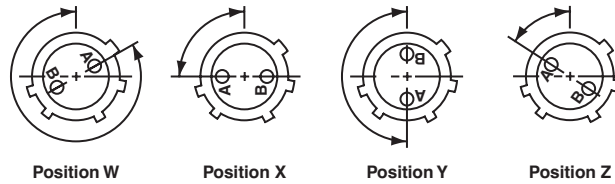


MIL-DTL-22992, CLASS L

alternate insert rotations

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 counter-clockwise direction from the normal shell key. The socket insert would be rotated clockwise the same number of degrees in respect to the normal shell key.

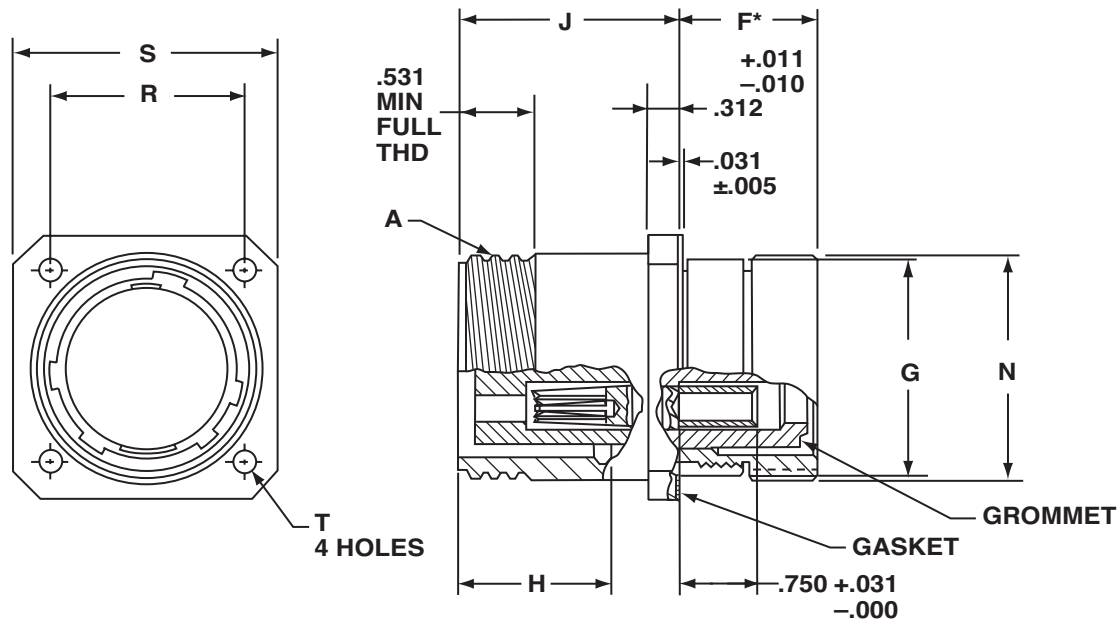


Views looking into front face of pin insert or rear of socket insert.

Insert Arrangements	KEYING POSITION (degrees from normal position)				
	DC or 60 Hz Normal	400 Hz			
		W	X	Y	Z
28-12	0	–	–	180	–
28-13	0	–	–	180	–
32-04	0	–	90	–	–
32-05	0	–	90	–	–
32-12	0	–	–	180	–
32-13	0	–	–	180	–
44-12	0	–	–	–	60
44-13	0	–	–	–	60
44-50	0	–	–	–	–
44-51	0	–	–	–	–
44-52	0	–	–	–	–
44-56	0	–	–	–	–
52-12	0	300	–	–	–
52-13	0	300	–	–	–

MIL-DTL-22992, CLASS L – MS90555

wall mount receptacle (power source)



Shell Size	A Thread Class 2A .1428P-.2857L Double Stub	F* ±.031	G Dia. +.006 -.010	H ±.005	J +.016 -.000	N Dia. +.011 -.020	R (BSC)	S +.021 -.020	T Dia. ±.005
28	2.000	1.376	1.938	1.514	2.188	2.000	1.844	2.375	.177
32	2.250	1.376	2.188	1.514	2.188	2.250	2.062	2.625	.209
44	3.000	1.438	3.062	1.733	2.532	3.125	2.812	3.375	.281
52	3.500	1.438	3.562	1.733	2.532	3.625	3.156	3.875	.281

All dimensions for reference only.

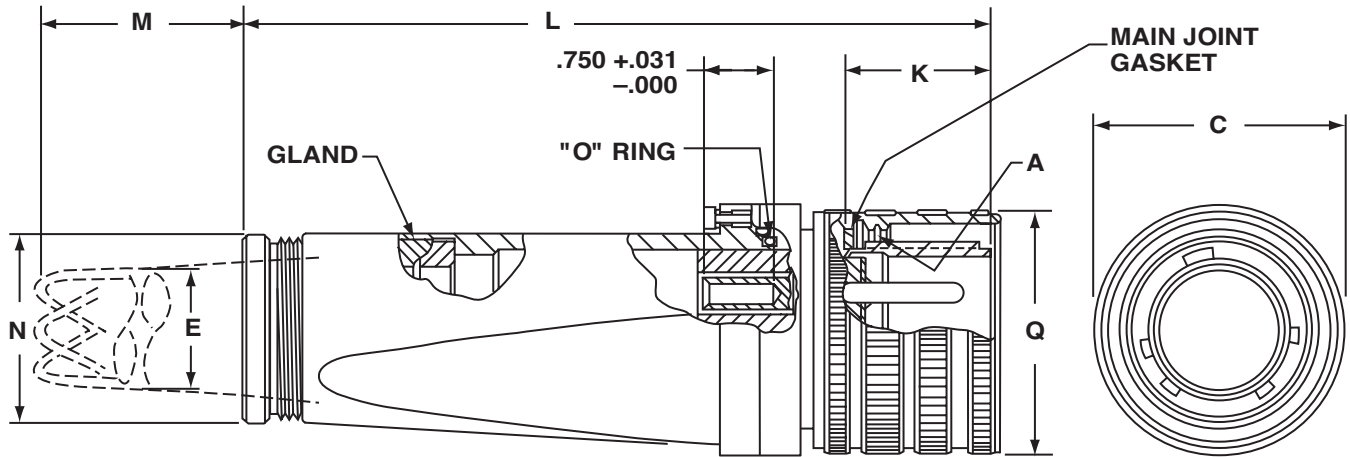
To complete MS Part number see how to order, pg. 9.

Protective cover MS90563 is supplied as part of this connector assembly. Refer to page 20 for dimensions.

*F dimension applies only when rear nut is fully tightened.

MIL-DTL-22992, CLASS L – MS90556

straight plug



Shell Size and Arrangement	A Thread Class 2B .1428P-.2857L Double Stub	C Dia. Max	E Cable Range	K $\pm .005$	L Max Free Length	M Approx. Free Length	N Dia. $+.011$ $-.020$	Q Dia. Max
28-12	2.000	2.439	1.047 – .922	1.557	8.188	7.188	2.000	2.312
28-13			1.130 – 1.005			7.188		
32-04	2.250	2.689	.969 – .844	1.557	8.188	7.188	2.000	2.562
32-05, -12			1.130 – 1.005			7.188		
32-13			1.342 – 1.217			8.688		
44-02	3.000	3.667	1.312 – 1.187	1.776	10.172	10.688	2.500	3.531
44-03			1.438 – 1.313			9.688		
44-12			1.516 – 1.391			10.688		
44-13			1.672 – 1.547			12.688		
44-51	3.000	3.667	1.734 – 1.609	1.776	10.172	11.688	2.500	3.531
44-52			1.525 – 1.435			11.188		
44-56			1.135 – 1.065			7.188		
52-12	3.500	4.167	2.328 – 2.183	1.776	11.109	17.188	3.250	4.016
52-13			2.453 – 2.308			18.188		

All dimensions for reference only.

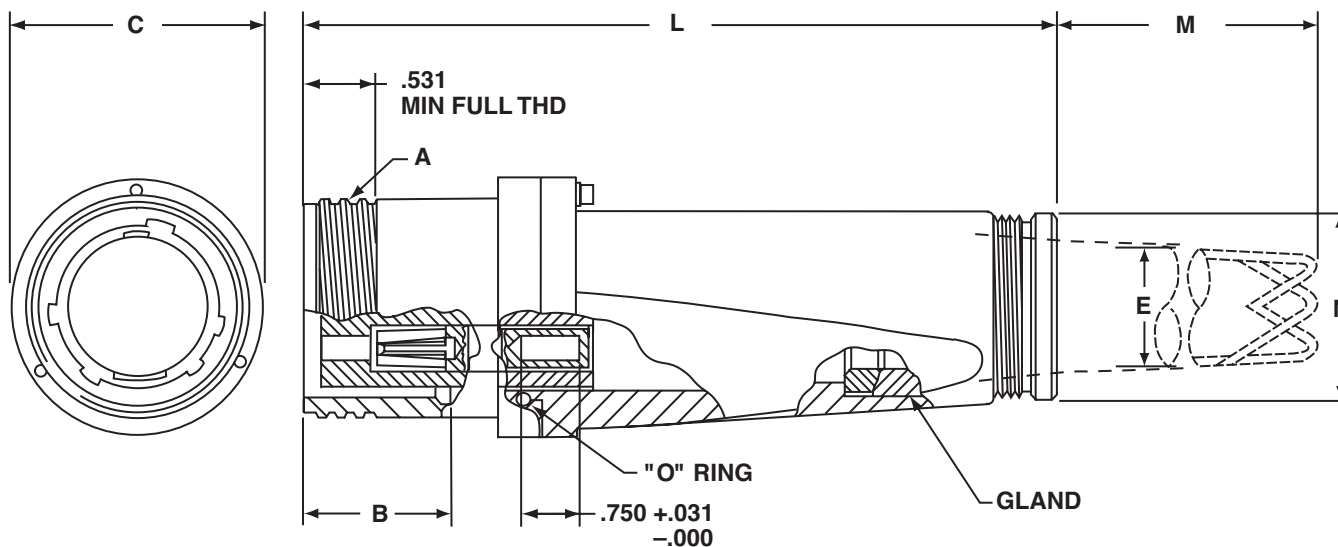
To complete MS Part number see how to order, pg. 9.

Protective cover MS90564 is supplied as part of this connector assembly. Refer to page 20 for dimensions.

Contact brushings MS3348 are supplied as part of connector as required. Refer to page 18 for dimensions.

MIL-DTL-22992, CLASS L – MS90557

cable connecting receptacle without coupling ring



Shell Size and Arrangement	A Thread Class 2B .1428P-.2857L Double Stub	B $\pm .005$	C Dia. Max	E Cable Range	L Max Free Length	M Approx. Free Length	N Dia. $+.011$ $-.020$
28-12	2.000	1.514	2.439	1.047 – .922	8.156	7.188	2.000
28-13				1.130 – 1.005		7.188	
32-04	2.250	1.514	2.689	.969 – .844	8.156	7.188	2.000
32-05, -12				1.130 – 1.005		7.188	
32-13				1.342 – 1.217		8.688	
44-02	3.000	1.733	3.667	1.312 – 1.187	10.125	10.688	2.500
44-03				1.438 – 1.313		9.688	
44-12				1.516 – 1.391		10.688	
44-13				1.672 – 1.547		12.688	
44-51				1.734 – 1.609		11.688	
52-12	3.500	1.733	4.167	2.328 – 2.183	11.062	17.188	3.250
52-13				2.453 – 2.308		18.188	

All dimensions for reference only.

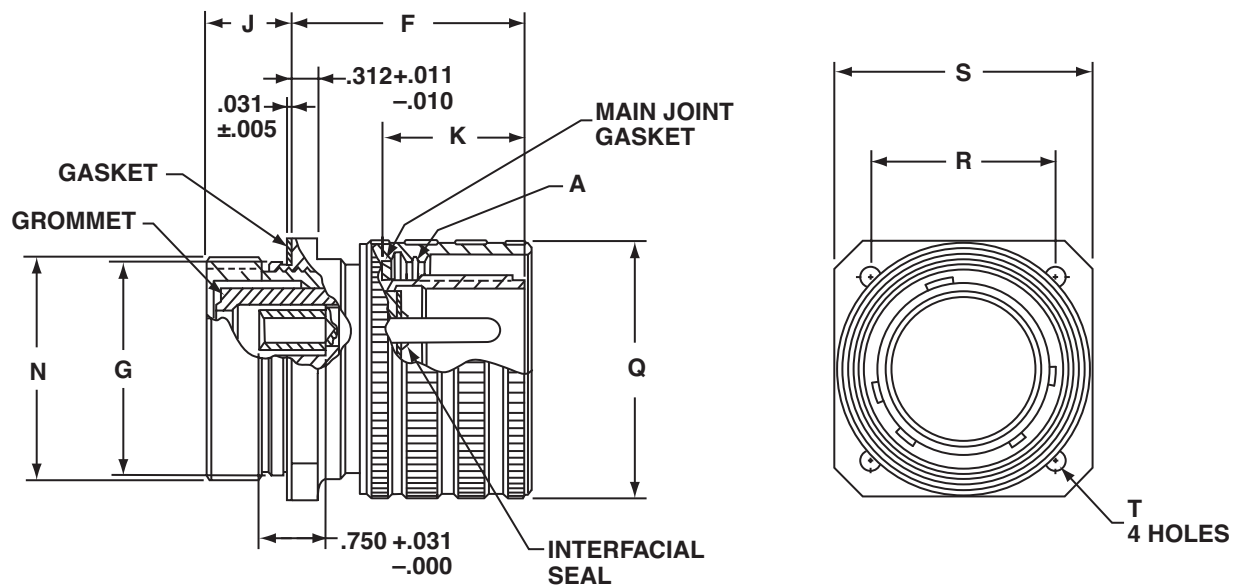
To complete MS Part number see how to order, pg. 9.

Protective cover MS90563 is supplied as part of this connector assembly. Refer to page 20 for dimensions.

Contact bushings MS3348 are supplied as part of connector as required. Refer to page 18 for dimensions.

MIL-DTL-22992, CLASS L – MS90558

wall mount plug with coupling ring (equipment end)



Shell Size	A Thread Class 2A .1428P – .2857L Double Stub	J ±.031	G Dia. +.006 -.010	F* +.016 -.000	K ±.005	N Dia. +.011 -.020	Q Dia. Max	R (BSC)	S +.021 -.020	T Dia. ±.005
28	2.000	.959	1.938	2.639	1.557	2.000	2.312	1.844	2.375	.177
32	2.250	.959	2.188	2.639	1.557	2.250	2.562	2.062	2.625	.209
44	3.000	1.021	3.062	2.998	1.776	3.125	3.531	2.812	3.375	.281
52	3.500	1.021	3.562	2.998	1.776	3.625	4.016	3.156	3.875	.281

All dimensions for reference only.

To complete MS part number see how to order, pg. 9.

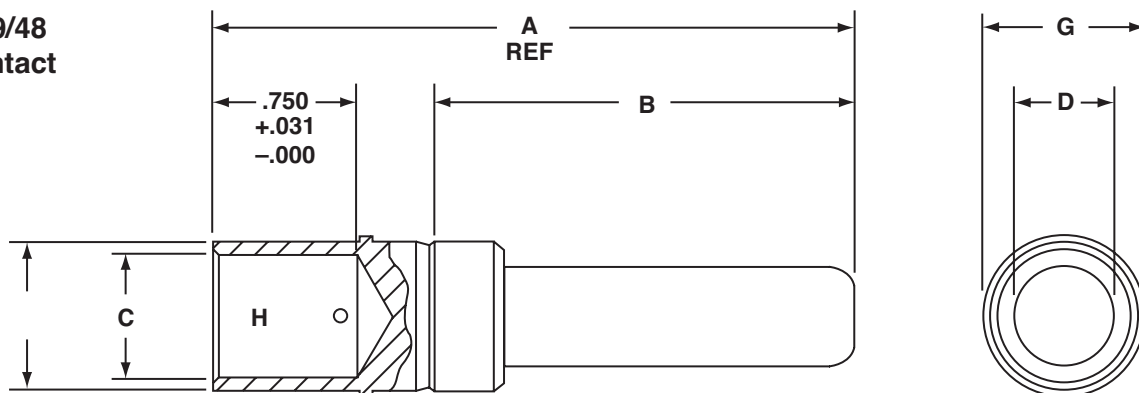
Protective cover MS90564 is supplied as part of this connector assembly. Refer to page 20 for dimensions.

* F dimension applies only when rear nut is fully tightened.

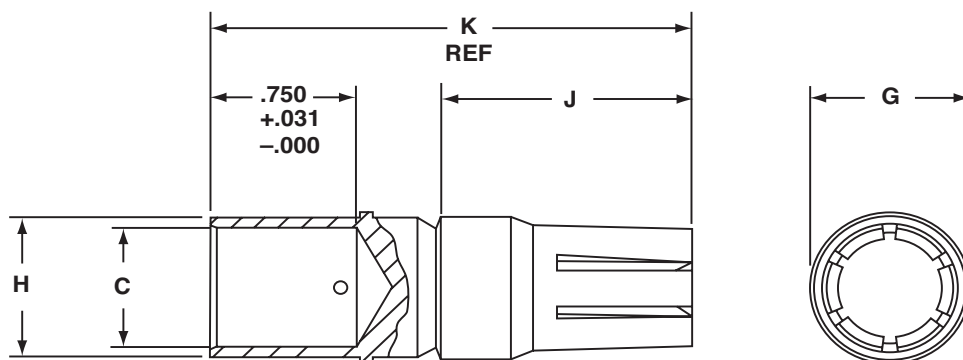
MIL-DTL-22992, CLASS L ACCESSORIES

contacts

**M39029/48
pin contact**



**M39029/49
socket contact**



Socket MS Part Number*	Pin MS Part Number	Contact Size	Wire Well Size	A Ref.	B $\pm .005$	C Dia	D Dia $\pm .001$	G Dia	H Dia	J $\pm .005$	K Ref
M39029/49-335	M39029/48-327	4/0	4/0	3.207	2.097	.641 $^{+.004}_{-.003}$	.500	.781 $\pm .003$	.750 $^{+.004}_{-.003}$	1.283	2.393
—	M39029/48-328	4/0N	4/0	3.325	2.215	.641 $^{+.004}_{-.003}$	.500	.781 $\pm .003$	.750 $^{+.004}_{-.003}$	—	—
M39029/49-333	M39029/48-323	1/0	1	3.207	2.097	.406 $^{+.004}_{-.003}$	.357	.609 $\pm .003$	.506 $^{+.004}_{-.003}$	1.283	2.393
—	M39029/48-324	1/0N	1	3.325	2.215	.406 $^{+.004}_{-.003}$	.357	.609 $\pm .003$	.506 $^{+.004}_{-.003}$	—	—
M39029/49-331	M39029/48-320	4	4	2.786	1.738	.281 $\pm .002$	.225	.417 $\pm .002$	.374 $\pm .002$	1.158	2.206
—	M39029/48-321	4N	4	2.904	1.856	.281 $\pm .002$	.225	.417 $\pm .002$	.374 $\pm .002$	—	—
M39029/49-329	M39029/48-317	6	6	2.786	1.738	.234 $\pm .002$	.178	.342 $\pm .002$	.312 $\pm .002$	1/158	2.206
—	M39029/48-318	6N	6	2.904	1.856	.234 $\pm .002$	.178	.342 $\pm .002$	.312 $\pm .002$	—	—
M39029/49-332	M39029/48-322	4G	4	2.856	1.746	.281 $\pm .002$	.225	.417 $\pm .002$	.374 $\pm .002$	1.752	2.862
M39029/49-330	M39029/48-319	6G	6	2.856	1.746	.234 $\pm .002$	.178	.342 $\pm .002$	.312 $\pm .002$	1.752	2.862

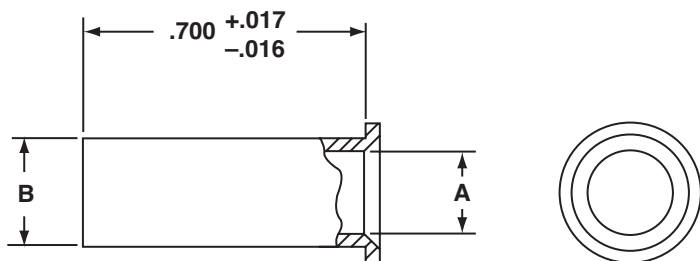
All dimensions for reference only.

*Order by M part number listed for either socket or pin.

MIL-DTL-22992, CLASS L ACCESSORIES

contact bushing / removal tool

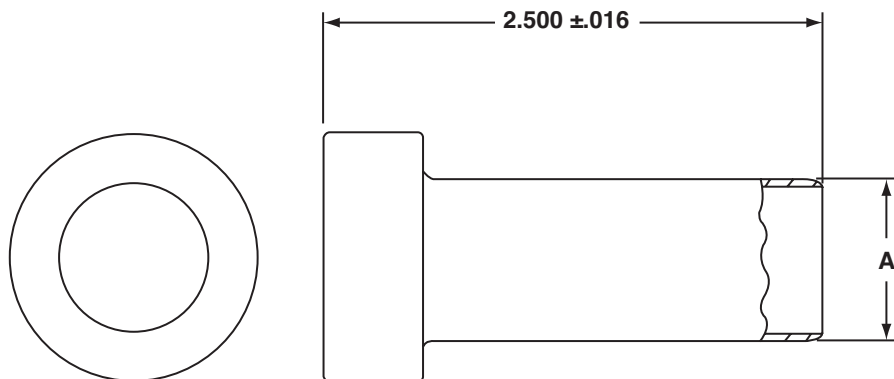
MS3348 CONTACT BUSHING



MS Part Number*	Contact Wire Barrel Size (Ref)	Wire Size (Ref)	A Dia $\begin{smallmatrix} +.010 \\ -.003 \end{smallmatrix}$	B Dia $\begin{smallmatrix} +.002 \\ -.003 \end{smallmatrix}$
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

All dimensions for reference only.
*Order by MS part number listed.

MS90562 CONTACT REMOVAL TOOL



MS Part Number*	Contact Wire Barrel Size (Ref)	A Dia $\begin{smallmatrix} +.000 \\ -.002 \end{smallmatrix}$
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

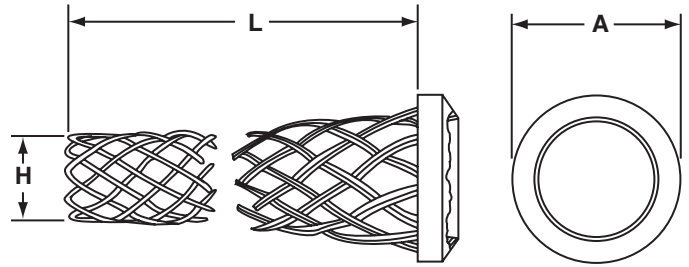
All dimensions for reference only.
*Order by MS part number listed.

MIL-DTL-22992, CLASS L ACCESSORIES

cable strain relief / cable sealing gland

MS90561 CABLE STRAIN RELIEF

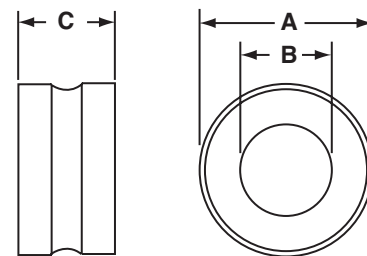
MS Part Number*	Arrangement Number	A Dia +.000 -.010	H Dia Cable Range		L Approx.
			Max	Min	
MS90561-2	28-13, 32-12	1.797	1.145	1.003	8.000
MS90561-4	28-02, -04	1.797	.844	.688	7.500
MS90561-12	28-12	1.797	1.047	.891	8.000
MS90561-13	32-13	1.797	1.342	1.185	9.500
MS90561-15	44-12	2.235	1.516	1.360	11.500
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



All dimensions for reference only.
*Order by MS part number listed.

MS23747 CABLE SEALING GLAND

MS Part Number*	Arrangement Number	A Dia +.000 -.020	B Dia +.020 -.000	C ±.010	Min Cable Dia Ref.
MS23747-2	28-13, 32-05, -12	1.805	1.130	1.034	1.005
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



This gland must be used with MS90561 strain relief.

All dimensions for reference only.
*Order by MS part number listed.

MIL-DTL-22992, CLASS L ACCESSORIES

protective covers

MS90563 PROTECTIVE COVERS

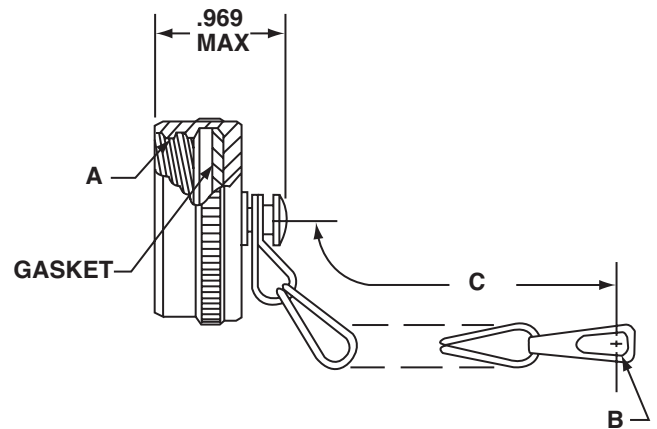
used with: MS90555 wall mount receptacle

MS90557 cable connecting receptacle

MS Part Number*	Use with Shell Size	A Thread Class 2B .1428P-.2857L Double Stub	B Dia Ref		C Approx.
			For MS90555	For MS90557	
MS90563-1()	28	2.000	.190	.190	6.000
MS90563-3()	32	2.250	.190	—	4.500
MS90563-4()	32	2.250	—	.190	6.000
MS90563-7()	44	3.000	.265	.265	7.500
MS90563-11()	52	3.500	.265	.265	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

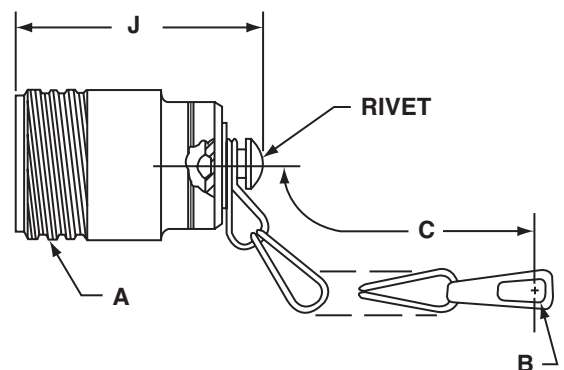
used with: MS90556 straight plug

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	.190	.190	7.500	2.266
MS90564-3()	32	2.250	—	.190	6.000	2.266
MS90564-4()	32	2.250	.190	—	7.500	2.266
MS90564-7()	44	3.000	.265	.265	8.500	2.484
MS90564-11()	52	3.500	.265	.265	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.



MIL-DTL-22992, CLASS L

installation instructions

Reproduced below are condensed assembly instructions to familiarize the user with the installation procedure and tooling required.

Cable Preparation (MS90556 and MS90557 connectors only) The following table shows the standard wire color coding, generator terminal markings, and connector contact identification used with Class L connectors.

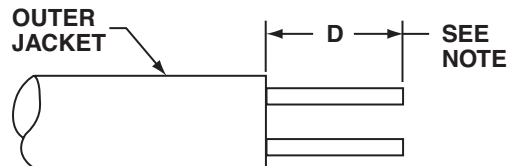
Standardized Generator Wiring and Connections

GENERATOR TERMINAL MARKING	CURRENT	CONTACT DESIGNATION	CONDUCTOR CIRCUIT	WIRE COLOR
+ (POS)	28Vdc	A	Positive	Black
– (NEG) ground	28Vdc	N	Negative	White
L1	AC	A	Phase A	Black
L2	AC	B	Phase B	Red
L3	AC	C	Phase C	Blue (Commercial may be orange)
L0	AC	N	Neutral	White
G (or Gnd)	AC	G	Safety grounding	Green (Commercial may be bare)

Step 1) Determine cable lay to facilitate alignment of contacts and insert holes without wire crossing.

Step 2) Strip cable jacket to dimension shown. Avoid cutting or nicking individual conductor insulation.

CONNECTOR SIZE	D INCHES APPROX.
28	3.000
32	3.000
44	4.250
52	5.000



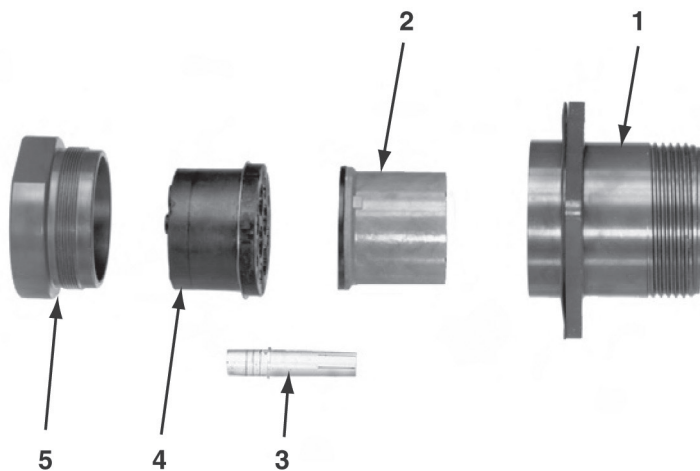
Note: Some insert arrangements require that two or more ground wires be terminated into one contact. Dimension D must therefore be increased to permit routing these wires around the larger conductors.

Step 3) Install connector components in the order shown in the applicable assembly view illustrated on pages 22 & 23.

Step 4) Strip insulation of individual conductors to $\frac{3}{4}$ inch from end of conductor.

MIL-DTL-22992, CLASS L

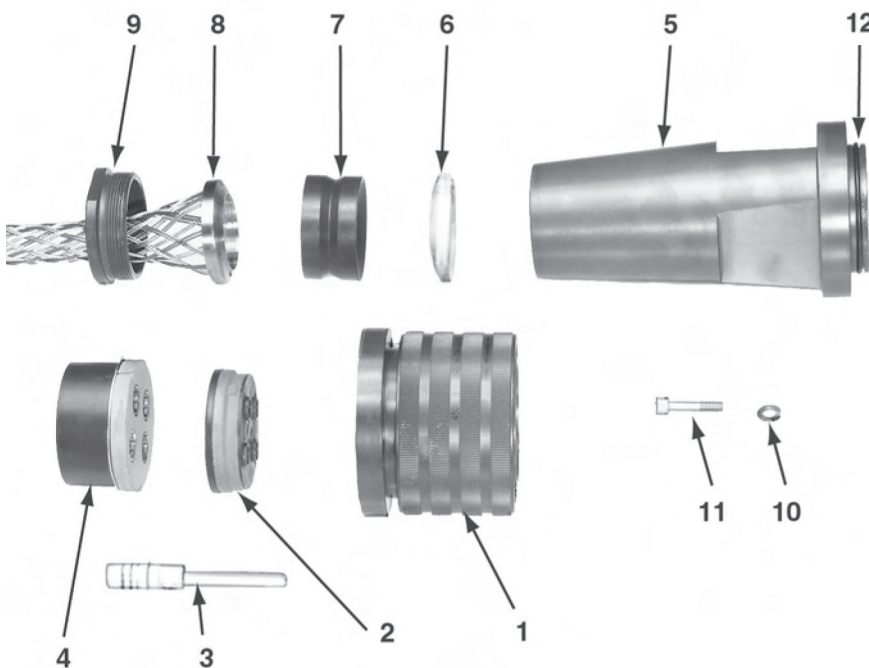
installation instructions



MS90555 CONNECTOR

Wall Mount Receptacle Components:

1. Shell
2. Insert Assembly, Socket
3. Contact, Socket
4. Grommet Assembly, Socket
5. Nut, Retaining
6. Protective Cap Assembly (Not Shown)
7. Flange Gasket (Not Shown)



MS90556 CONNECTOR

Straight Plug Components:

1. Shell and Coupling Nut Assembly
2. Insert Assembly, Pin
3. Contact, Pin
4. Spacer Assembly, Pin
5. Back Adapter
6. Gland Washer
7. Gland
8. Cable Grip
9. Gland Nut
10. Lockwasher (3 each)
11. Screw (3 each)
12. O-Ring
13. Protective Cap Assembly (Not Shown)

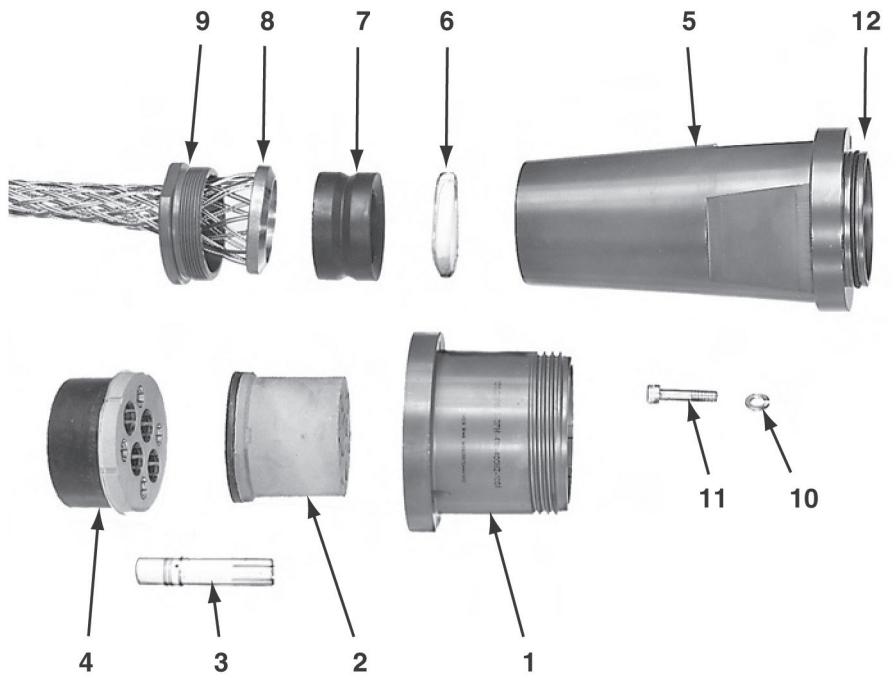
MIL-DTL-22992, CLASS L

installation instructions

MS90557 CONNECTOR

Cable Connecting Receptacle Components:

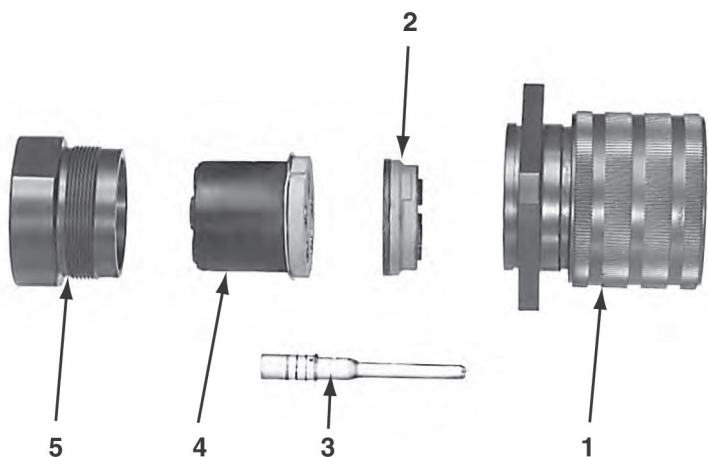
1. Shell
2. Insert Assembly, Socket
3. Contact, Socket
4. Spacer Assembly, Socket
5. Back Adapter
6. Gland Washer
7. Gland
8. Cable Grip
9. Gland Nut
10. Lockwasher (3 each)
11. Screw (3 each)
12. O-Ring
13. Protective Cap Assembly (Not Shown)



MS90558 CONNECTOR

Wall Mount Plug Components:

1. Shell and Coupling Nut Assembly
2. Insert Assembly, Pin
3. Contact, Pin
4. Grommet Assembly, Pin
5. Nut, Retaining
6. Protective Cap Assembly (Not Shown)
7. Flange Gasket (Not Shown)



MIL-DTL-22992, CLASS L

installation instructions

INSTALLING CONTACTS

Step 1) Strip conductors and insert them into the contact wirewell. In cases where a contact bushing is used, first insert the conductor into the bushing, then insert the bushing into the contact wirewell. If your installation requires inserting two or more ground wires, ensure that all of the wires are fully seated in the wirewell.

Step 2) Referring to the table at the right and identifying the contacts to be installed, choose the appropriate crimping tool, locator and die combination. Then insert the contact into the tool with the conductor or bushing in place.

Contact Part Number	Size	Type	Crimping Tool*	Locator*	Die*	Removal Tool
M39029/48-327 M39029/49-335 M39029/48-328	4/0 4/0 4/0N	P S P	Pico Model 400B or 400B-1	4297-1	414DA-4/0N-1	MS90562-1
M39029/48-323 M39029/49-333 M39029/48-324	1/0 1/0 1/0N	P S P	Pico Model 400B or 400B-1	4297-3	414DA-1/0N	MS90562-3
M39029/48-320 M39029/49-331 M39029/48-321 M39029/48-322 M39029/49-332	4 4 4N 4G 4G	P S P P S	Pico Model 400B or 400B-1	4297-5	414DA-4N	MS90562-5
M39029/48-317 M39029/49-329 M39029/48-318 M39029/48-319 M39029/49-330	6 6 6N 6G 6G	P S P P S	Pico Model 400B or 400B-1	4297-6	414DA-6N	MS90562-6

Soldering Notes:

A uniform crimp is attained by fully crimping the die. When crimping tools are not available, you may solder contacts to conductors. We recommend rosin-alcohol solder flux, 60/40 solder (good grade) and a 500-watt soldering iron of probe-type resistance tool. Pre-tinning conductors is recommended. Please remove any solder from contact shoulder or retention area.

ASSEMBLING CONNECTORS

Step 1) Check inserts for positioning in the connector shell. After aligning the large tab on the insert with the large slot in the shell, press the insert into place until it settles into the bottom of the shell.

Step 2) Use Dow Corning DC-4 lubricant (thin coating), on the periphery of the contact holes in the spacer or grommet assembly. Press contacts into the rear of the spacer/grommet assembly. This assembly should lock in to the contact retainer bushing.

Step 3) Align the contacts and holes within assembly, making sure to align the small key insert with the correct spacer/grommet assembly. Next, slide the contacts into the insert holes until the assembly is seated against the insert. Again we recommend a thin layer of Dow Corning DC-4 lubricant along the edge of the contact holes for maximum sealing.

Step 4) Accessories may now be joined to the connector. We recommend a thin application of Dow Corning DC-4 lubricant for the back adapter O-ring. The gland (outer surfaces only!) requires a thin layer of UniTemp Grease EP. Caution: Do not allow grease to come in contact with inside gland surfaces or cable jacket.

Step 5) You may now tighten the retaining or gland nut on the shell or adapter. While metal-to-metal seating is preferred, the largest cable diameters may not allow this degree of seating.

REMOVING CONTACTS

Step 1) Loosen all of the rear assemblies, then slide them back along the cable.

Step 2) Detach the spacer/grommet assembly (and contacts) from the connector insert.

Step 3) Select the appropriately sized contact removal tool. Push the tool over the front of the contact, until it finds the bottom of the spacer/grommet hole. This enables you to open the contact retaining bushing, which, in turn, allows the removal of the contact from the spacer/grommet assembly. Special note: When jacketed cables are present, first release all contacts from the contact retention bushings, prior to removing them from the spacer/grommet assembly.

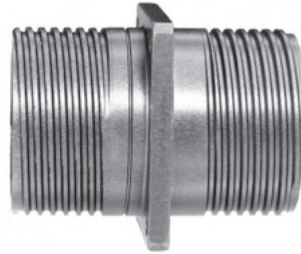


LexTM3 Heavy Duty Cylindrical Connectors

MIL-DTL-22992, QWLD



wall mount receptacle



thru bulkhead receptacle



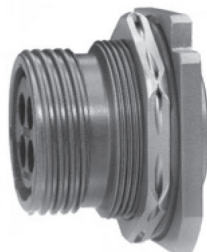
cable connecting plug



straight plug



box mount receptacle



jam nut receptacle
(box mount)



jam nut receptacle
(wall mount)

LexTM3 QWLD Series Heavy Duty cylindrical connectors have been designed to reliably deliver power and control in environments unsuitable for less rugged products.

These connector products include the following features:

- Incredible Strength – water and explosion proof, resistant to abrasion, corrosion, vibration and shock
- Fast, Positive Mating – double stub threads per MIL-STD-1373 for fast coupling, simple cleaning
- Choice – over 300 industrial and MS approved insert patterns available, including coaxial and thermocouple

These circumstances are typical of the severe conditions under which thousands of LexTM3 QWLD connectors are operating every day. Design features that make these cylindricals a necessity for difficult environments include:

- Alumilite 225* hard anodic finish for abrasion and corrosion resistance or conductive cadmium plate
- Resilient inserts for moisture sealing, positive proof against shock and vibration
- Sealing gaskets at every joint for waterproof assembly
- Cable strain relief provided by clamp bar type accessories
- Left hand accessory threads to prevent damage from disconnect torque applied in the wrong direction
- Closed entry socket contact design in solder or replaceable crimp contacts

*Registered trademark of Aluminum Company of America

MIL-DTL-22992, QWLD

how to order

MS-APPROVED CONNECTORS

To illustrate the ordering procedure, part number

MS17343R20N27PW is shown as follows:

PART NUMBER						
MS17343	R	20	N	27	P	W
1	2	3	4	5	6	7

1. MS Number –

MS17343	designates wall mount receptacle
MS17344	designates straight plug
MS17345	designates cable connecting plug
MS17346	designates box mount receptacle
MS17347	designates jam nut receptacle with rear accessory threads (wall mount)
MS17348	designates jam nut receptacle (box mount)

2. Class –

C designates pressurized – used where circuit integrity is protected by a pressure differential
R designates environmental

3. **Shell Size** – available in shell sizes 12 through 44. Refer to pages 44 through 50 for dimensional data.

4. **Shell Finish** – C for conductive or N for non-conductive

5. **Insert Arrangement** – current MS insert arrangements are shown in black in the QWLD insert arrangements section of this catalog. Only these arrangements are available in MS-approved connectors.

6. **Contact Type** – P for pin, S for socket.

7. **Alternate Insert Rotation** – used to prevent cross-mating of connectors. Absence of a letter in this space indicates normal (0°) position of the insert. Refer to page 31 for alternate insert rotation illustrations.

MIL-DTL-22992, QWLD

insert arrangements

Insert Arrangement				Contact Size					
MS Approved	Industrial	Service Rating	Total Contacts	0	4	8	12	16	
12-5		D	1				1		
	12-48	A	3					3	
	12-49	A	2					2	
14-3		A	1			1			
	14-53	Inst.	6					6	
16-2		E	1				1		
16-7		A	3			1		2	
16-9		A	4				2	2	
16-10		A	3				3		
16-11		A	2				2		
16-12		A	1		1				
16-13		A	2				2		
	16-61	A	7				7		
18-1		B, C, F, G = A; Bal. = Inst.	10					10	
	18-3	D	2				2		
18-4		D	4					4	
18-5		D	3				2	1	
18-6		D	1		1				
18-7		B	1			1			
18-8		A	8				1	7	
18-9		Inst.	7				2	5	
	18-10	A	4				4		
18-11		A	5				5		
	18-12	A	6					6	
18-13		A	4			1	3		
18-14		A	2		1			1	
18-15		A	4				4		
18-16		C	1				1		
	18-17	Inst.	7				2	5	
	18-19	A	10					10	
	18-20	A	5					5	
	18-22	D	3					3	
	18-24	B, C, F, G = A; Bal. = Inst.	10					10	
	18-29	A	5					5	
	18-30	A	5					5	
	18-31	A	5					5	
20-2		D	1	1					
	20-3	D	3				3		
20-4		D	4				4		
	20-6	D	3					3	
20-7		A, B, H, G = D; C, D, E, F = A	8					8	
20-8		Inst.	6			2		4	

Insert Arrangement				Contact Size					
MS Approved	Industrial	Service Rating	Total Contacts	0	4	8	12	16	
20-9		H = D; Bal. = A	8				1	7	
	20-11	Inst.	13					13	
	20-12	A	2		1			1	
20-14		A	5			2	3		
20-15		A	7				7		
20-16		A	9				2	7	
20-17		A	6				5	1	
20-18		A	9				3	6	
	20-19	A	3			3			
	20-20	A	4		1		3		
20-21		A	9				1	8	
20-22		A	6			3		3	
	20-23	A	2			2			
20-24		A	4			2		2	
	20-25	Inst.	13					13	
20-27		A	14					14	
20-29		A	17				2	17	
	20-30	Inst.	13					13	
20-33		A	11					11	
	22-1	D	2			2			
22-2		D	3			3			
	22-4	A	4			2	2		
22-5		D	6				2	4	
	22-6	D	3			2		1	
22-7		E	1	1					
	22-8	E	2				2		
22-9		E	3				3		
22-10		E	4					4	
22-11		B	2					2	
22-12		D	5			2		3	
	22-13	E = D; A, B, C, D = A	5				4	1	
22-14		A	19					19	
22-15		D = E; A, B, C, E, F = A	6				5	1	
	22-16	A	9				3	6	
22-17		A = D; Bal. = A	9				1	8	
22-18		A, B, F, G, H = D; C, D, E = A	8					8	
22-19		A	14					14	
	22-20	A	9					9	
22-21		A	3	1				2	
22-22		A	4			4			
22-23		H = D; Bal. = A	8				8		
	22-24	C, D, E = D; A, B, F = A	6				2	4	

MIL-DTL-22992, QWLD

insert arrangements

Insert Arrangement				Contact Size					
MS Approved	Industrial	Service Rating	Total Contacts	0	4	8	12	16	
22-7		J = D; Bal. = A	9			1		8	
	22-28	A	7				7		
	22-33	A, B, C, D = D; E, F, G = A	7					7	
	22-34	D	5				3	2	
22-36		H = D; Bal. = A	8				8		
24-2		D	7				7		
	24-3	D	7				2	5	
	24-5	A	16					16	
24-6		A, G, H = D; Bal. = A	8				8		
24-7		A	16				2	14	
	24-9	A	2		2				
24-10		A	7			7			
24-11		A	9			3	6		
24-12		A	5		2		3		
24-16		A, B, F, G = D; C, D, E = A	7			1	3	3	
	24-17	D	5				2	3	
24-20		D	11				2	9	
24-21		D	10			1		9	
24-22		D	4			4			
24-27		E	7					7	
24-28		Inst.	24					24	
28-1		A, J, E = D; Bal. = A	9			3	6		
28-2		D	14				2	12	
28-3		E	3			3			
28-4		G, P, S = E; Bal. = D	9				2	7	
28-5		D	5		2		1	2	
	28-6	D	3		3				
	28-7	D	2		2				
28-8		L, M = E; B = D; Bal. = A	12				2	10	
28-9		D	12				6	6	
28-10		G = D; Bal. = A	7		2	2	3		
28-11		A	22				4	18	
28-12		A	26					26	
	28-13	A	26					26	
28-15		A	35					35	
	28-16	A	20					20	
28-17		R = B; M, N, P = D; A to L = A	15					15	
28-18		M = C; G, H, J, K, L = D; A, B = H; Bal. = Inst.	12					12	
28-19		H, M = B; A, B = D; Bal. = A	10				4	6	
28-20		A	14				10	4	

Insert Arrangement				Contact Size					
MS Approved	Industrial	Service Rating	Total Contacts	0	4	8	12	16	
28-21		A	37					37	
28-22		D	6		3			3	
32-1		A = E; Bal. = D	5	2			3		
32-2		E	5		3			2	
32-3		D	9	1	2		2	4	
	32-4	F, J, K, N = A; Bal. = D	14				2	12	
	32-5	D	2	2					
32-6		A	23		2	3	2	16	
32-7		A, B, H, J = Inst.; Bal. = A	35				7	28	
	32-8	A	30				6	24	
32-9		D	14		2			12	
	32-10	A, F = E; G = B; B, E = D; C, D = A	7		2	2		3	
	32-12	C, D, E, F, G = A; Bal. = D	15				5	10	
32-13		D	23				5	18	
32-15		D	8	2			6		
	32-16	A	23		2	3	2	16	
32-17		D	4		4				
32-73		A	46					46	
	36-1	D	22				4	18	
36-3		D	6	3			3		
	36-4	A = D; B, C = A	3	3					
36-5		A	4	4					
36-6		A	6	2	4				
36-7		A	47				7	40	
36-8		A	47				1	46	
36-9		A	31		1	2	14	14	
36-10		A	48					48	
	36-11	A	48					48	
	36-12	A	48					48	
	36-13	N, P, Q = E; Bal. = A	17				2	15	
	36-14	D	16			5	5	6	
36-15		M = D; Bal. = A	35					35	
	36-16	A	47				7	40	
	36-17	A	47				7	40	
	36-18	A	31		1	2	14	14	
	36-20	A	34			2	2	30	
36-52		A	52					52	
40-1		D	30				6	24	
40-9		A	47			1	22	24	
40-56		A	85					85	
40-52		A	104					104	

Insert Arrangement	Service Rating	Total Contacts	Contact Size									
			0	4	8	12	16	Coax**				
								0	4	8	12	
16-59	A	4				4						
20-51	A	3			3							
20-57	A	7				7*						
20-58	A	10				5	5					
20-59	A	3			3*							
20-66	A	6				5*	1					
20-79	A/D	8				1	7					
22-63	A	12				4	8t					
22-65	A/D	8				8*						
22-70	A	13				8	5					
22-80	A	3			3*							
24-51	A	5			5							
24-52	Hi Volt.	1				1						
24-53	A	5			5							
24-58	A	13			3	3	7					
24-59	A	14				7	7					
24-60	A	7			7*							
24-65	A	15				11	4					
24-66	D	7				7						
24-67	Inst.	19				19						
24-71	A	7			7*							
24-75	A	7			7*							
24-79	A	5			5							
24-80	Inst.	23					23					
24-84	A	19				1						18
28-51	A	12				12						
28-59	A	17				7	10					
28-66	A	16			2	14						
28-72	Coax	3							3			
28-74	A	16			7*		9					
28-75	A	16			7*		9					
28-79	A	16			7		9					
28-82	D	6			2	4						
28-84	A	9			9							
32-52	D	8	2			6						
32-53	Inst./E	42				5	37					
32-56	A	30				6*	24					
32-57	Coax	8				6		2				
32-58	Coax	4							4			
32-60	A	23					15			8		
32-62	Coax	23		2	1	2	16			2		
32-64	Inst.	54					54					
32-68	A	16					12		4			
32-75	Coax	9				2				7		
32-76	A	19				19						
32-79	D	5		4	1							

* Crimp contacts accommodate wire the same size as the contact as well as wire of the next smaller, even size. Arrangements identified with an asterisk (*) are exceptions.
See insert arrangement drawings on pages 39-47 for application wire size.

Insert Arrangement	Service Rating	Total Contacts	Contact Size									
			0	4	8	12	16	Coax**				
								0	4	8	12	
36-51	D	4	2	2								
36-54	A	39			8		31					
36-55	A	39			8*		31					
36-59	A	53				3*	50					
36-60	A	47				7*	40					
36-64	Coax	4						4				
36-65	Coax	4						4				
36-71	A	53				3	50					
36-73	Coax	7							7			
36-74	A	44					43			1		
36-75	A	48					48*					
36-76	A	47					47					
36-77	D	7		7								
36-78	A	14			12		2					
36-79	A	20				20						
36-80	A	20				20*						
36-83	Coax	7							7			
36-85	A/D	35					35*					
40-53	A	60					60					
40-57	E	4	4									
40-61	A	59			1	3	55					
40-62	A	60					60					
40-63	A	61					61*					
40-64	Coax	36				3	20			13		
40-66	Coax	4						4				
40-67	A	11					1		10			
40-68	A	21			21							
40-70	A	61					61					
40-72	A	11					1		10			
40-73	A	61					61					
40-74	A	6				1		4	1			
40-75	E	5	4			1						
40-80	A	11		10			1					
40-81	A	62					62*					
40-82	A	62					62					
40-85	A	60					60*					
40-86	A	4						4				
40-87	E	7		7								
44-53	A	36					18			18		
48-51†	A	56			10		42	4				
48-52†	A	61					56	5				
48-53†	D	37				37						
48-54†	A	56			10		42	4				
48-55†	A	78		6	2	2	68					
48-57†	A	56	4		10		42					
48-60†	A	56			10		42					

** Coaxial cable data can be found on insert arrangement drawings, pages 39-47. For further information on coaxial contacts and cable see catalog 12-130.

† Consult LexTM3 for availability

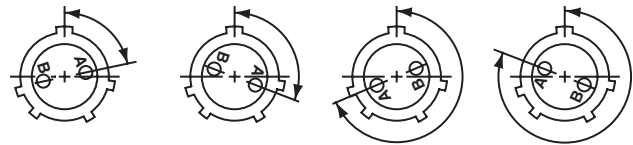
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alternate insert rotations

Some installations require more than one connector of the same size and arrangement. In these installations, cross-plugging problems can be avoided by using alternate insert rotations. They are detailed in the charts on this page.

Sample Rotation Positions

The diagrams show how the front face of the pin insert is rotated: within the shell – clockwise direction from the normal shell key; socket insert – counter-clockwise by the same degrees per normal shell key.



Position W

Position X

Position Y

Position Z

Views looking into front face of pin insert or rear of socket insert.

Insert Arrangement	DEGREES			
	W	X	Y	Z
16-7	80	110	250	280
16-9	35	110	250	325
16-10	90	180	270	–
16-11	35	110	250	325
16-13	35	110	250	325
16-61	80	–	–	280
18-1	70	145	215	290
18-3	35	110	250	325
18-4	35	110	250	325
18-5	80	110	250	280
18-8	70	–	–	290
18-9	80	110	250	280
18-10	–	120	240	–
18-11	–	170	265	–
18-12	80	–	–	280
18-13	80	110	250	280
18-14	80	110	250	280
18-15	–	120	240	–
18-19	–	120	240	–
18-20	90	180	270	–
18-22	70	145	215	290
18-29	90	180	270	–
20-3	70	145	215	290
20-4	45	110	250	–
20-5	35	110	250	325
20-6	70	145	215	290
20-7	80	110	250	280
20-8	80	110	250	280
20-9	80	110	250	280
20-12	80	110	250	280
20-14	80	110	250	280
20-15	80	–	–	280
20-16	80	110	250	280
20-17	90	180	270	–
20-18	35	110	250	325
20-19	90	180	270	–
20-20	80	110	250	280
20-21	35	110	250	325
20-22	80	110	250	280
20-23	35	110	250	325
20-24	35	110	250	325
20-27	35	110	250	325
20-29	80	–	–	280
22-1	35	110	250	325
22-2	70	145	215	290
22-3	80	110	250	280
22-4	35	110	250	325

Insert Arrangement	DEGREES			
	W	X	Y	Z
22-5	35	110	250	325
22-6	80	110	250	280
22-8	35	110	250	325
22-9	70	145	215	290
22-10	35	110	250	325
22-11	35	110	250	325
22-12	80	110	250	280
22-13	35	110	250	325
22-14	80	110	250	280
22-15	80	110	250	280
22-16	80	110	250	280
22-17	80	110	250	280
22-18	80	110	250	280
22-19	80	110	250	280
22-20	35	110	250	325
22-21	80	110	250	280
22-22	–	110	250	–
22-23	35	–	250	–
22-24	80	110	250	280
22-25	80	110	250	280
22-27	80	–	250	280
22-28	80	–	–	280
22-33	80	110	250	280
22-34	80	110	250	280
22-36	90	–	270	–
24-2	80	–	–	280
24-3	80	110	250	280
24-4	80	110	250	280
24-5	80	110	250	280
24-6	80	110	250	280
24-7	80	110	250	280
24-9	35	110	250	325
24-10	80	–	–	280
24-11	35	110	250	325
24-12	80	110	250	280
24-16	80	110	250	280
24-17	80	110	250	280
24-20	80	110	250	280
24-21	80	110	250	280
24-22	45	110	250	–
24-27	80	–	–	280
24-28	80	110	250	280
28-1	80	110	250	280
28-2	35	110	250	325
28-3	70	145	215	290
28-4	80	110	250	280
28-5	35	110	250	325

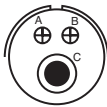
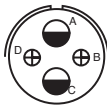
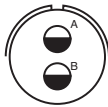
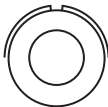
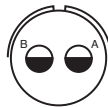
Insert Arrangement	DEGREES			
	W	X	Y	Z
28-6	70	145	215	290
28-7	35	110	250	325
28-8	80	110	250	280
28-9	80	110	250	280
28-10	80	110	250	280
28-11	80	110	250	280
28-12	90	180	270	–
18-15	80	110	250	280
28-16	80	110	250	280
28-17	80	110	250	280
28-18	70	145	215	290
28-19	80	110	250	280
28-20	80	110	250	280
28-21	80	110	250	280
28-22	70	145	215	290
32-1	80	110	250	280
32-2	70	145	215	290
32-3	80	110	250	280
32-4	80	110	250	280
32-5	35	110	250	325
32-6	80	110	250	280
32-7	80	125	235	280
32-8	80	125	235	280
32-9	80	110	250	280
32-10	80	110	250	280
32-12	80	110	250	280
32-13	80	110	250	280
32-15	35	110	250	280
32-17	45	110	250	–
32-73	36	–	–	–
36-1	80	110	250	280
36-3	70	145	215	290
36-4	70	145	215	290
36-5	–	120	240	–
36-6	35	110	250	325
36-7	80	110	250	280
36-8	80	110	250	280
36-9	80	125	235	280
36-10	80	125	235	280
36-13	80	110	250	280
36-14	90	180	270	–
36-15	60	125	245	305
36-52	72	144	216	288
40-1	65	130	235	300
40-9	65	125	225	310
40-56	72	144	216	288
44-52	72	135	225	288

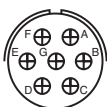
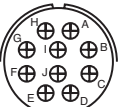
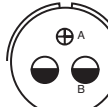
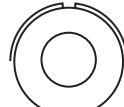
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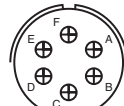
contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

						
Insert Arrangement	12-5	12-48	12-49	14-3	14-53	16-2
Service Rating	D	A	A	A	Inst.	E
Number of Contacts	1	3	2	1	6	1
Contact Size	12	16	16	8	16	12

						
Insert Arrangement	16-7	16-9	16-10	16-11	16-12	16-13
Service Rating	A	A	A	A	A	A
Number of Contacts	1 2	2 2	3	2	1	2*
Contact Size	8 16	12 16	12	12	4	12

						
Insert Arrangement	16-61	18-1	18-3	18-4	18-5	18-6
Service Rating	A	B, C, F, G = A; Bal. = Inst.	D	D	D	D
Number of Contacts	7	10	2	4	2 1	1
Contact Size	16	16	12	16	12 16	4

						
Insert Arrangement	18-7	18-8	18-9	18-10	18-11	18-12
Service Rating	B	A	Inst.	A	A	A
Number of Contacts	1	1 7	2 5	4	5	6
Contact Size	8	12 16	12 16	12	12	16

* A = Iron; B = Constantan

CONTACT LEGEND

				
16	12	8	4	0

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contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

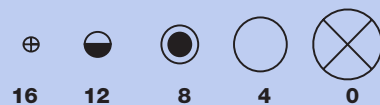
					100° Rotation of 18-9	
Insert Arrangement	18-13	18-14	18-15	18-16	18-17	18-19
Service Rating	A	A	A	C	Inst.	A
Number of Contacts	1 3	1 1	4**	1	2 5	10
Contact Size	8 12	4 16	12	12	12 16	16

			250° Rotation of 18-1		110° Rotation of 18-20	260° Rotation of 18-20
Insert Arrangement	18-20	18-22	18-24	18-29	18-30	18-31
Service Rating	A	D	B, C, F, G = A, Bal. = Inst.	A	A	A
Number of Contacts	5	3	10	5	5	5
Contact Size	16	16	16	16	16	16

Insert Arrangement	20-2	20-3	20-4	20-6	20-7	20-8
Service Rating	D	D	D	D	A, B, H, G = D; C, D, E, F = A	Inst.
Number of Contacts	1	3	4	3	8	2 4
Contact Size	0	12	12	16	16	8 16

** A, C = Iron; B, D = Constantan

CONTACT LEGEND

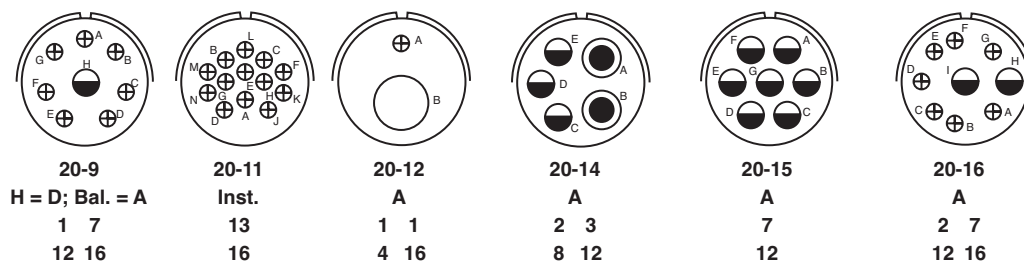


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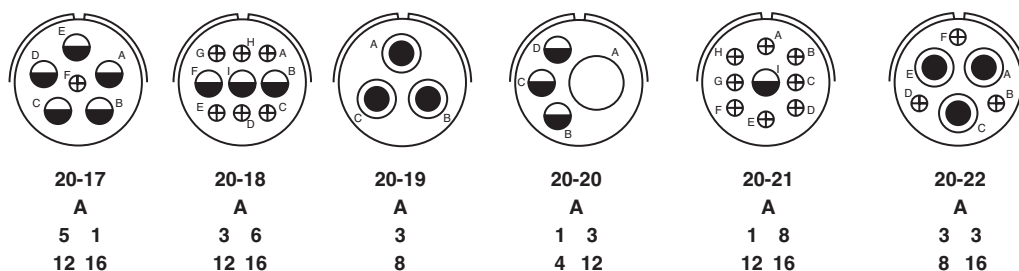
contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

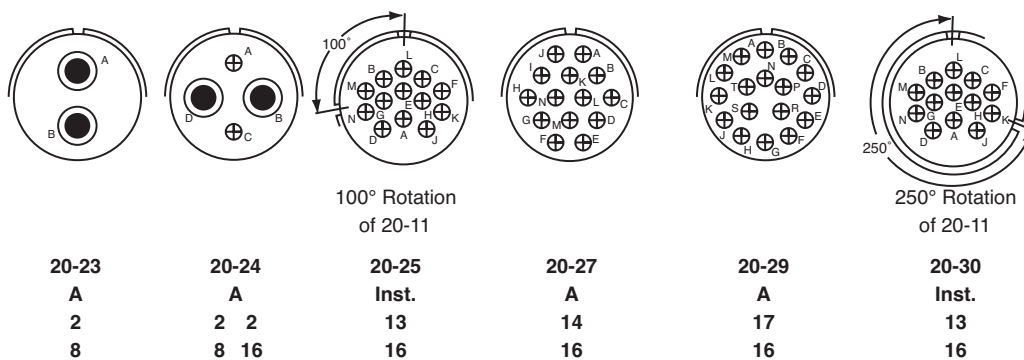
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



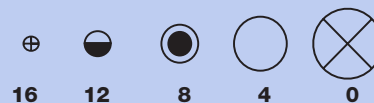
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



Insert Arrangement
Service Rating
Number of Contacts
Contact Size



CONTACT LEGEND

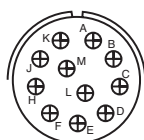


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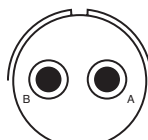
contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

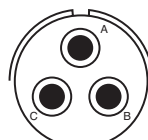
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



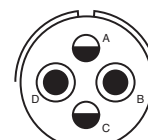
20-33
A
11
16



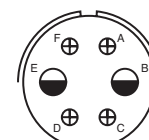
22-1
D
2
8



22-2
D
3
8

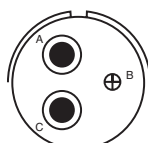


22-4
A
2 2
8 12

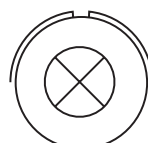


22-5
D
2 4
12 16

Insert Arrangement
Service Rating
Number of Contacts
Contact Size



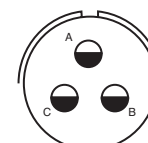
22-6
D
2 1
8 16



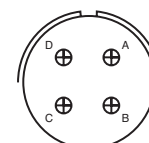
22-7
E
1
0



22-8
E
2
12

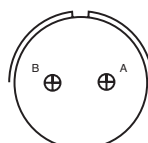


22-9
E
3
12

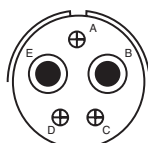


22-10
E
4
16

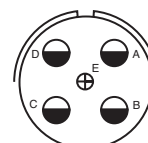
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



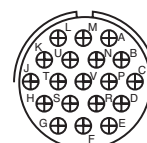
22-11
B
2
16



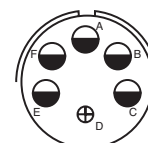
22-12
D
2 3
8 16



22-13
E = D; A, B, C, D = A
4 1
12 16

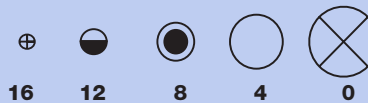


22-14
A
19
16



22-15
D = E; A, B, C, E, F = A
5 1
12 16

CONTACT LEGEND



MIL-DTL-22992, QWLD

contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

Insert Arrangement	22-16	22-17	22-18	22-19	22-20
Service Rating	A	A = D; Bal. = A	A, B, F, G, H = D; C, D, E = A	A	A
Number of Contacts	3 6	1 8	8	14	9
Contact Size	12 16	12 16	16	16	16

Insert Arrangement	22-21	22-22	22-23	22-24	22-27
Service Rating	A	A	H = D; Bal. = A	C, D, E = D; A, B, F = A	J = D; Bal. = A
Number of Contacts	1 2	4	8	2 4	1 8
Contact Size	0 16	8	12	12 16	8 16

Insert Arrangement	22-28	22-33	22-34	22-36	24-2
Service Rating	A	A, B, C, D = D; E, F, G = A	D	H = D; Bal. = A	D
Number of Contacts	7	7	3 2	8	7
Contact Size	12	16	12 16	12	12

CONTACT LEGEND	16	12	8	4	0

MIL-DTL-22992, QWLD

contact arrangements

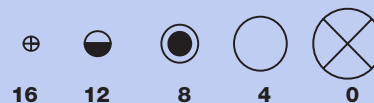
Front Face of Pin Insert or Rear of Socket Insert Illustrated

Insert Arrangement	24-3	24-5	24-6	24-7	24-9
Service Rating	D	A	A, G, H = D; Bal. = A	A	A
Number of Contacts	2 5	16	8	2 14	2
Contact Size	12 16	16	12	12 16	4

Insert Arrangement	24-10	24-11	24-12	24-16	24-17
Service Rating	A	A	A	A, B, F, G = D; C, D, E = A	D
Number of Contacts	7	3 6	2 3	1 3 3	2 3
Contact Size	8	8 12	4 12	8 12 16	12 16

Insert Arrangement	24-20	24-21	24-22	24-27	24-28
Service Rating	D	D	D	E	Inst.
Number of Contacts	2 9	1 9	4	7	24
Contact Size	12 16	8 16	8	16	16

CONTACT LEGEND

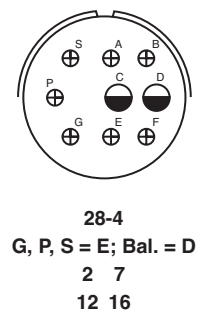
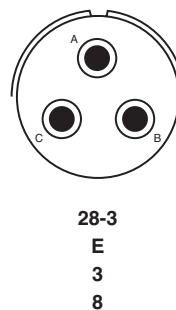
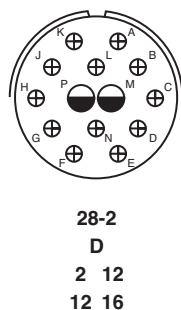
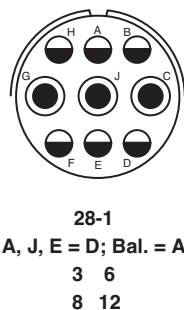


MIL-DTL-22992, QWLD

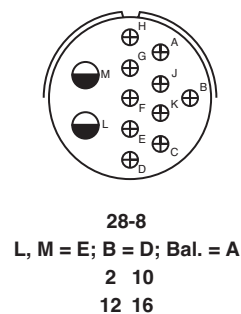
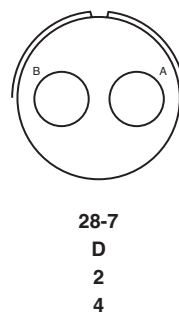
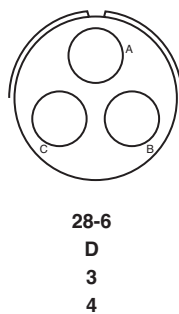
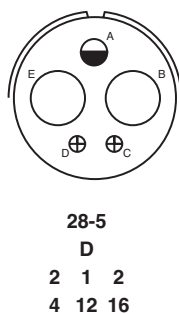
contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

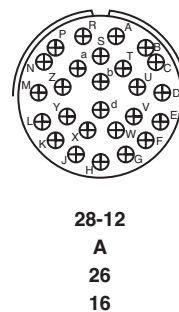
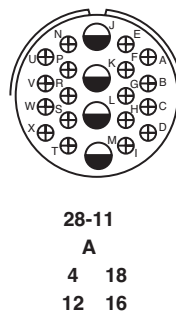
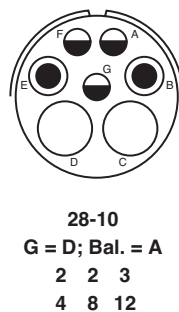
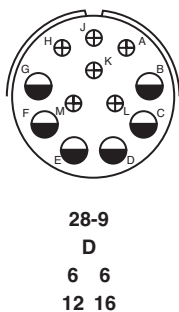
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



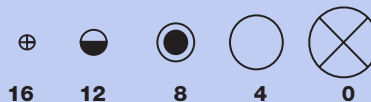
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



Insert Arrangement
Service Rating
Number of Contacts
Contact Size



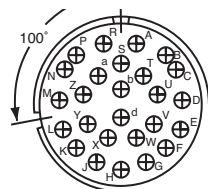
CONTACT LEGEND



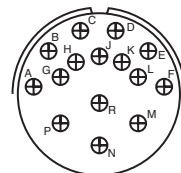
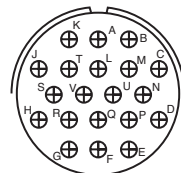
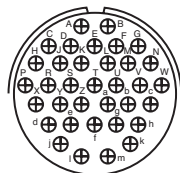
MIL-DTL-22992, QWLD

contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated



100° Rotation
of 28-12



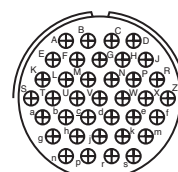
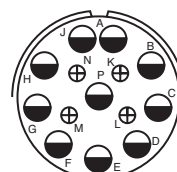
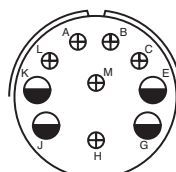
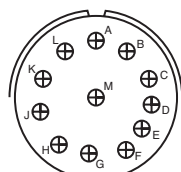
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

28-13
A
26
16

28-15
A
35
16

28-16
A
20
16

28-17
R = B; M, N, P = D; A to L = A
15
16



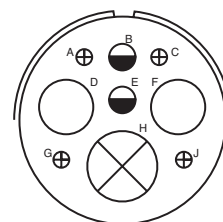
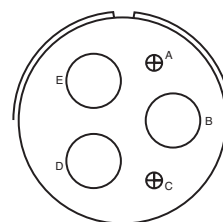
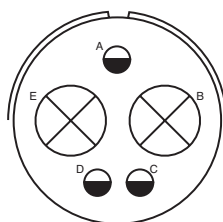
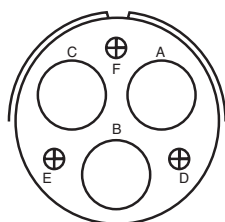
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

28-18
M = C; G, H, J, K, L = D; A, B = H; Bal. = Inst.
12
16

28-19
H, M = B; A = D; Bal = A
4 6
12 16

28-20
A
10 4
12 16

28-21
A
37
16



Insert Arrangement
Service Rating
Number of Contacts
Contact Size

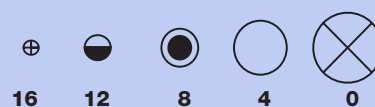
28-22
D
3 3
4 16

32-1
A = E; Bal. = D
2 3
0 12

32-2
E
3 2
4 16

32-3
D
1 2 2 4
0 4 12 16

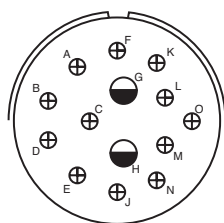
CONTACT LEGEND



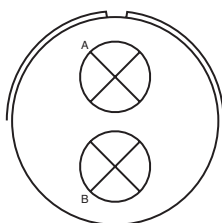
MIL-DTL-22992, QWLD

contact arrangements

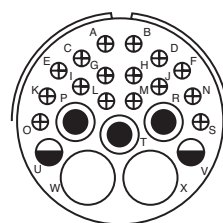
Front Face of Pin Insert or Rear of Socket Insert Illustrated



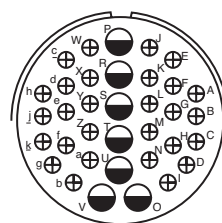
32-4
F, J, K, N = A; Bal. = D
2 12
12 16



32-5
D
2
0

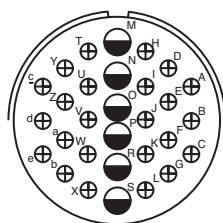


32-6
A
2 3 2 16
4 8 12 16

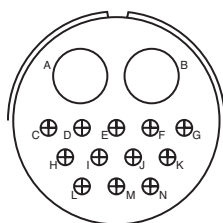


32-7
A, B, h, j = Inst; Bal. = A
7 28
12 16

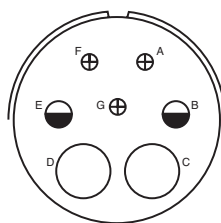
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



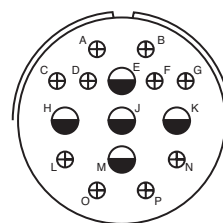
32-8
A
6 24
12 16



32-9
D
2 12
4 16

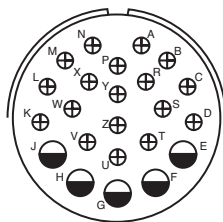


32-10
A, F = E, G = B; B, E = D; C, D = A
2 2 3
4 8 16

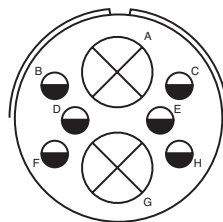


32-12
C, D, E, F, G = A; Bal. = D
5 10
12 16

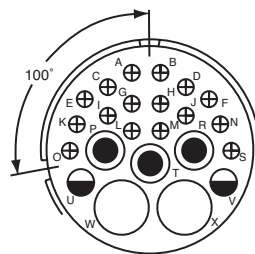
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



32-13
D
5 18
12 16

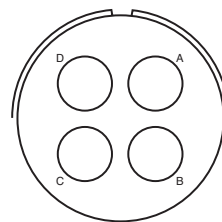


32-15
D
2 6
0 12



100° Rotation
of 32-6

32-16
A
2 3 2 16
4 8 12 16



32-17
D
4
4

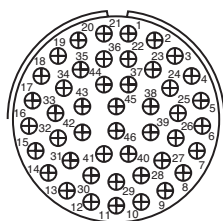
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



MIL-DTL-22992, QWLD

contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

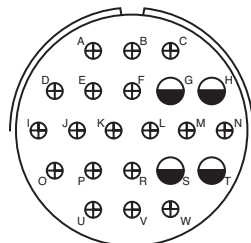


32-73

A

46

16

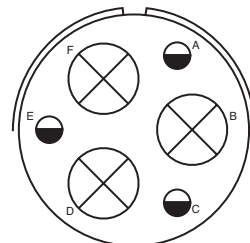


36-1

D

4 18

12 16



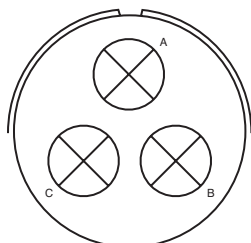
36-3

D

3 3

0 12

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

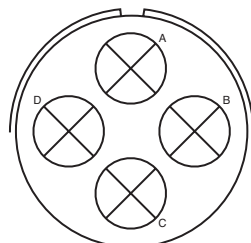


36-4

A = D; B, C = A

3

0

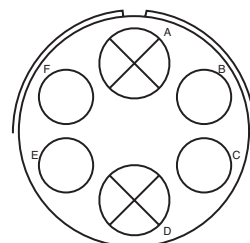


36-5

A

4

0



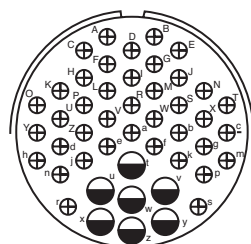
36-6

A

2 4

0 4

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

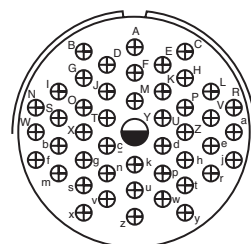


36-7

A

7 40

12 16

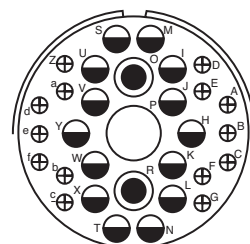


36-8

A

1 46

12 16



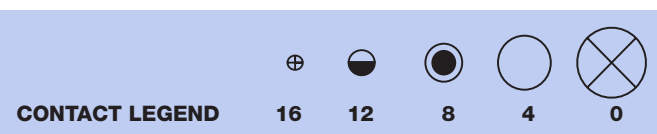
36-9

A

1 2 14 14

4 8 12 16

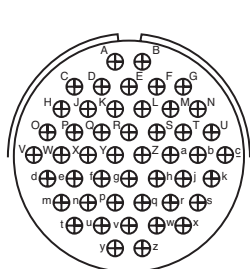
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



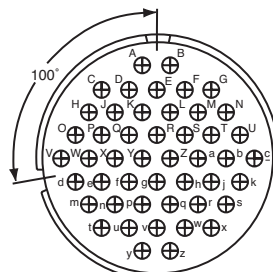
MIL-DTL-22992, QWLD

contact arrangements

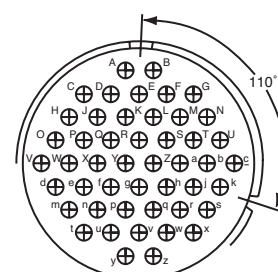
Front Face of Pin Insert or Rear of Socket Insert Illustrated



100° Rotation
of 36-10



110° Rotation
of 36-10

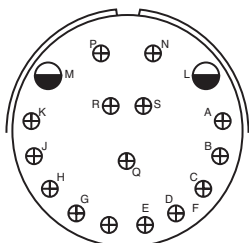


Insert Arrangement
Service Rating
Number of Contacts
Contact Size

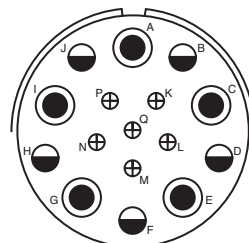
36-10
A
48
16

36-11
A
48
16

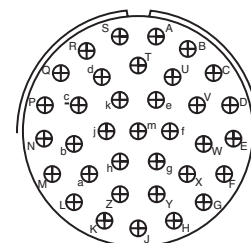
36-12
A
48
16



36-13
N, P, Q = E; Bal. = A
2 15
12 16



36-14
D
5 5 6
8 12 16



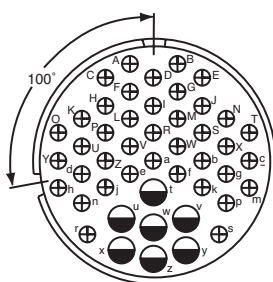
36-15
M = D; Bal. = A
35
16

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

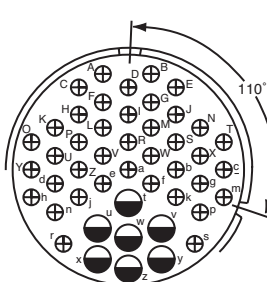
36-13
N, P, Q = E; Bal. = A
2 15
12 16

36-14
D
5 5 6
8 12 16

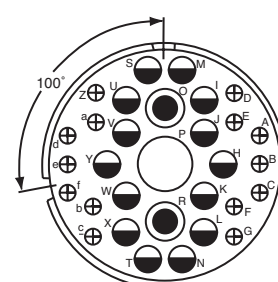
36-15
M = D; Bal. = A
35
16



100° Rotation
of 36-7



110° Rotation
of 36-7



100° Rotation
of 36-9

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

36-16
A
7 40
12 16

36-17
A
7 40
12 16

36-18
A
1 2 14 14
4 8 12 16

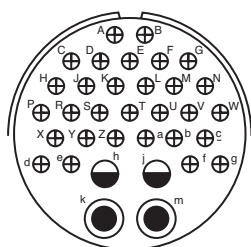
CONTACT LEGEND



MIL-DTL-22992, QWLD

contact arrangements

Front Face of Pin Insert or Rear of Socket Insert Illustrated

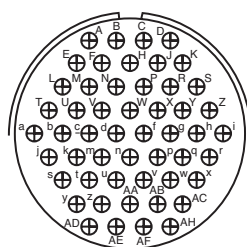


36-20

A

2 2 30

8 12 16

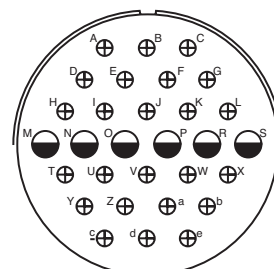


36-52

A

52

16



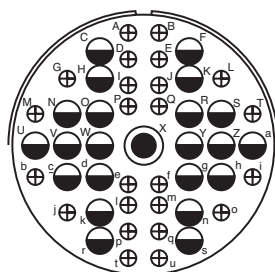
40-1

D

6 24

12 16

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

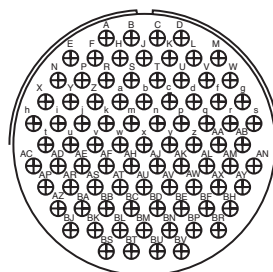


40-9

A

1 22 24

8 12 16

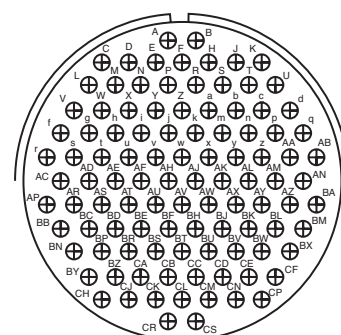


40-56

A

85

16



44-52

A

104

16

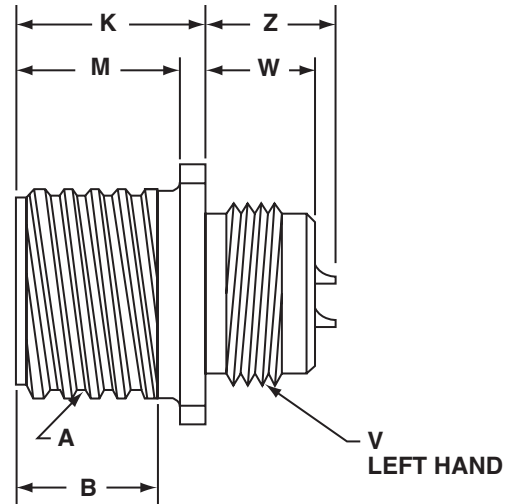
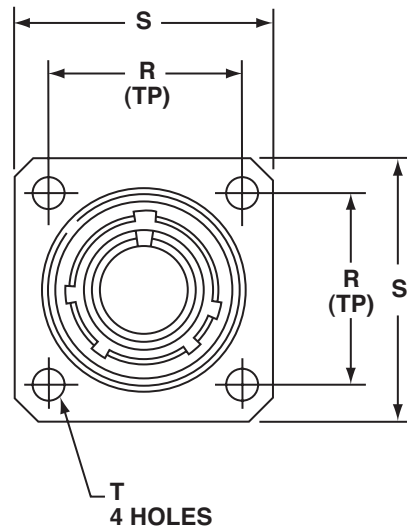
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

CONTACT LEGEND



MIL-DTL-22992, QWLD MS17343

wall mount receptacle



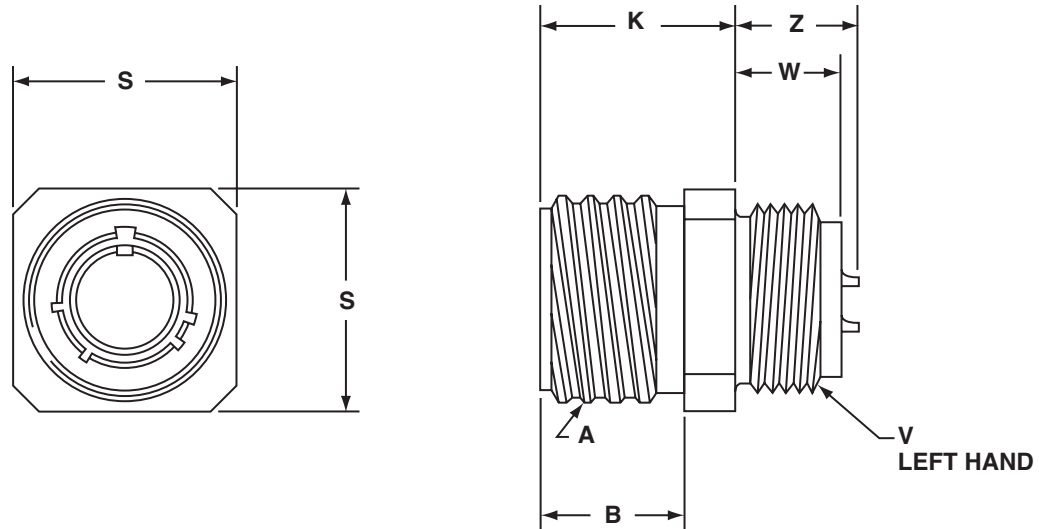
Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stub	B Min Full Thd	K +.021 -.020	M +.010 -.000	R (TP)	S +.021 -.020	T Dia +.004 -.003	V Thread Class 2A-LH (Plated)	W ±.010	Z Max
12	.8750	.672	.937	.797	.906	1.188	.150	.750-20UNEF	.640	.700
14	1.0000	.672	.937	.797	.969	1.281	.150	.875-20UNEF	.640	.700
16	1.1250	.672	.937	.797	1.062	1.375	.150	1.000-20UNEF	.640	.700
18	1.2500	.672	.953	.797	1.156	1.500	.177	1.125-18UNEF	.625	.686
20	1.3750	.672	.953	.797	1.250	1.625	.177	1.250-18UNEF	.625	.686
22	1.5000	.672	.953	.797	1.375	1.750	.177	1.375-18UNEF	.625	.686
24	1.7500	.672	1.047	.859	1.562	2.000	.177	1.625-18UNEF	.594	.585
28	2.0000	.672	1.047	.859	1.750	2.250	.177	1.875-16UN	.594	.591
32	2.2500	.672	1.109	.922	1.938	2.500	.209	2.0625-16UNS	.530	.528
36	2.5000	.672	1.109	.922	2.188	2.750	.209	2.3125-16UNS	.530	.528
40	2.7500	.672	1.109	.922	2.375	3.000	.209	2.625-16UN	.703	.528
44	3.0000	.672	1.109	.922	2.625	3.250	.209	2.875-16UN	.703	.770
48†	3.2500	.672	1.109	.922	2.875	3.500	.209	3.125-16UN	.703	.770

All dimensions for reference only.

* To complete MS part number, see how to order, pg. 27.

MIL-DTL-22992, QWLD MS17345

cable connecting plug



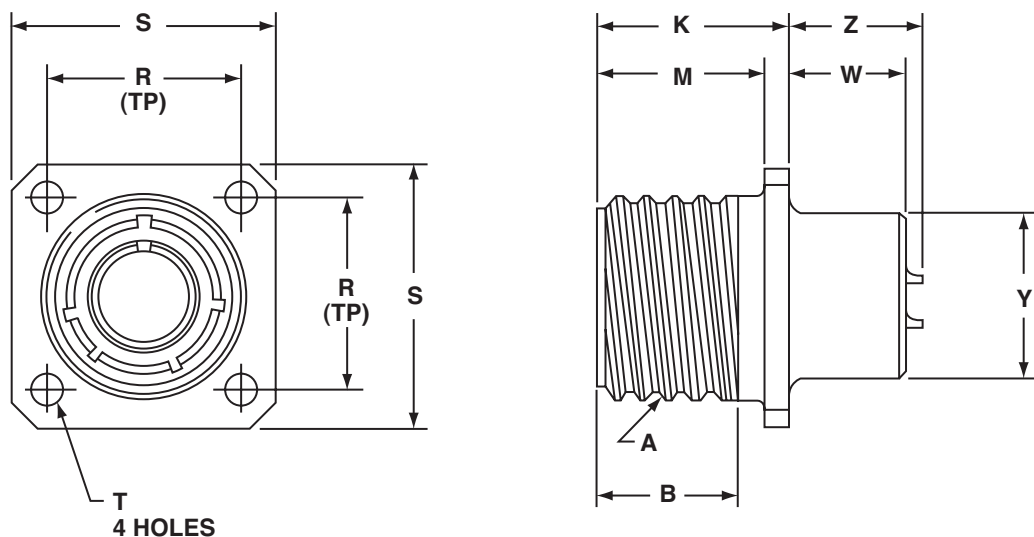
Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stub	B +.016 -.000	K +.021 -.020	S +.021 -.020	V Thread Class 2A-LH (Plated)	W ±.010	Z Max
12	.8750	.688	.938	1.000	.750-20UNEF	.641	.696
14	1.0000	.688	.938	1.094	.875-20UNEF	.641	.696
16	1.1250	.688	.938	1.281	1.000-20UNEF	.641	.696
18	1.2500	.703	.957	1.375	1.125-18UNEF	.625	.680
20	1.3750	.703	.957	1.500	1.250-18UNEF	.625	.680
22	1.5000	.703	.957	1.625	1.375-18UNEF	.625	.680
24	1.7500	.766	1.016	1.875	1.625-18UNEF	.625	.617
28	2.0000	.766	1.016	2.125	1.875-16UN	.625	.617
32	2.2500	.703	1.078	2.375	2.0625-16UN	.563	.555
36	2.5000	.703	1.078	2.625	2.3125-16UN	.563	.555
40	2.7500	.703	1.078	3.000	2.625-16UN	.703	.555
44	3.0000	.703	1.078	3.250	2.875-16UN	.703	.805

All dimensions for reference only.

* To complete MS part number, see how to order, pg. 27.

MIL-DTL-22992, QWLD MS17346

box mount receptacle



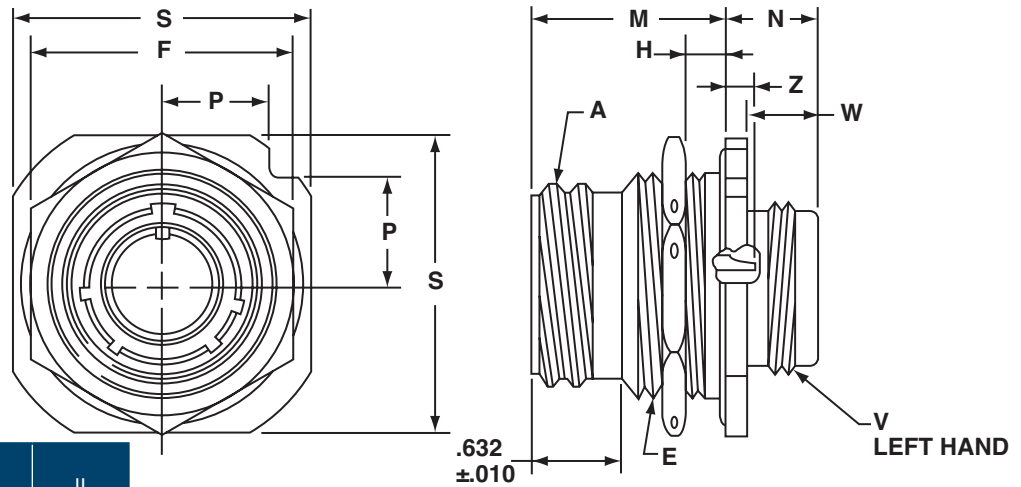
Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stub	B Min Full Thd	K +.021 -.010	M +.010 -.000	R (TP)	S +.021 -.020	T Dia +.004 -.003	W +.020 -.030	Y +.011 -.010	Z Max
12	.8750	.672	.938	.797	.906	1.188	.150	.640	.640	.700
14	1.0000	.672	.938	.797	.969	1.281	.150	.640	.765	.700
16	1.1250	.672	.938	.797	1.062	1.375	.150	.640	.890	.700
18	1.2500	.672	.953	.797	1.156	1.500	.177	.625	1.015	.686
20	1.3750	.672	.953	.797	1.250	1.625	.177	.625	1.171	.686
22	1.5000	.672	.953	.797	1.375	1.750	.177	.625	1.296	.686
24	1.7500	.672	1.047	.859	1.562	2.000	.177	.594	1.421	.585
28	2.0000	.672	1.047	.859	1.750	2.250	.177	.594	1.625	.591
32	2.2500	.672	1.110	.922	1.938	2.500	.209	.531	1.891	.528
36	2.5000	.672	1.110	.922	2.188	2.750	.209	.531	2.078	.528
40	2.7500	.672	1.110	.922	2.375	3.000	.209	.531	2.312	.528
44	3.0000	.672	1.110	.922	2.625	3.250	.209	.531	2.562	.778

All dimensions for reference only.

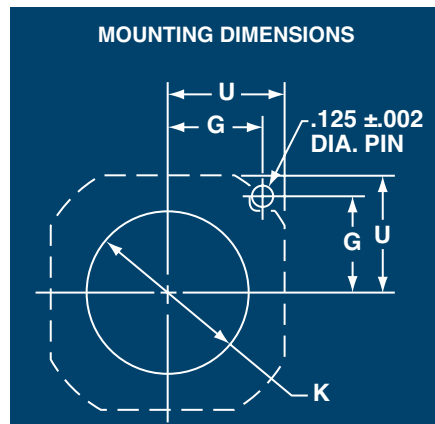
* To complete MS part number, see how to order, pg. 27.

MIL-DTL-22992, QWLD MS17347

jam nut receptacle (wall mount)



Shell Size	K Dia. +.005 -.000	G ±.003	U ±.005
12,13	1.005	.562	.688
14,15	1.130	.606	.750
16,17	1.255	.699	.875
18	1.380	.739	.938
20	1.505	.783	1.000
22	1.630	.830	1.062
24	1.880	.919	1.188
28	2.130	1.007	1.312
32	2.380	1.096	1.438
36	2.630	1.183	1.562
40	2.880	1.292	1.703



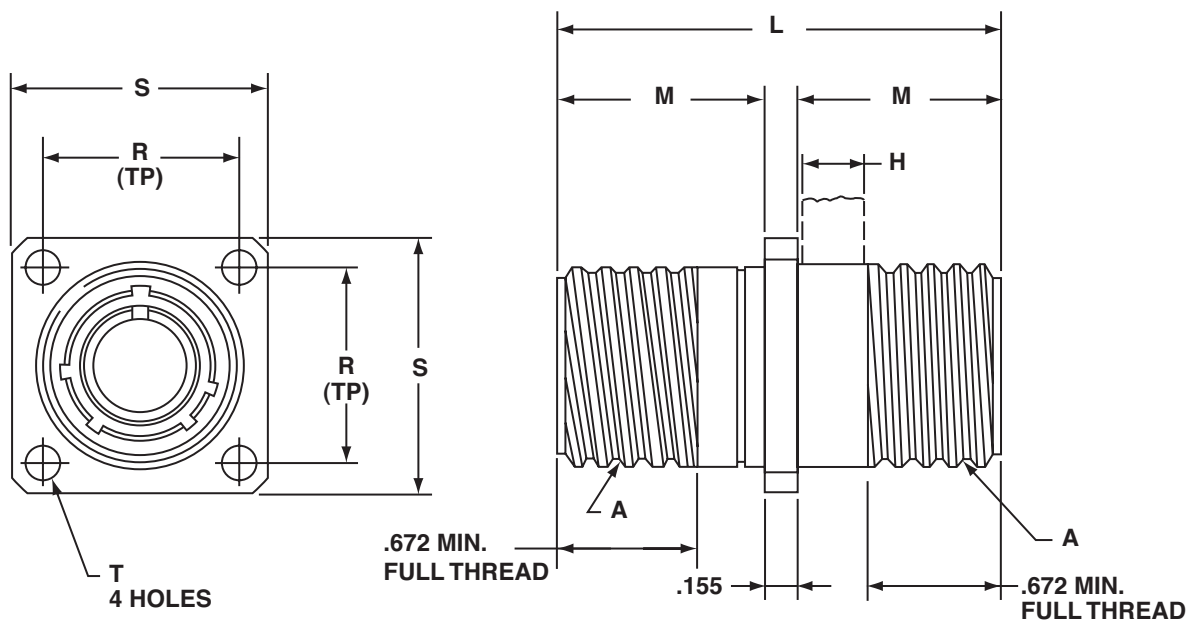
Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stud	E Thread Class 2A (Plated)	F Hex +.017 -.016	H Panel Thickness		M ±.010	N +.021 -.020	P ±.010	S +.011 -.010	V Thread Class 2A-LH (Plated)	W ±.010	Z Max
				Min	Max							
12	.8750	1.000-20UNEF	1.250	.094	.188	1.141	.641	.486	1.375	.750-20UNEF	.516	.483
14	1.0000	1.125-18UNEF	1.312	.094	.188	1.141	.641	.530	1.500	.875-20UNEF	.516	.483
16	1.1250	1.250-18UNEF	1.500	.094	.188	1.141	.703	.623	1.750	1.000-20UNEF	.516	.483
18	1.2500	1.375-18UNEF	1.562	.094	.203	1.156	.703	.663	1.875	1.125-18UNEF	.516	.467
20	1.3750	1.500-18UNEF	1.750	.094	.203	1.156	.703	.707	2.000	1.250-18UNEF	.516	.467
22	1.5000	1.625-18UNEF	1.875	.094	.203	1.156	.703	.751	2.125	1.375-18UNEF	.516	.467
24	1.7500	1.875-16UN	2.125	.094	.265	1.219	.703	.840	2.375	1.625-18UNEF	.516	.404
28	2.0000	2.125-16UN	2.375	.094	.277	1.231	.785	.928	2.625	1.875-16UN	.516	.392
32	2.2500	2.375-16UN	2.625	.094	.215	1.231	.785	1.017	2.875	2.0625-16UN	.516	.392
36	2.5000	2.625-16UN	2.875	.094	.215	1.231	.785	1.104	3.125	2.3125-16UN	.516	.392
40	2.7500	2.875-16UN	3.125	.094	.215	1.231	.972	1.213	3.406	2.625-16UN	.703	.392
44	3.0000	3.125-16UN	3.375	.094	.215	1.231	.972	1.299	3.656	2.875-16UN	.703	.642

All dimensions for reference only.

* To complete MS part number, see how to order, pg. 27.

QWLD

thru bulkhead receptacle

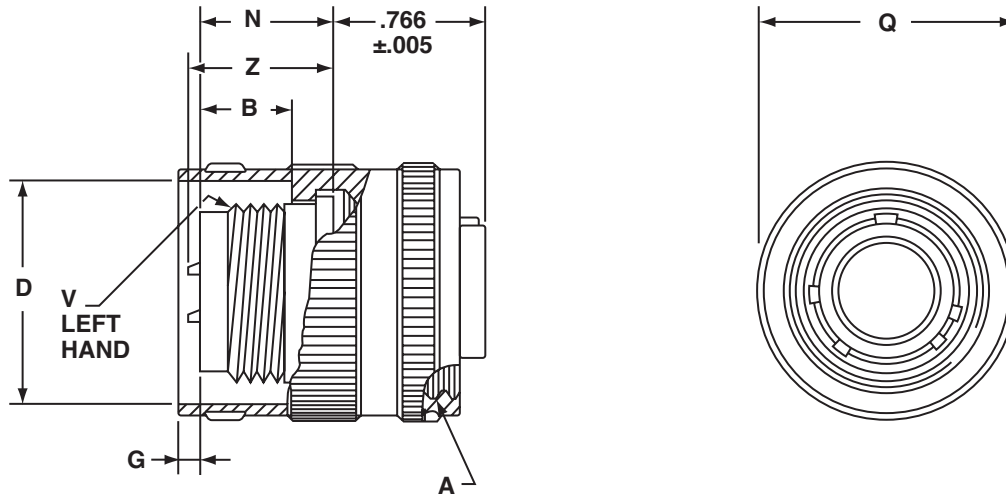


Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stub	H Max	L ±.015	M +.000 -.010	R (TP)	S +.021 -.020	T Dia +.004 -.003
12	.8750	.312	2.219	1.032	.906	1.188	.150
14	1.0000	.312	2.219	1.032	.969	1.281	.150
16	1.1250	.312	2.219	1.032	1.062	1.375	.150
18	1.2500	.312	2.219	1.032	1.156	1.500	.177
20	1.3750	.312	2.219	1.032	1.250	1.625	.177
22	1.5000	.312	2.219	1.032	1.375	1.750	.177
24	1.7500	.312	2.219	1.032	1.562	2.000	.177
28	2.0000	.312	2.219	1.032	1.750	2.250	.177
32	2.2500	.312	2.219	1.032	1.938	2.500	.209
36	2.5000	.312	2.219	1.032	2.188	2.750	.209
40	2.7500	.312	2.219	1.032	2.375	3.000	.209
44	3.0000	.447	2.469	1.157	2.625	3.250	.209

All dimensions for reference only.

* To complete MS part number, see how to order, pg. 27.

MIL-DTL-22992, QWLD MS17344 straight plug



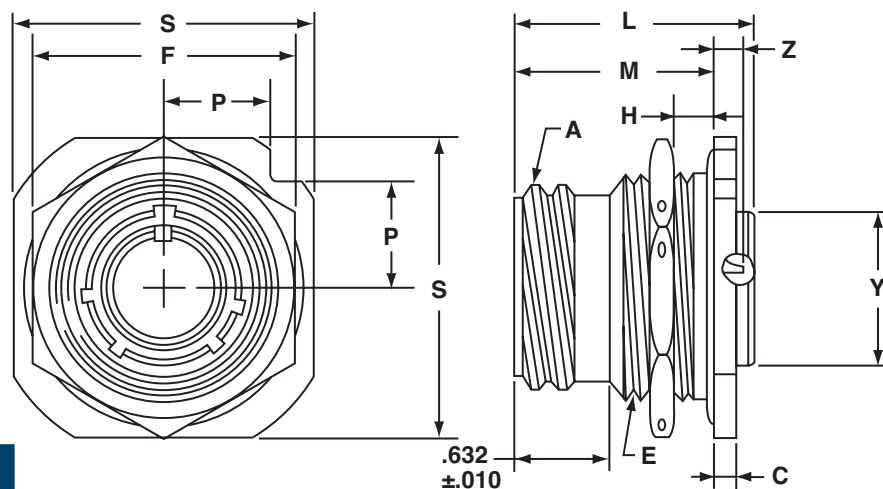
Shell Size	A Thread Class 2B 0.1P-0.2L Double Stub	B	D $+ .010$ $- .001$	G	N $+ .011$ $- .010$	Q Dia Max	V Thread Class 2A-LH (Plated)	Z Max
12	.8750	.519 $\pm$.020	.985	.030 $\pm$.030	.738	1.156	.750-20UNEF	.807
14	1.0000	.519 $\pm$.020	1.109	.013 $\pm$.030	.738	1.281	.875-20UNEF	.807
16	1.1250	.519 $\pm$.020	1.235	.091 $\pm$.030	.738	1.469	1.000-20UNEF	.807
18	1.2500	.519 $\pm$.020	1.359	.216 $\pm$.030	.738	1.563	1.125-18UNEF	.807
20	1.3750	.519 $\pm$.020	1.485	.216 $\pm$.030	.738	1.688	1.250-18UNEF	.807
22	1.5000	.519 $\pm$.020	1.609	.216 $\pm$.030	.738	1.844	1.375-18UNEF	.807
24	1.7500	.519 $\pm$.020	1.859	.184 $\pm$.030	.800	2.094	1.625-18UNEF	.807
28	2.0000	.519 $\pm$.020	2.109	.184 $\pm$.030	.800	2.344	1.875-16UN	.807
32	2.2500	.525 $\pm$.026	2.359	.190 $\pm$.033	.875	2.594	2.0625-16UNS	.807
36	2.5000	.525 $\pm$.026	2.609	.234 $\pm$.033	.875	2.844	2.3125-16UNS	.807
40	2.7500	.710 $\pm$.023	2.922	.049 $\pm$.030	1.041	3.156	2.625-16UN	.807
44	3.0000	.710 $\pm$.023	3.172	.049 $\pm$.030	1.041	3.406	2.875-16UN	.957

All dimensions for reference only.

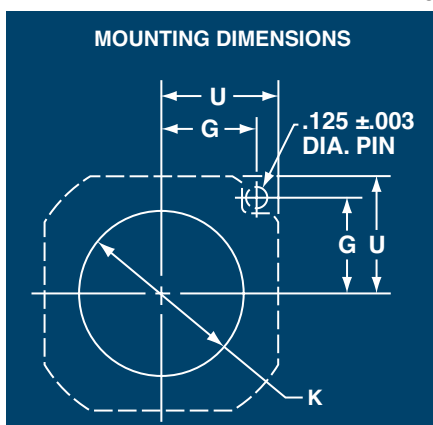
* To complete MS part number, see how to order, pg. 27.

MIL-DTL-22992, QWLD MS17348

jam nut receptacle (box mount)



Shell Size	K Dia. +.005 -.000	G ±.003	U ±.005
12,13	1.005	.562	.688
14,15	1.130	.606	.750
16,17	1.255	.699	.875
18	1.380	.739	.938
20	1.505	.783	1.000
22	1.630	.830	1.062
24	1.880	.919	1.188
28	2.130	1.007	1.312
32	2.380	1.096	1.438
36	2.630	1.183	1.562
40	2.880	1.292	1.703



Shell Size	A Thread Class 2A (Plated) 0.1P-0.2L Double Stud	C +.006 -.005	E Thread Class 2A (Plated)	F Hex +.017 -.016	H Panel Thickness		L +.011 -.010	M ±.010	P ±.010	S +.011 -.010	Y +.011 -.010	Z Max
					Min	Max						
12	.8750	.125	1.000-20UNEF	1.250	.094	.297	1.578	1.235	.486	1.375	.640	.483
14	1.0000	.125	1.125-18UNEF	1.312	.094	.297	1.578	1.235	.530	1.500	.765	.483
16	1.1250	.188	1.250-18UNEF	1.500	.094	.297	1.578	1.235	.623	1.750	.890	.483
18	1.2500	.188	1.375-18UNEF	1.562	.094	.266	1.578	1.203	.663	1.875	1.015	.467
20	1.3750	.188	1.500-18UNEF	1.750	.094	.266	1.578	1.203	.707	2.000	1.171	.467
22	1.5000	.188	1.625-18UNEF	1.875	.094	.266	1.578	1.203	.751	2.125	1.296	.467
24	1.7500	.188	1.875-16UN	2.125	.094	.328	1.641	1.266	.840	2.375	1.421	.404
28	2.0000	.219	2.125-16UN	2.375	.094	.328	1.641	1.329	.928	2.625	1.625	.392
32	2.2500	.219	2.375-16UN	2.625	.094	.328	1.641	1.329	1.017	2.875	1.891	.392
36	2.5000	.219	2.625-16UN	2.875	.094	.328	1.641	1.329	1.104	3.125	2.078	.392
40	2.7500	.219	2.875-16UN	3.125	.094	.328	1.641	1.329	1.213	3.406	2.312	.392
44	3.0000	.219	3.125-16UN	3.375	.094	.328	1.641	1.329	1.299	3.656	2.562	.642

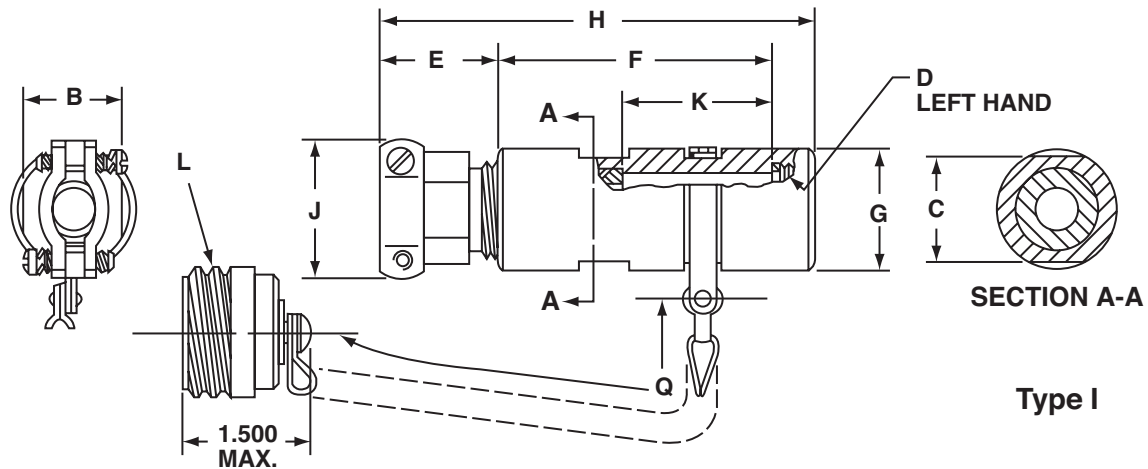
All dimensions for reference only.

* To complete MS part number, see how to order, pg. 27.

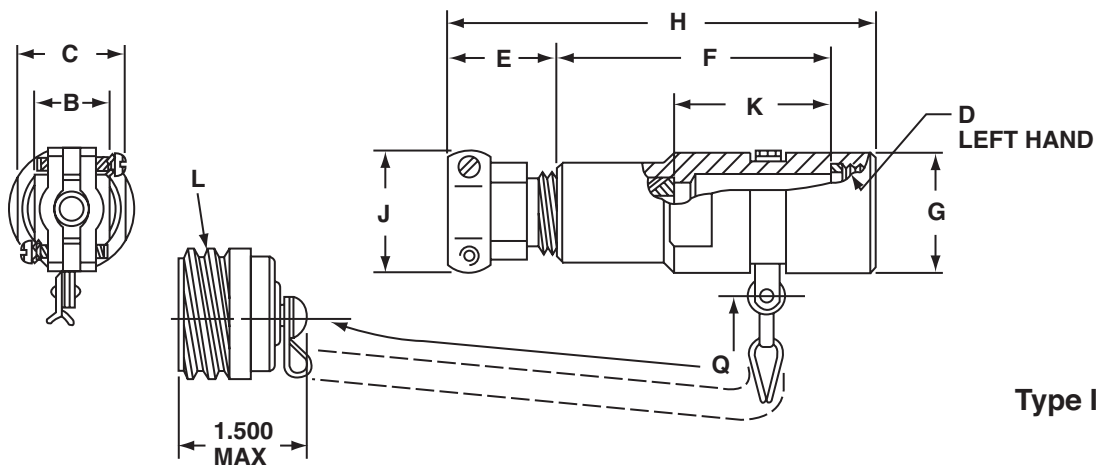
MIL-DTL-22992, QWLD ACCESSORIES

M85049

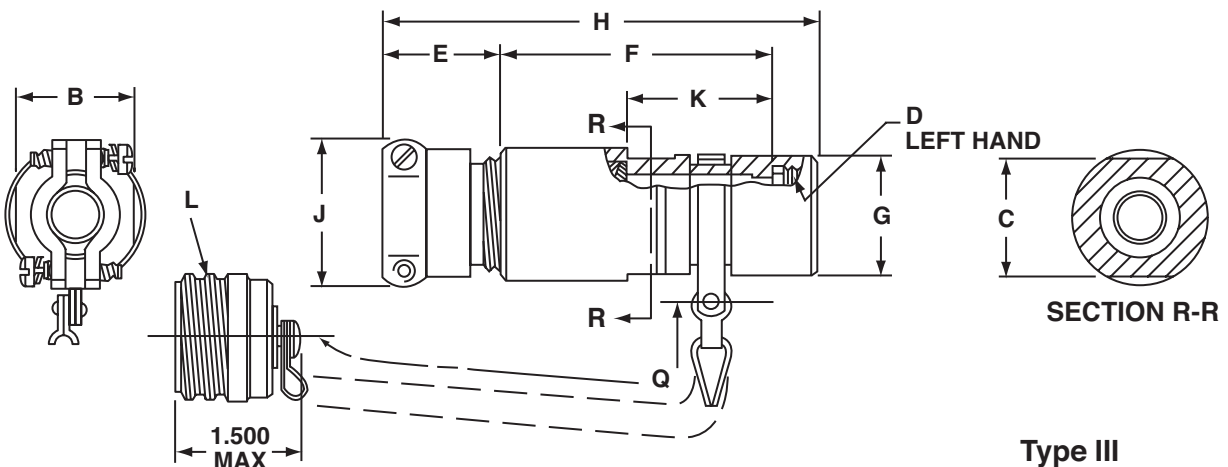
cable sealing adapters (plug)



Type I



Type II



Type III

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (plug)

MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A (Plated) 0.1P-0.2L Double Stub	Q Approx.	Type
			Max Dia	Min Dia												
M85049/4A1A1	MS17342N1A1	12	.530	.436	1.000	.812	.750-20UNEF	1.062	2.719	.938	4.275	1.375	1.219	.8750	5.000	III
M85049/4A2A1	MS17342N2A1	12	.500	.406	.875	.938	.750-20UNEF	.969	2.215	.938	3.678	1.125	.871	.8750	5.000	III
M85049/4A3A1	MS17342N3A1	12	.405	.311	1.000	.812	.750-20UNEF	1.062	2.719	.938	4.275	1.375	1.219	.8750	5.000	III
M85049/3A1A1	MS17340N1A1	12	.375	.281	.750	.812	.750-20UNEF	.969	1.902	.938	3.365	1.062	.621	.8750	5.000	I
M85049/3A2A1	MS17340N2A1	12	.281	.188	.750	.812	.750-20UNEF	.969	1.902	.938	3.365	1.062	.621	.8750	5.000	I
M85049/5A1A1	MS17341N1A1	12	.250	.156	.825	.812	.750-20UNEF	.906	1.782	.938	3.182	.938	.563	.8750	5.000	II
M85049/4A5A1	MS17342N5A1	14	.625	.531	1.062	1.125	.875-20UNEF	1.062	2.933	1.062	4.489	1.562	1.371	1.0000	5.000	III
M85049/4A4A1	MS17342N4A1	14	.605	.511	1.000	1.062	.875-20UNEF	1.062	2.621	1.062	4.177	1.375	1.121	1.0000	5.000	III
M85049/4A6A1	MS17342N6A1	14	.530	.436	1.000	1.062	.875-20UNEF	1.062	2.621	1.062	4.177	1.375	1.121	1.0000	5.000	III
M85049/3A3A1	MS17340N3A1	14	.438	.344	.875	.938	.875-20UNEF	.969	2.215	1.062	3.678	1.125	.871	1.0000	5.000	I
M85049/4A7A1	MS17342N7A1	14	.405	.311	1.000	1.062	.875-20UNEF	1.062	2.621	1.062	4.177	1.375	1.121	1.0000	5.000	III
M85049/3A4A1	MS17340N4A1	16	.605	.511	1.000	1.062	1.000-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.1250	5.000	I
M85049/3A5A1	MS17340N5A1	16	.530	.436	1.000	1.062	1.000-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.1250	5.000	I
M85049/3A6A1	MS17340N6A1	16	.405	.311	1.000	1.062	1.000-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.1250	5.000	I
M85049/4A8A1	MS17342N8A1	18	.828	.715	1.188	1.250	1.125-18UNEF	1.094	2.996	1.312	4.584	1.688	1.343	1.2500	5.000	III
M85049/3A8A1	MS17340N8A1	18	.699	.605	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	5.000	I
M85049/3A7A1	MS17340N7A1	18	.625	.531	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	5.000	I
M85049/5A5A1	MS17341N5A1	18	.605	.511	1.000	1.125	1.125-18UNEF	1.062	2.621	1.312	4.177	1.375	1.121	1.2500	5.000	II
M85049/5A6A1	MS17341N6A1	18	.530	.436	1.000	1.125	1.125-18UNEF	1.062	2.621	1.312	4.177	1.375	1.121	1.2500	5.000	II
M85049/3A9A1	MS17340N9A1	18	.500	.406	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	5.000	I
M85049/3A10A1	MS17340N10A1	18	.455	.361	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	5.000	I
M85049/5A2A1	MS17341N2A1	18	.375	.281	.750	1.125	1.125-18UNEF	.969	2.438	1.312	3.901	1.062	1.157	1.2500	5.000	II
M85049/5A3A1	MS17341N3A1	18	.375	.281	.875	1.125	1.125-18UNEF	.969	2.469	1.312	3.932	1.125	1.125	1.2500	5.000	II
M85049/5A4A1	MS17341N4A1	18	.281	.188	.750	1.125	1.125-18UNEF	.969	2.438	1.312	3.901	1.062	1.157	1.2500	5.000	II
M85049/4A12A1	MS17342N12A1	20	1.055	.930	1.546	1.375	1.250-18UNEF	1.281	3.121	1.438	4.896	2.125	1.371	1.3750	5.000	III
M85049/4A10A1	MS17342N10A1	20	1.000	.875	1.546	1.375	1.250-18UNEF	1.281	3.121	1.438	4.896	2.125	1.371	1.3750	5.000	III
M85049/4A11A1	MS17342N11A1	20	.900	.787	1.312	1.375	1.250-18UNEF	1.094	3.059	1.438	4.647	1.812	1.371	1.3750	5.000	III
M85049/3A11A1	MS17340N11A1	20	.828	.715	1.188	1.250	1.250-18UNEF	1.125	2.996	1.438	4.615	1.688	1.371	1.3750	5.000	I
M85049/4A9A1	MS17342N9A1	20	.750	.637	1.312	1.375	1.250-18UNEF	1.094	3.059	1.438	4.647	1.812	1.371	1.3750	5.000	III
M85049/5A7A1	MS17341N7A1	20	.699	.605	1.062	1.250	1.250-18UNEF	1.062	2.933	1.438	4.489	1.562	1.371	1.3750	5.000	II
M85049/5A9A1	MS17341N9A1	20	.605	.511	1.000	1.250	1.250-18UNEF	1.062	2.750	1.438	4.308	1.375	1.250	1.3750	5.000	II
M85049/3A12A1	MS17340N12A1	20	.562	.449	1.188	1.250	1.250-18UNEF	1.125	2.996	1.438	4.615	1.688	1.371	1.3750	5.000	I
M85049/5A8A1	MS17341N8A1	20	.455	.361	1.062	1.250	1.250-18UNEF	1.062	2.933	1.438	4.489	1.562	1.371	1.3750	5.000	II
M85049/4A14A1	MS17342N14A1	22	1.109	.984	1.546	1.625	1.375-18UNEF	1.281	3.121	1.562	4.896	2.125	1.371	1.5000	6.000	III
M85049/4A13A1	MS17342N13A1	22	1.000	.875	1.546	1.625	1.375-18UNEF	1.281	3.121	1.562	4.896	2.125	1.371	1.5000	6.000	III
M85049/3A14A1	MS17340N14A1	22	.900	.787	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	6.000	I
M85049/5A14A1	MS17341N14A1	22	.828	.715	1.188	1.406	1.375-18UNEF	1.094	2.996	1.562	4.306	1.375	1.250	1.5000	6.000	II
M85049/3A15A1	MS17340N15A1	22	.805	.692	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	6.000	I
M85049/3A13A1	MS17340N13A1	22	.750	.637	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	6.000	I
M85049/5A10A1	MS17341N10A1	22	.562	.449	1.188	1.406	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	6.000	II
M85049/5A11A1	MS17341N11A1	22	.405	.311	1.000	1.375	1.375-18UNEF	1.062	2.750	1.562	4.306	1.375	1.250	1.5000	6.000	II

All dimensions for reference only. *Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (plug)

MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A (Plated) 0.1P-0.2L Double Stub	O Approx.	Type
			Max Dia	Min Dia												
M85049/4A18A1	MS17342N18A1	24	1.375	1.250	2.000	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.625	1.309	1.7500	6.000	III
M85049/4A16A1	MS17342N16A1	24	1.310	1.185	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	6.000	III
M85049/4A17A1	MS17342N17A1	24	1.230	1.105	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	6.000	III
M85049/4A15A1	MS17342N15A1	24	1.180	1.055	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	6.000	III
M85049/3A18A1	MS17340N18A1	24	1.109	.984	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	6.000	I
M85049/3A16A1	MS17340N16A1	24	1.055	.930	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	6.000	I
M85049/3A17A1	MS17340N17A1	24	1.000	.675	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	6.000	I
M85049/5A16A1	MS17341N16A1	24	.970	.857	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	6.000	II
M85049/5A13A1	MS17341N13A1	24	.900	.787	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	6.000	II
M85049/5A19A1	MS17340N19A1	24	.880	.755	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	6.000	I
M85049/5A17A1	MS17341N17A1	24	.828	.715	1.188	1.625	1.625-18UNEF	1.094	2.954	1.812	4.542	1.688	1.301	1.7500	6.000	II
M85049/5A18A1	MS17341N18A1	24	.805	.692	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	6.000	II
M85049/5A15A1	MS17341N15A1	24	.750	.637	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	6.000	II
M85049/5A14A1	MS17341N14A1	24	.630	.517	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	6.000	II
M85049/4A20A1	MS17342N20A1	28	1.531	1.406	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.000	6.000	III
M85049/4A19A1	MS17342N19A1	28	1.445	1.320	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.000	6.000	III
M85049/4A21A1	MS17342N21A1	28	1.375	1.250	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.000	6.000	III
M85049/4A22A1	MS17340N22A1	28	1.310	1.185	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.000	6.000	I
M85049/3A21A1	MS17340N21A1	28	1.230	1.105	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.000	6.000	I
M85049/3A20A1	MS17340N20A1	28	1.180	1.055	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.000	6.000	I
M85049/5A20A1	MS17341N20A1	28	1.109	.984	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.000	6.000	II
M85049/5A24A1	MS17341N24A1	28	1.100	.875	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.000	6.000	II
M85049/5A23A1	MS17341N23A1	28	.970	.857	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.000	6.000	II
M85049/5A19A1	MS17341N19A1	28	.880	.755	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.000	6.000	II
M85049/5A21A1	MS17341N21A1	28	.750	.637	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.000	6.000	II
M85049/5A26A1	MS17341N26A1	28	.680	.567	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.000	6.000	II
M85049/5A25A1	MS17341N25A1	28	.530	.436	1.000	1.812	1.875-16UN	1.062	2.875	2.062	4.431	1.375	1.375	2.000	6.000	II
M85049/5A22A1	MS17341N22A1	28	.375	.281	.875	1.875	1.875-16UN	.969	2.766	2.062	4.229	1.125	1.422	2.000	6.000	II
M85049/4A23A1	MS17342N23A1	32	1.828	1.700	2.438	2.312	2.0625-16UN	1.391	3.500	2.312	5.385	3.171	1.375	2.2500	6.000	III
M85049/4A25A1	MS17342N25A1	32	1.730	1.605	2.438	2.312	2.0625-16UN	1.391	3.500	2.312	5.385	3.171	1.375	2.2500	6.000	III
M85049/4A22A1	MS17342N22A1	32	1.656	1.531	2.250	2.312	2.0625-16UN	1.281	3.308	2.312	5.083	2.953	1.370	2.2500	6.000	III
M85049/4A24A1	MS17342N24A1	32	1.562	1.437	2.250	2.312	2.0625-16UN	1.281	3.308	2.312	5.083	2.953	1.370	2.2500	6.000	III
M85049/3A24A1	MS17340N24A1	32	1.531	1.406	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	6.000	I
M85049/3A23A1	MS17340N23A1	32	1.445	1.320	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	6.000	I
M85049/3A25A1	MS17340N25A1	32	1.375	1.250	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	6.000	I
M85049/5A28A1	MS17341N28A1	32	1.230	1.150	1.780	2.062	2.0625-16UN	1.281	3.184	2.312	4.959	2.469	1.372	2.2500	6.000	II
M85049/5A35A1	MS17341N35A1	32	1.130	1.005	1.780	2.062	2.0625-16UN	1.281	3.184	2.312	4.959	2.469	1.372	2.2500	6.000	II
M85049/5A31A1	MS17341N31A1	32	1.109	.984	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	6.000	II
M85049/5A27A1	MS17341N27A1	32	1.055	.930	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	6.000	II
M85049/5A32A1	MS17341N32A1	32	.970	.857	1.312	2.062	2.0625-16UN	1.094	3.059	2.312	4.647	1.812	1.371	2.2500	6.000	II
M85049/5A30A1	MS17341N30A1	32	.880	.755	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	6.000	II
M85049/5A29A1	MS17341N29A1	32	.750	.637	1.312	2.062	2.0625-16UN	1.094	3.059	2.312	4.647	1.812	1.371	2.2500	6.000	II

All dimensions for reference only. * Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (plug)

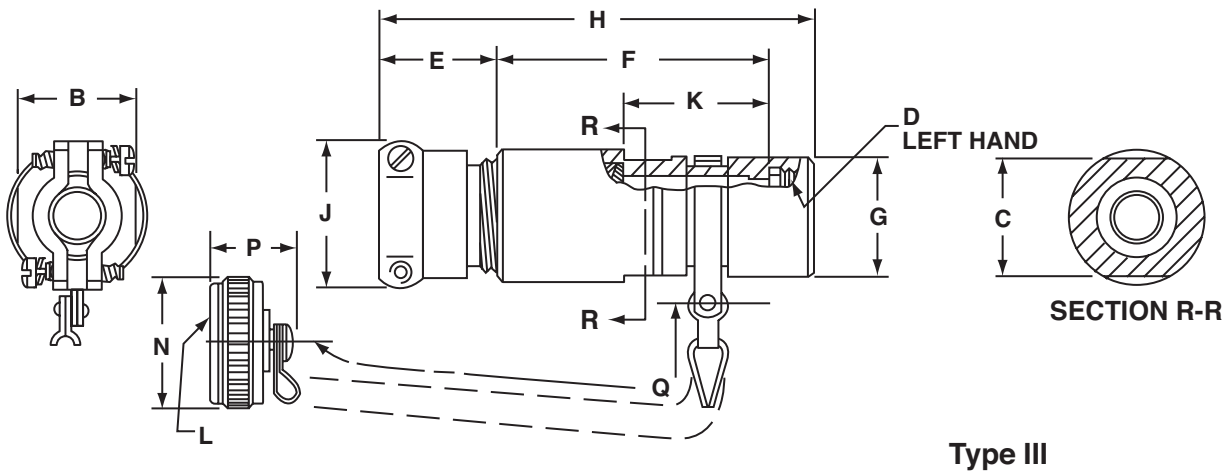
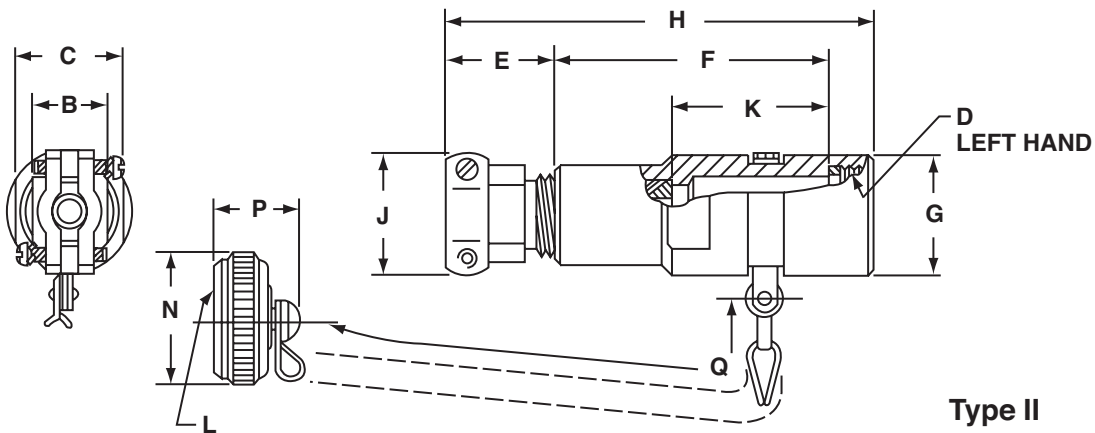
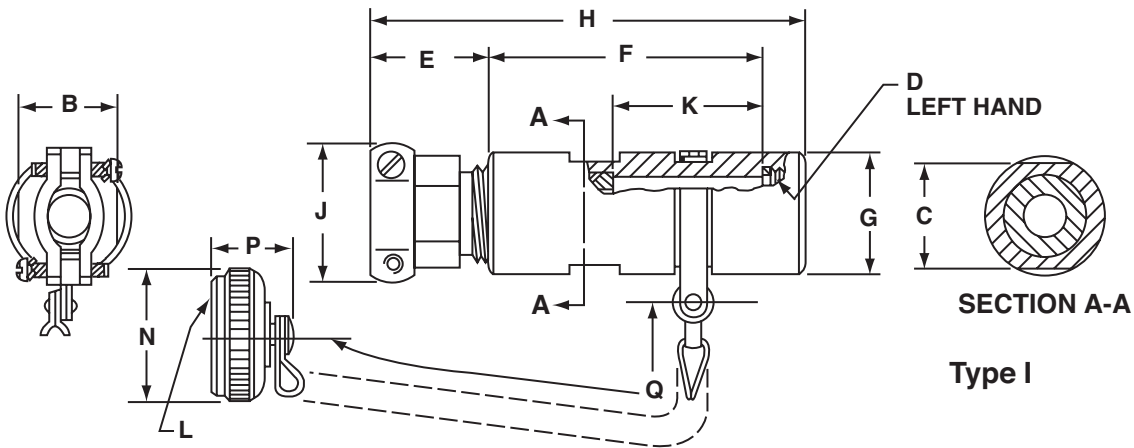
MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A (Plated) 0.1P-0.2L Double Stub	Q Approx.	Type
			Max Dia	Min Dia												
M85049/5A34A1	MS17341N34A1	32	.530	.436	1.000	2.000	2.0625-16UN	1.062	2.875	2.312	4.431	1.375	1.375	2.2500	6.000	II
M85049/5A33A1	MS17341N33A1	32	.375	.281	.875	2.062	2.0625-16UN	.969	2.813	2.312	4.276	1.125	1.469	2.2500	6.000	II
M85049/4A30A1	MS17342N30A1	36	2.062	1.917	2.750	2.500	2.3125-16UN	1.391	3.500	2.562	5.385	3.375	1.375	2.5000	6.000	III
M85049/4A29A1	MS17342N29A1	36	1.984	1.859	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	6.000	III
M85049/4A26A1	MS17342N26A1	36	1.900	1.775	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	6.000	III
M85049/4A28A1	MS17342N28A1	36	1.825	1.799	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	6.000	III
M85049/4A27A1	MS17342N27A1	36	1.730	1.605	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	6.000	III
M85049/3A26A1	MS17340N26A1	36	1.656	1.531	2.250	2.312	2.3125-16UN	1.281	3.308	2.562	5.083	2.953	1.370	2.5000	6.000	I
M85049/3A27A1	MS17340N27A1	36	1.562	1.437	2.250	2.312	2.3125-16UN	1.281	3.308	2.562	5.083	2.953	1.370	2.5000	6.000	I
M85049/5A40A1	MS17341N40A1	36	1.445	1.320	2.000	2.312	2.3125-16UN	1.281	3.246	2.562	5.021	2.625	1.371	2.5000	6.000	II
M85049/5A38A1	MS17341N38A1	36	1.375	1.250	2.000	2.312	2.3125-16UN	1.281	3.246	2.562	5.021	2.625	1.371	2.5000	6.000	II
M85049/5A36A1	MS17341N36A1	36	1.310	1.185	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	6.000	II
M85049/5A42A1	MS17341N42A1	36	1.230	1.105	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	6.000	II
M85049/5A39A1	MS17341N39A1	36	1.180	1.055	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	6.000	II
M85049/5A37A1	MS17341N37A1	36	1.109	.984	1.546	2.312	2.3125-16UN	1.281	3.121	2.562	4.896	2.125	1.371	2.5000	6.000	II
M85049/5A41A1	MS17341N41A1	36	.970	.857	1.312	2.250	2.3125-16UN	1.094	3.063	2.562	4.651	1.812	1.375	2.5000	6.000	II
M85049/4A31A1	MS17342N31A1	40	2.375	2.230	3.000	2.812	2.625-16UN	1.391	3.609	2.875	5.682	3.625	1.421	2.7500	6.000	III
M85049/4A32A1	MS17342N32A1	40	2.250	2.105	2.875	2.625	2.625-16UN	1.391	3.609	2.875	5.682	3.500	1.421	2.7500	6.000	III
M85049/4A33A1	MS17342N33A1	40	2.145	2.000	2.750	2.625	2.625-16UN	1.391	3.547	2.875	5.620	3.375	1.422	2.7500	6.000	III
M85049/4A34A1	MS17342N34A1	40	2.062	1.917	2.750	2.625	2.625-16UN	1.391	3.547	2.875	5.620	3.375	1.422	2.7500	6.000	III
M85049/5A43A1	MS17341N43A1	40	1.940	1.815	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.354	3.171	2.156	2.7500	6.000	II
M85049/5A44A1	MS17341N44A1	40	1.825	1.700	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.354	3.171	2.156	2.7500	6.000	II
M85049/5A45A1	MS17341N45A1	40	1.730	1.605	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.354	3.171	2.156	2.7500	6.000	II
M85049/5A46A1	MS17341N46A1	40	1.656	1.531	2.250	2.750	2.625-16UN	1.281	4.094	2.875	6.037	2.953	2.156	2.7500	6.000	II

All dimensions for reference only. *Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (receptacle)



MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (receptacle)

MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A 0.1P-0.2L Double Stub	N Dia Max	P Max	Q Approx.	Type
			Max Dia	Min Dia														
M85049/4A1B1	MS17342N1B1	12	.530	.436	1.000	.812	.750-20UNEF	1.062	2.719	.938	4.275	1.375	1.219	.8750	2.719	.765	5.000	III
M85049/4A2B1	MS17342N2B1	12	.500	.406	.875	.938	.750-20UNEF	.969	2.215	.938	3.678	1.125	.871	.8750	2.719	.765	5.000	III
M85049/4A3B1	MS17342N3B1	12	.405	.311	1.000	.812	.750-20UNEF	1.062	2.719	.938	4.275	1.375	1.219	.8750	1.094	.765	5.000	III
M85049/3A1B1	MS17340N1B1	12	.375	.281	.750	.812	.750-20UNEF	.969	1.902	.938	3.365	1.062	.821	.8750	1.094	.765	5.000	I
M85049/3A2B1	MS17340N2B1	12	.281	.188	.750	.812	.750-20UNEF	.969	1.902	.938	3.365	1.062	.821	.8750	1.094	.765	5.000	I
M85049/5A1B1	MS17341N1B1	12	.250	.156	.625	.812	.750-20UNEF	.906	1.782	.938	3.182	.938	.563	.8750	1.094	.765	5.000	II
M85049/4A5B1	MS17342N5B1	14	.625	.531	1.062	1.125	.875-20UNEF	1.062	2.933	1.062	4.489	1.562	1.371	1.0000	1.094	.765	5.000	III
M85049/4A4B1	MS17342N4B1	14	.605	.511	1.000	1.062	.875-20UNEF	1.062	2.621	1.062	4.177	1.375	1.121	1.0000	1.094	.765	5.000	III
M85049/4A6B1	MS17342N6B1	14	.530	.436	1.000	1.062	.875-20UNEF	1.062	2.621	1.062	4.177	1.375	1.121	1.0000	1.094	.765	5.000	III
M85049/3A3B1	MS17340N3B1	14	.438	.344	.875	.938	.875-20UNEF	.969	2.215	1.062	3.678	1.125	.871	1.0000	1.219	.765	5.000	I
M85049/4A7B1	MS17342N7B1	14	.405	.311	1.000	1.062	.875-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.0000	1.344	.765	5.000	III
M85049/3A4B1	MS17340N4B1	16	.605	.511	1.000	1.062	1.000-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.1250	1.344	.980	5.000	I
M85049/3A5B1	MS17340N5B1	16	.530	.436	1.000	1.062	1.000-20UNEF	1.062	2.621	1.188	4.177	1.375	1.121	1.1250	1.344	.980	5.000	I
M85049/3A6B1	MS17340N6B1	16	.405	.311	1.000	1.062	1.000-20UNEF	1.062	2.621	1.312	4.177	1.375	1.121	1.1250	1.344	.980	5.000	I
M85049/4A8B1	MS17342N8B1	18	.828	.715	1.188	1.250	1.125-18UNEF	1.094	2.996	1.312	4.584	1.688	1.343	1.2500	1.469	.980	5.000	III
M85049/3A8B1	MS17340N8B1	18	.699	.605	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	1.469	.980	5.000	I
M85049/3A7B1	MS17340N7B1	18	.625	.531	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	1.469	.980	5.000	I
M85049/5A5B1	MS17341N5B1	18	.605	.511	1.000	1.125	1.125-18UNEF	1.062	2.621	1.312	4.177	1.375	1.121	1.2500	2.719	.980	5.000	II
M85049/5A6B1	MS17341N6B1	18	.530	.436	1.000	1.125	1.125-18UNEF	1.062	2.621	1.312	4.177	1.375	1.121	1.2500	2.719	.980	5.000	II
M85049/3A9B1	MS17340N9B1	18	.500	.406	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	1.469	.980	5.000	I
M85049/3A10B1	MS17340N10B1	18	.455	.361	1.062	1.125	1.125-18UNEF	1.062	2.933	1.312	4.489	1.562	1.371	1.2500	1.469	.980	5.000	I
M85049/5A2B1	MS17341N2B1	18	.375	.281	.750	1.125	1.125-18UNEF	.969	2.438	1.312	4.901	1.062	1.157	1.2500	2.719	.980	5.000	II
M85049/5A3B1	MS17341N3B1	18	.375	.281	.875	1.125	1.125-18UNEF	.969	2.469	1.312	4.932	1.125	1.125	1.2500	2.719	.980	5.000	II
M85049/5A4B1	MS17341N4B1	18	.281	.188	.750	1.125	1.125-18UNEF	.969	2.438	1.312	4.901	1.062	1.157	1.2500	2.719	.980	5.000	II
M85049/4A12B1	MS17342N12B1	20	1.055	.930	1.546	1.375	1.250-18UNEF	1.281	3.121	1.438	4.896	2.125	1.371	1.3750	2.719	.980	5.000	III
M85049/4A10B1	MS17342N10B1	20	1.000	.875	1.546	1.375	1.250-18UNEF	1.281	3.121	1.438	4.896	2.125	1.371	1.3750	2.719	.980	6.000	III
M85049/4A11B1	MS17342N11B1	20	.900	.787	1.312	1.375	1.250-18UNEF	1.094	3.059	1.438	4.647	1.812	1.371	1.3750	2.719	.980	5.000	III
M85049/3A11B1	MS17340N11B1	20	.828	.715	1.188	1.250	1.250-18UNEF	1.125	2.996	1.438	4.615	1.688	1.371	1.3750	1.562	.980	5.000	I
M85049/4A9B1	MS17342N9B1	20	.750	.637	1.312	1.375	1.250-18UNEF	1.094	3.059	1.438	4.647	1.812	1.371	1.3750	2.719	.980	5.000	III
M85049/5A7B1	MS17341N7B1	20	.699	.605	1.062	1.250	1.250-18UNEF	1.062	2.933	1.438	4.489	1.562	1.250	1.3750	2.719	.980	5.000	II
M85049/5A9B1	MS17341N9B1	20	.605	.511	1.000	1.250	1.250-18UNEF	1.062	2.750	1.438	4.306	1.375	1.371	1.3750	1.562	.980	5.000	II
M85049/3A12B1	MS17340N12B1	20	.562	.449	1.188	1.250	1.250-18UNEF	1.125	2.996	1.438	4.615	1.688	1.371	1.3750	1.562	.980	5.000	I
M85049/5A8B1	MS17341N8B1	20	.455	.361	1.062	1.250	1.250-18UNEF	1.062	2.933	1.438	4.489	1.562	1.371	1.3750	1.562	.980	5.000	II
M85049/4A14B1	MS17342N14B1	22	1.109	.984	1.546	1.625	1.375-18UNEF	1.281	3.121	1.562	4.896	2.125	1.371	1.5000	1.562	.980	6.000	III
M85049/4A13B1	MS17342N13B1	22	1.000	.875	1.546	1.625	1.375-18UNEF	1.281	3.121	1.562	4.896	2.125	1.371	1.5000	1.562	.980	6.000	III
M85049/3A14B1	MS17340N14B1	22	.900	.787	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	1.688	.980	6.000	I
M85049/5A12B1	MS17341N12B1	22	.828	.715	1.188	1.406	1.375-18UNEF	1.094	2.996	1.562	4.306	1.375	1.250	1.5000	1.688	.980	6.000	II
M85049/3A15B1	MS17340N15B1	22	.805	.692	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	1.688	.980	6.000	I
M85049/3A13B1	MS17340N13B1	22	.750	.637	1.312	1.375	1.375-18UNEF	1.094	3.059	1.562	4.647	1.812	1.371	1.5000	1.688	.980	6.000	I
M85049/5A10B1	MS17341N10B1	22	.562	.449	1.188	1.406	1.375-18UNEF	1.094	2.996	1.562	4.584	1.688	1.343	1.5000	2.719	.980	6.000	II
M85049/5A11B1	MS17341N11B1	22	.405	.311	1.000	1.375	1.375-18UNEF	1.062	2.750	1.562	4.306	1.375	1.250	1.5000	2.719	.980	6.000	II

All dimensions for reference only. *Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (receptacle)

MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A 0.1P-0.2L Double Stub	N Dia Max	P Max	Q Approx.	Type
			Max Dia	Min Dia														
MS85049/4A18B1	MS17342N18B1	24	1.375	1.250	2.000	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.625	1.309	1.7500	2.719	.980	6.000	III
MS85049/4A16B1	MS17342N16B1	24	1.310	1.185	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	2.719	.980	6.000	III
MS85049/4A17B1	MS17342N17B1	24	1.230	1.105	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	2.719	.980	6.000	III
MS85049/4A15B1	MS17342N15B1	24	1.180	1.055	1.780	1.875	1.625-18UNEF	1.281	3.184	1.812	4.959	2.469	1.372	1.7500	2.719	.980	6.000	III
MS85049/3A18B1	MS17340N18B1	24	1.109	.984	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	1.938	.980	6.000	I
MS85049/3A16B1	MS17340N16B1	24	1.055	.930	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	1.938	.980	6.000	I
MS85049/3A17B1	MS17340N17B1	24	1.000	.675	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	1.938	.980	6.000	I
MS85049/5A16B1	MS17341N16B1	24	.970	.857	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	2.719	.980	6.000	II
MS85049/5A13B1	MS17341N13B1	24	.900	.787	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	2.719	.980	6.000	II
MS85049/3A19B1	MS17340N19B1	24	.880	.755	1.546	1.625	1.625-18UNEF	1.281	3.121	1.812	4.896	2.125	1.371	1.7500	1.938	.980	6.000	I
MS85049/5A17B1	MS17341N17B1	24	.828	.715	1.188	1.625	1.625-18UNEF	1.094	2.954	1.812	4.542	1.688	1.301	1.7500	2.719	.980	6.000	II
MS85049/5A18B1	MS17341N18B1	24	.805	.692	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	2.719	.980	6.000	II
MS85049/5A15B1	MS17341N15B1	24	.750	.637	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	2.719	.980	6.000	II
MS85049/5A14B1	MS17341N14B1	24	.630	.517	1.312	1.625	1.625-18UNEF	1.094	3.059	1.812	4.647	1.812	1.371	1.7500	2.719	.980	6.000	II
MS85049/4A20B1	MS17342N20B1	28	1.531	1.406	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.0000	2.719	.980	6.000	III
MS85049/4A19B1	MS17342N19B1	28	1.445	1.320	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.0000	2.719	.980	6.000	III
MS85049/4A21B1	MS17342N21B1	28	1.375	1.250	2.000	2.062	1.875-16UN	1.281	3.246	2.062	5.021	2.625	1.371	2.0000	2.719	.980	6.000	III
MS85049/3A22B1	MS17340N22B1	28	1.310	1.185	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.0000	2.219	.980	6.000	I
MS85049/3A21B1	MS17340N21B1	28	1.230	1.105	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.0000	2.219	.980	6.000	I
MS85049/3A20B1	MS17340N20B1	28	1.180	1.055	1.780	1.875	1.875-16UN	1.281	3.184	2.062	4.959	2.469	1.372	2.0000	2.219	.980	6.000	I
MS85049/5A20B1	MS17341N20B1	28	1.109	.984	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.0000	2.279	.980	6.000	II
MS85049/5A24B1	MS17341N24B1	28	1.000	.875	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.0000	2.279	.980	6.000	II
MS85049/5A23B1	MS17341N23B1	28	.970	.857	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.0000	2.719	.980	6.000	II
MS85049/5A19B1	MS17341N19B1	28	.880	.755	1.546	1.875	1.875-16UN	1.281	3.121	2.062	4.896	2.125	1.371	2.0000	2.719	.980	6.000	II
MS85049/5A19B1	MS17341N21B1	28	.750	.637	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.0000	2.719	.980	6.000	II
MS85049/5A26B1	MS17341N26B1	28	.680	.567	1.312	1.875	1.875-16UN	1.094	3.059	2.062	4.647	1.812	1.371	2.0000	2.219	.980	6.000	II
MS85049/5A25B1	MS17341N25B1	28	.530	.436	1.000	1.812	1.875-16UN	1.062	2.875	2.062	4.431	1.375	1.375	2.0000	2.219	.980	6.000	II
MS85049/5A22B1	MS17341N22B1	28	.375	.281	.875	1.875	1.875-16UN	.969	2.766	2.062	4.229	1.125	1.422	2.0000	2.219	.980	6.000	II
MS85049/4A23B1	MS17342N23B1	32	1.828	1.700	2.438	2.312	2.0625-16UN	1.391	3.500	2.312	5.385	3.171	1.375	2.2500	2.469	.980	6.000	III
MS85049/4A25B1	MS17342N25B1	32	1.730	1.605	2.438	2.312	2.0625-16UN	1.391	3.500	2.312	5.385	3.171	1.375	2.2500	2.469	.980	6.000	III
MS85049/4A22B1	MS17342N22B1	32	1.656	1.531	2.250	2.312	2.0625-16UN	1.281	3.308	2.312	5.083	2.953	1.370	2.2500	2.469	.980	6.000	III
MS85049/4A24B1	MS17342N24B1	32	1.562	1.437	2.250	2.312	2.0625-16UN	1.281	3.308	2.312	5.083	2.953	1.370	2.2500	2.469	.980	6.000	III
MS85049/3A24B1	MS17340N24B1	32	1.531	1.406	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	2.469	.980	6.000	I
MS85049/3A23B1	MS17340N23B1	32	1.445	1.320	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	2.469	.980	6.000	I
MS85049/3A25B1	MS17340N25B1	32	1.375	1.250	2.000	2.062	2.0625-16UN	1.281	3.246	2.312	5.021	2.625	1.371	2.2500	2.469	.980	6.000	I
MS85049/5A28B1	MS17341N28B1	32	1.230	1.150	1.780	2.062	2.0625-16UN	1.281	3.184	2.312	4.959	2.469	1.372	2.2500	2.469	.980	6.000	II
MS85049/5A35B1	MS17341N35B1	32	1.130	1.005	1.780	2.062	2.0625-16UN	1.281	3.184	2.312	4.959	2.469	1.372	2.2500	2.469	.980	6.000	II
MS85049/5A31B1	MS17341N31B1	32	1.109	.984	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	2.469	.980	6.000	II
MS85049/5A27B1	MS17341N27B1	32	1.055	.930	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	2.469	.980	6.000	II
MS85049/5A32B1	MS17341N32B1	32	.970	.858	1.312	2.062	2.0625-16UN	1.094	3.059	2.312	4.647	1.812	1.371	2.2500	2.469	.980	6.000	II
MS85049/5A30B1	MS17341N30B1	32	.880	.755	1.546	2.062	2.0625-16UN	1.281	3.121	2.312	4.896	2.125	1.371	2.2500	2.469	.980	6.000	II

All dimensions for reference only. *Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

MIL-DTL-22992, QWLD ACCESSORIES

M85049

cable sealing adapters (receptacle)

MS Part Number*	Superseded MS Part Number	Used With Shell Size	Cable Range		B +.000 -.010	C +.000 -.010	D Thread Class 2B-LH	E Free Length Max	F +.010 -.020	G Dia +.010 -.020	H Max	J ±.031	K +.015 -.025	L Thread Class 2A 0.1P-0.2L Double Stub	N Dia Max	P Max	Q Approx.	Type
			Max Dia	Min Dia														
M85049/5A29B1	MS17341N29B1	32	.750	.637	1.312	2.062	2.0625-16UN	1.094	3.059	2.312	4.647	1.612	1.371	2.2500	2.469	.980	6.000	II
M85049/5A34B1	MS17341N34B1	32	.530	.436	1.000	2.000	2.0625-16UN	1.062	2.875	2.312	4.431	1.375	1.375	2.2500	2.469	.980	6.000	II
M85049/5A53B1	MS17341N33B1	32	.375	.281	.875	2.062	2.0625-16UN	.969	2.813	2.312	4.276	1.125	1.469	2.2500	2.469	.980	6.000	II
M85049/4A30A1	MS17342N30B1	36	2.062	1.917	2.750	2.500	2.3125-16UN	1.391	3.500	2.562	5.385	3.375	1.375	2.5000	2.719	.980	6.000	III
M85049/4A29B1	MS17342N29B1	36	1.984	1.859	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	2.719	.980	6.000	III
M85049/4A26B1	MS17342N26B1	36	1.900	1.775	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	2.719	.980	6.000	III
M85049/4A28B1	MS17342N28B1	36	1.825	1.700	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	2.719	.980	6.000	III
M85049/4A27B1	MS17342N27B1	36	1.730	1.605	2.438	2.500	2.3125-16UN	1.391	3.469	2.562	5.354	3.171	1.344	2.5000	2.719	.980	6.000	III
M85049/3A26B1	MS17340N26B1	36	1.656	1.531	2.250	2.312	2.3125-16UN	1.281	3.308	2.562	5.083	2.953	1.370	2.5000	2.719	.980	6.000	I
M85049/3A27B1	MS17340N27B1	36	1.562	1.437	2.250	2.312	2.3125-16UN	1.281	3.308	2.562	5.083	2.953	1.370	2.5000	2.719	.980	6.000	I
M85049/5A40B1	MS17341N40B1	36	1.445	1.320	2.000	2.312	2.3125-16UN	1.281	3.246	2.562	5.021	2.625	1.371	2.5000	2.719	.980	6.000	II
M85049/5A38B1	MS17341N38B1	36	1.375	1.250	2.000	2.312	2.3125-16UN	1.281	3.246	2.562	5.021	2.625	1.371	2.5000	2.719	.980	6.000	II
M85049/5A36B1	MS17341N36B1	36	1.310	1.185	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	2.719	.980	6.000	II
M85049/5A42B1	MS17341N42B1	36	1.230	1.105	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	2.719	.980	6.000	II
M85049/5A39B1	MS17341N39B1	36	1.180	1.055	1.780	2.312	2.3125-16UN	1.281	3.184	2.562	4.959	2.469	1.372	2.5000	2.719	.980	6.000	II
M85049/5A37B1	MS17341N37B1	36	1.109	.984	1.546	2.312	2.3125-16UN	1.281	3.121	2.562	4.896	2.125	1.371	2.5000	2.719	.980	6.000	II
M85049/5A41B1	MS17341N41B1	36	.970	.857	1.312	2.250	2.3125-16UN	1.094	3.063	2.562	4.651	1.812	1.375	2.5000	2.719	.980	6.000	II
M85049/4A31B1	MS17342N31B1	40	2.375	2.230	3.000	2.812	2.625-16UN	1.391	3.609	2.875	5.682	3.625	1.421	2.7500	2.969	.980	6.000	III
M85049/4A32B1	MS17342N32B1	40	2.250	2.105	2.875	2.625	2.625-16UN	1.391	3.609	2.875	5.682	3.500	1.421	2.7500	2.969	.980	6.000	III
M85049/4A33B1	MS17342N33B1	40	2.145	2.000	2.750	2.625	2.625-16UN	1.391	3.547	2.875	5.620	3.375	1.422	2.7500	2.969	.980	6.000	III
M85049/4A34B1	MS17342N34B1	40	2.062	1.917	2.750	2.625	2.625-16UN	1.391	3.547	2.875	5.620	3.375	1.422	2.7500	2.969	.980	6.000	III
M85049/5A43B1	MS17341N43B1	40	1.940	1.815	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.334	3.171	2.156	2.7500	2.969	.980	6.000	II
M85049/5A44B1	MS17341N44B1	40	1.825	1.700	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.334	3.171	2.156	2.7500	2.969	.980	6.000	II
M85049/5A45B1	MS17341N45B1	40	1.730	1.605	2.438	2.750	2.625-16UN	1.391	4.281	2.875	6.334	3.171	2.156	2.7500	2.969	.980	6.000	II
M85049/5A46B1	MS17341N46B1	40	1.656	1.531	2.250	2.625	2.625-16UN	1.281	4.094	2.875	6.057	2.953	2.156	2.7500	2.969	.980	6.000	II

All dimensions for reference only. *Ordering procedure: Locate shell size needed (Column 4); select cable diameter range to be accommodated within the shell size (column 5); order by either MS part number (column 1). MS numbers shown are non-conductive finish. To order conductive finish, substitute "W" for "A" in the part number listed.

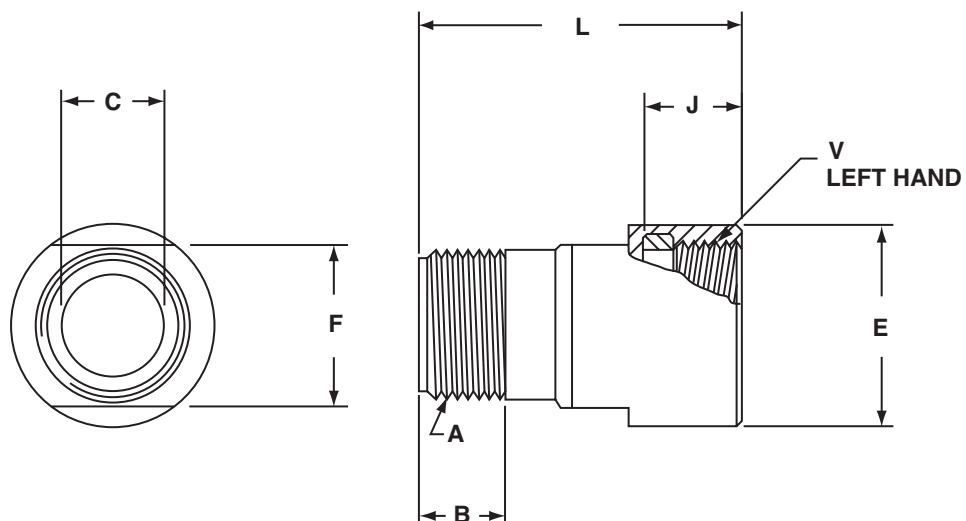
MIL-DTL-22992, QWLD ACCESSORIES

adapters cable clamp

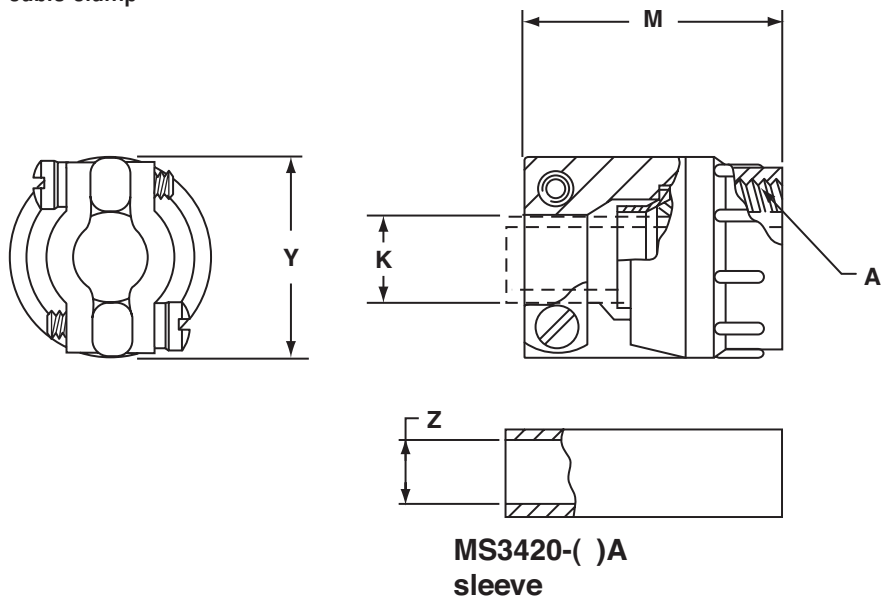
110-4007-XX(size)

03 for Conductive OD

04 for Hard Coat Grey Anodized



MS3057-()
cable clamp



MIL-DTL-22992, QWLD ACCESSORIES

110-4007-XXXX adapters

MS3057 cable clamp

Shell Size	Adapters	MS Part Number	A Thread Class 2A (Plated)	B Min Full Thd	C Dia +.000 - .010	E +.010 - .020	F ±.010	J +.010 - .000	K Dia		L ±.010	M Max	V Thread Class 2B-LH	Y Max
									Free	Closed				
12	110-4007-12XX	MS3057-4C	.625-24UNEF	.422	.386	.875	.688	.484	.302	.094	1.609	1.375	.750-20UNEF	.906
14	110-4007-14XX	MS3057-6C	.750-20UNEF	.422	.500	1.000	.812	.484	.428	.230	1.609	1.375	.875-20UNEF	1.031
16	110-4007-16XX	MS3057-8C	.875-20UNEF	.422	.625	1.188	.938	.481	.515	.316	1.609	1.375	1.000-20UNEF	1.125
18	110-4007-18XX	MS3057-10C	1.000-20UNEF	.422	.752	1.312	1.062	.481	.614	.378	1.609	1.437	1.125-18UNEF	1.234
20	110-4007-20XX	MS3057-12C	1.1875-18UNEF	.422	.891	1.438	1.250	.481	.738	.445	1.609	1.437	1.250-18UNEF	1.484
22	110-4007-22XX	MS3057-12C	1.1875-18UNEF	.422	.891	1.562	1.250	.481	.738	.445	1.609	1.437	1.375-18UNEF	1.484
24	110-4007-24XX	MS3057-16C	1.4375-18UNEF	.422	1.111	1.812	1.500	.481	.926	.611	1.609	1.562	1.625-18UNEF	1.671
28	110-4007-28XX	MS3057-16C	1.4375-18UNEF	.422	1.111	2.062	1.500	.481	.926	.611	1.781	1.562	1.875-16UN	1.671
32	110-4007-32XX	MS3057-20C	1.750-18UNS	.484	1.422	2.250	1.875	.481	1.200	.922	1.781	1.812	2.0625-16UNS	2.188
36	110-4007-36XX	MS3057-24C	2.000-18UNS	.562	1.672	2.500	2.125	.481	1.363	.922	1.781	2.062	2.3125-16UNS	2.344
40	110-4007-40XX	MS3057-28C	2.250-16UN	.562	1.914	2.812	2.375	.672	1.611	1.180	2.032	2.062	2.625-16UN	2.594

All dimensions for reference only.

* To attach the cable clamp to the left hand accessory threads of QWLD connectors, adapter LexTM3... is needed. Order this proprietary adapter from column 2 and suffix the part number with the finish desired, listed in the finish chart below.

**Order MS clamp (column 3) to accommodate the cable type being used. Standard finish on the clamp is olive drab, cadmium plate.

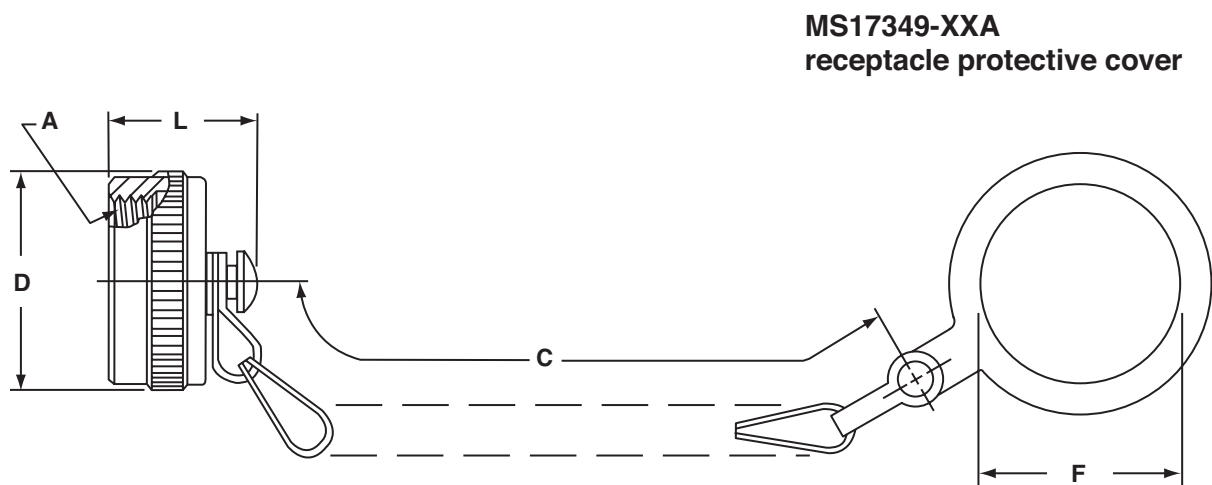
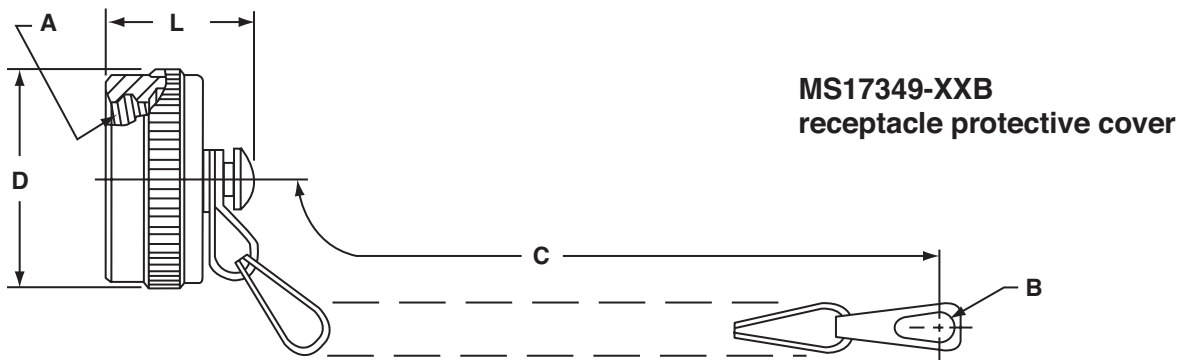
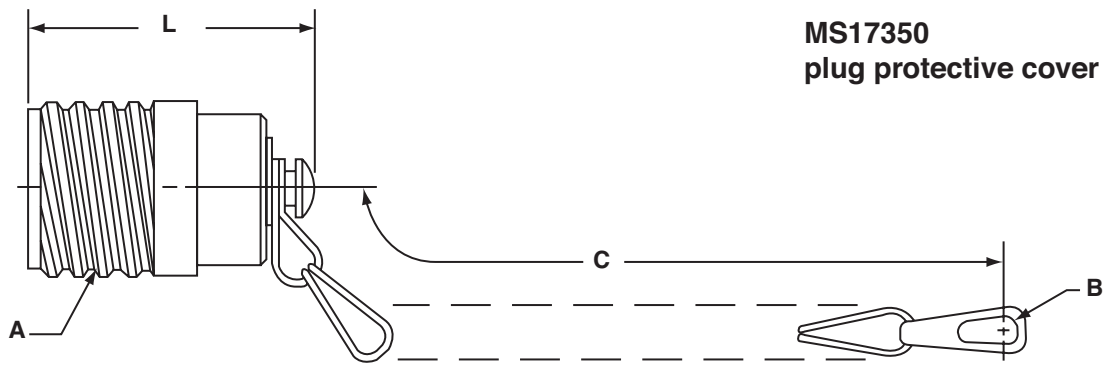
Shell Size	Sleeve ¹ MS Part Number	Z Dia	
		Free ±.016	Closed
12	MS3420-4A	.219	.010
14	MS3420-4A MS3420-6A	.219 .312	.020 .114
16	MS3420-6A MS3420-8A	.312 .438	.085 .222
18	MS3420-6A MS3420-10A	.312 .438	.085 .200
20	MS3420-8A MS3420-12A	.438 .541	.177 .270
22	MS3420-8A MS3420-12A	.438 .541	.177 .270
24	MS3420-8A MS3420-12A MS3420-16A	.438 .541 .750	.186 .260 .433
28	MS3420-8A MS3420-12A MS3420-16A	.438 .541 .750	.186 .260 .433
32	MS3420-12A MS3420-16A MS3420-20A	.541 .750 .938	.273 .442 .620
36	MS3420-16A MS3420-18A MS3420-24A	.750 .938 1.125	.358 .504 .682
40	MS3420-16A MS3420-20A MS3420-28A	.750 .938 1.250	.368 .514 .816

¹ Sleeve not supplied as part of assembly. Order separately by part number shown

MIL-DTL-22992

QWLD ACCESSORIES

protective covers



MIL-DTL-22992, QWLD ACCESSORIES

protective covers

Shell Size	Plug Protective Cover MS Part Number*	A Thread Class 2A (Plated) 0.1P-0.2L Double Stub	B +.010 -.005	C Approx.	L Max
12	MS17350-(-)	.8750	.156	5.000	1.500
14	MS17350-(-)	1.0000	.156	5.000	1.500
16	MS17350-(-)	1.1250	.156	5.000	1.500
18	MS17350-(-)	1.2500	.180	5.000	1.500
20	MS17350-(-)	1.3750	.180	5.000	1.500
22	MS17350-(-)	1.5000	.180	6.000	1.500
24	MS17350-(-)	1.7500	.180	6.000	1.500
28	MS17350-(-)	2.0000	.180	6.000	1.500
32	MS17350-(-)	2.2500	.209	6.000	1.500
36	MS17350-(-)	2.5000	.209	6.000	1.500
40	MS17350-(-)	2.7500	.209	6.000	1.500

* Order MS-approved covers as per coded part number example:

PART NUMBER			
MS17350	C	28	A
1	2	3	4

1. MS Number –

MS17350 designated plug protective cover
MS17349 designated receptacle protect cover

2. Cover Finish –

C for conductive, N for non-conductive.

3. Cover Size –

Shell size of connector with which cover is used.

4. Cover Type (MS17349 only) –

A – Washer Termination, used with:
MS17345 line (cable connecting) plug
MS17347 jam nut receptacle
MS17348 jam nut receptacle

B – Eyelet Termination - used with:
MS17343 wall mount receptacle
MS17346 box mount receptacle

Shell Size	Receptacle Protective Cover MS Part Number*	A Thread Class 2B 0.1P-0.2L Double Stub	B +.010 -.005	C Approx.	D Dia. Max	F +.010 -.000	L Max
12	MS17349-(-)B MS17349-(-)A	.8750	.156	5.000	1.094	1.016	.765
14	MS17349-(-)B MS17349-(-)A	1.0000	.156	5.000	1.219	1.141	.765
16	MS17349-(-)B MS17349-(-)A	1.1250	.156	5.000	1.344	1.266	.980
18	MS17349-(-)B MS17349-(-)A	1.2500	.180	5.000	1.469	1.391	.980
20	MS17349-(-)B MS17349-(-)A	1.3750	.180	5.000	1.562	1.516	.980
22	MS17349-(-)B MS17349-(-)A	1.5000	.180	6.000	1.688	1.641	.980
24	MS17349-(-)B MS17349-(-)A	1.7500	.180	6.000	1.938	1.891	.980
28	MS17349-(-)B MS17349-(-)A	2.0000	.180	6.000	2.219	2.141	.980
32	MS17349-(-)B MS17349-(-)A	2.2500	.209	6.000	2.469	2.391	.980
36	MS17349-(-)B MS17349-(-)A	2.5000	.209	6.000	2.719	2.641	.980
40	MS17349-(-)B MS17349-(-)A	2.7500	.209	6.000	2.969	2.891	.980

All dimensions for reference only.

Note: Protective covers are supplied with all M85049 style cable sealing adapters.

MIL-DTL-22992, QWLD

MS solder contacts

To ensure maximum corrosion protection, current carrying capacity and low millivolt drop, all MS-style solder contacts are treated with a heavy silver-plated finish. Contacts with gold plating may also be specified.

SOLDER CONTACTS*

PIN/ SOCKET	MATING END SIZE	WIRE BARREL SIZE	ALLOWABLE WIRE SIZE	TEST CURRENT** AMPS
Pin Socket	16 Long	16	16 18 20 22	13 10 7.5 5
Pin Socket	12	12	12 10	23 17
Pin Socket	8	8	8 10	46 33
Pin Socket	4	4	4 6	80 60
Pin Socket	0	0	0 1 2	150 125 100

* Solder Wells Unfilled

**Contact ratings as stated are test ratings only. The connector could 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.

Table I
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**

MS Service Rating	Nominal Distance		Standard Sea Level Conditions		Pressure Altitude† 50,000 feet		Pressure Altitude† 70,000 feet	
	Airspace	Creepage	Minimum Flash- over Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flash- over Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flash- over 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.

QWLD

solderless (crimp) contacts

To ensure maximum corrosion protection, current carrying capacity and low millivolt drop, our 16- and 12-socket contacts, which are built with copper alloys and silver-plated offer closed entry design. Crimp contacts are available for all MS insert layouts arrangements and bear a LexTM3 proprietary number. Contacts with gold plating may also be specified.

To place your order, please contact factory.

CRIMP CONTACTS*

PIN/ SOCKET	MATING END SIZE	WIRE BARREL SIZE	ALLOWABLE WIRE SIZE	REQUIRED WIRE ADAPTER SLEEVE	TEST CURRENT** AMPS
Pin	16 Long	16	16	–	13
Socket			18	–	10
			20	–	7.5
			22*	74696-6	5
Pin	12	12	12	–	23
Socket			10	–	17
Pin	8	8	8	–	46
Socket			10*	74696-1	33
Pin	4	4	4	–	80
Socket			6*	74696-2	60
Pin	0	0	0	–	150
Socket			2*	74696-2	100

* When using wire adapter sleeve shown.

**Contact ratings as stated are test ratings only. The connector could 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.

Table I
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**

MS Service Rating	Nominal Distance		Standard Sea Level Conditions		Pressure Altitude† 50,000 feet		Pressure Altitude† 70,000 feet	
	Airspace	Creepage	Minimum Flash- over Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flash- over Voltage AC (RMS)	Test Voltage AC (RMS)	Minimum Flash- over 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.

QWLD

application tools

Installation instructions (L-615) for LexTM3 QWLD Series Connectors are available upon request. Information about specialized application tools for crimping, inserting and removing crimp contacts used in these products are shown below.

CONTACT CRIMPING, INSERTION & REMOVAL TOOLS

CRIMPING TOOL	POSITIONER/TURRET	CONTACT SIZE	CONTACT STYLE
M22520/1-01	*	16	Pin & Socket
M22520/1-01	*	12	Pin & Socket
**	**	8	Pin & Socket
**	**	4	Pin & Socket
**	**	0	Pin & Socket

* Use Daniels Turret TH29-1 or Astro Tool Co. Turret 616266

**For appropriate crimp tool and positioner refer to Pico Crimping Tool Co.

LexTM3 Heavy Duty Cylindrical Connectors

QWL SERIES



wall mount receptacle



thru bulkhead receptacle



cable connecting plug



straight plug



box mount receptacle



flange mount plug



jam nut receptacle
(wall mount)



jam nut receptacle
(box mount)

LexTM3 QWL Series Connectors are purpose-built for compact, heavy-duty industrial use. These connectors are the choice for maximum performance in shipboard installations, as well as ground support power distribution where strength and reliability matters the most.

If military specs are not needed, but reliability under the most severe conditions is, this versatile series is your economical choice.

The connectors in this series are produced for:

- **EXTRAORDINARY SERVICE** – high strength aluminum shells with Alumilite 225* hard anodic finish and shock resistant resilient inserts.
- **DEPENDABLE OPERATION** – rugged double stub coupling threads, left hand accessory threads and simple single keyway mating.
- **ADAPTABLE** – both MS and custom insert patterns available for a large selection of multiconductor cables.

A full line of accessories is available for use with QWL Series connectors, including cable sealing, clamp adapters, protective covers, flange gaskets, and banding clamps.

For further information about LexTM3 QWL Series connectors, request catalog 12-053 or contact your local sales office.

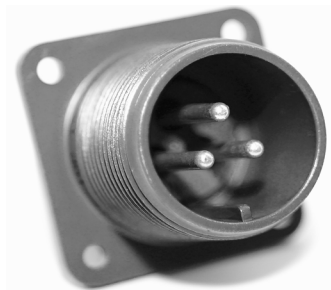
*Registered trademark of Aluminum Company of America



HEAVY DUTY CYLINDRICAL
MIL-DTL-5015, 3100 & 3400

LexTM3 Heavy Duty Cylindrical Connectors

MIL-DTL-5015, 3400



LexTM3 offers a wide variety of 5015 power connectors. These connectors are ideal for use in highly ruggedized applications, where power/signal has to be transmitted in an environment of extremely low or high temperatures, with high vibration and shock also present. Apart from providing mechanical protection to the contacts, the connectors offer the advantage of being light weight and easy to handle, which facilitates ease of mating/unmating.

- **HOUSING:** Aluminium alloy to provide high mechanical strength while ensuring light weight.
- **SURFACE FINISH:** Standard finish is olive drab chromate over cadmium, for corrosion resistance and use in extreme operating condition.
- **INSULATOR:** Standard insulator material is Polychloroprene, which provides high degree of insulation resistance, dielectric strength, ability to withstand shock, impact and vibration. Options include Silicon, Viton, and a flame-retardant halogen-free compound which has properties of low smoke and non-toxicity.
- **CONTACTS:** Copper base alloy - silver (or gold) plated, available in a range of current ratings from 10 amps to 150 amps. These offer excellent conductivity under severe service conditions with minimum loss or discontinuity of current even in dynamic applications. Both solder and crimp terminations are available.
- Large array of over 100 insert arrangements in 13 shell sizes for power, signal, and combinations of power and signal pin configurations are available for a variety of applications.
- **Temperature:** Operating temperature from -40° C - 200° C.

MIL-DTL-5015, 3400

How to Order

PART NUMBER						
Mil / Commercial	1	2	3	4	5	6
MS34	00	D	S	14-3	P	W
TM34	00	D	S	14-3	P	W

1. MS Number –

MS3400 Wall Mount Receptacle
 MS3401 Cable Connecting Receptacle
 MS3402 Box Mount Receptacle
 MS3406 Straight Plug

For commercial callout, replace MS with TM

2. Class –

D - High Impact

3. Material

S - Stainless Steel
 T- Farris Alloy with Cadmium Plate
 Leave Blank for Aluminum Alloy

4. Shell Size and Insert Arrangement– See page 30

5. Contact Type –

P - Pin
 S - Socket

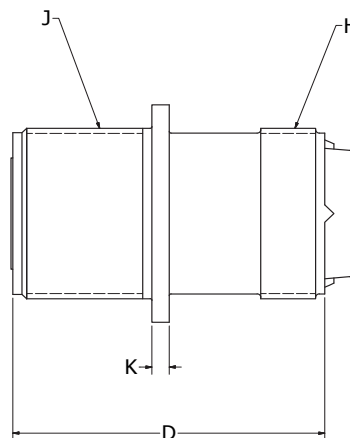
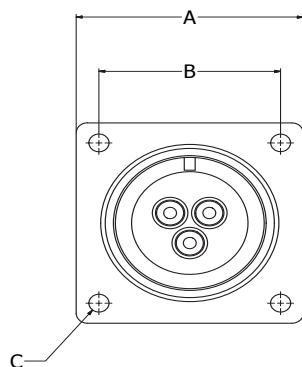
6. Alternate Insert Rotation

W,X,Y, or Z
 None = Normal

*Please contact your representative for alternate platings

MIL-DTL-5015, 3400

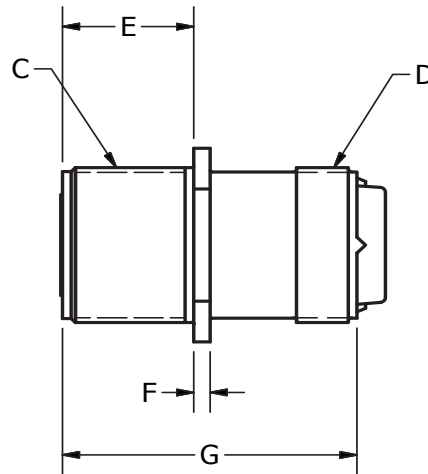
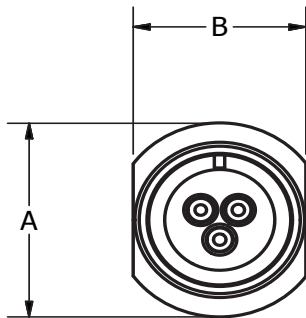
wall mount receptacle



Shell Size	A ±.031.	B	C		D		H Thread	J Thread	K
			A, F, R, W	K	16*12	8, 4, 0			
8S	.875	.594	.120	.150	2.031	-	1/2-28 UNEF	1/2-28 UNEF	.083
10S	1.000	.719	.120	.150	2.031	-	5/8-24 UNEF	5/8-24 UNEF	.083
10SL	1.000	.719	.120	.150	2.031	-	5/8-24 UNEF	5/8-24 UNEF	.083
12	1.094	.812	.120	.150	2.125	-	3/4-20 UNEF	3/4-20 UNEF	.083
12S	1.094	.812	.120	.150	2.031	-	3/4-20 UNEF	3/4-20 UNEF	.083
14	1.188	.906	.120	.150	2.125	-	7/8-20 UNEF	7/8-20 UNEF	.083
14S	1.188	.906	.120	.150	2.031	-	7/8-20 UNEF	7/8-20 UNEF	.083
16	1.281	.969	.120	.150	2.125	2.500	1-20 UNEF	1-20 UNEF	.083
16S	1.281	.969	.120	.150	2.031	-	1-20 UNEF	1-20 UNEF	.083
18	1.375	1.062	.120	.177	2.125	2.500	1 1/8-16 UNEF	1 1/8-18 UNEF	.125
20	1.500	1.156	.120	.177	2.125	2.500	1 3/16-18 UNEF	1 1/4-18 UNEF	.125
22	1.625	1.250	.120	.177	2.125	2.500	1 5/16-18 UNEF	1 3/8-18 UNEF	.125
24	1.750	1.375	.147	.177	2.125	2.500	1 7/16-18 UNEF	1 1/2-18 UNEF	.125
28	2.000	1.562	.147	.177	2.125	2.500	1 3/4-18 UNS	1 3/4-18 UNS	.125
32	2.250	1.750	.173	.209	2.125	2.500	2-18 UNS	2-18 UNS	.125
36	2.500	1.938	.173	.209	2.125	2.500	2 1/4-16 UN	2 1/4-16 UN	.125
40	3.000	2.188	.173	.209	2.125	2.500	2 3/4-16 UN	2 3/4-16 UN	.125
44	3.250	2.375	.173	.209	2.125	2.500	3-16 UN	3-16 UN	.125

MIL-DTL-5015, 3401

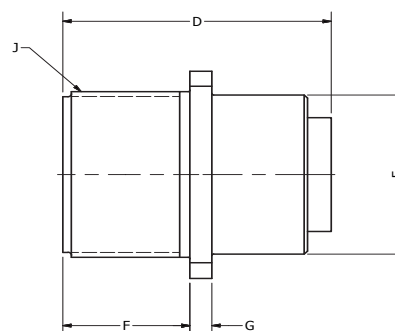
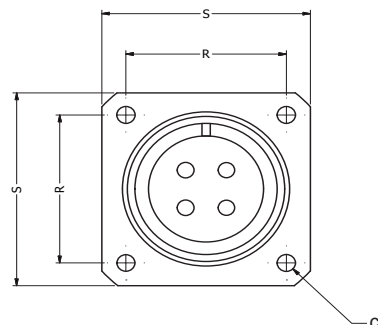
cable connecting receptacle



Shell Size	A ±.031.	B		C Coupling Threads 2A	D Accessory Thread 2A	E +.031 -.000	F ±.015	G Max Contact Size	
		Max	Min					16 & 12	8,4,0
8S	.729	.504	0.496	1/2-20 UNEF	1/2-20 UNEF	.562	.830	2.031	-
10S	.854	.629	0.621	5/8-24 UNEF	5/8-24 UNEF	.562	.830	2.031	-
10SL	.854	.629	0.621	5/8-24 UNEF	5/8-24 UNEF	.562	.830	2.031	-
12S	.974	.754	0.746	3/4-20 UNEF	3/4-20 UNEF	.562	.830	2.031	-
12	.974	.754	0.746	3/4-20 UNEF	3/4-20 UNEF	.750	.830	2.125	-
14S	1.099	.879	.871	7/8-20 UNEF	7/8-20 UNEF	.562	.830	2.031	-
14	1.099	.879	.871	7/8-20 UNEF	7/8-20 UNEF	.750	.830	2.125	-
16S	1.224	1.005	0.996	1-20 UNEF	1-20 UNEF	.562	.830	2.031	-
16	1.224	1.005	0.996	1-20 UNEF	1-20 UNEF	.750	.830	2.125	2.500
18	1.349	1.131	1.121	1 1/8-18 UNEF	1 1/16-18 UNEF	.750	.125	2.125	2.500
20	1.474	1.256	1.246	1 1/4-18 UNEF	1 3/16-18 UNEF	.750	.125	2.125	2.500
22	1.599	1.381	1.371	1 3/8-18 UNEF	1 5/16-18 UNEF	.750	.125	2.125	2.500
24	1.715	1.506	1.496	1 1/2-18 UNEF	1 7/16-18 UNEF	.750	.125	2.125	2.500
28	1.974	1.756	1.746	1 3/4-18 UNEF	1 3/4-18 UNEF	.750	.125	2.125	2.500
32	2.224	2.007	1.996	2-18 UN	2-18 UN	.875	.125	2.125	2.500
36	2.474	2.257	2.246	2 1/4-16 UN	2 1/4-16 UN	.875	.125	2.125	2.500
40	2.724	2.511	2.496	2 1/2-16 UN	2 1/2-16 UN	.875	.125	2.125	2.500
44	2.974	2.746	2.761	2 3/4-16 UN	2 3/4-16 UN	.875	.125	2.125	2.500

MIL-DTL-5015, 3402

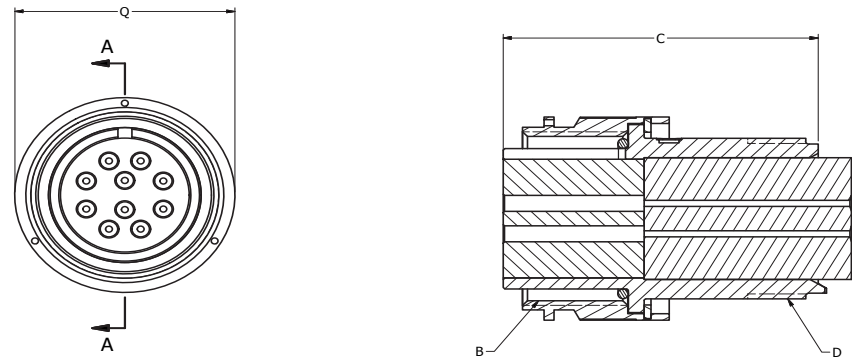
box mount receptacle



Shell Size	C	D Size 16&12 Contacts	D Size 8,4,0 Contacts	E ± .016	F	G ± .015	J Thread	S ± .31	R T.P.
8S	.130/.115	1.662	-	.500	.578/.562	.083	1/2-28 UNEF	.875	.594
10S	.130/.115	1.662	-	.625	.578/.562	.083	5/8-24 UNEF	1.000	.719
10SL	.130/.115	1.662	-	.625	.578/.562	.083	5/8-24 UNEF	1.000	.719
12	.130/.115	1.662	-	.750	.765/.562	.083	3/4-20 UNEF	1.094	.812
12S	.130/.115	1.662	-	.750	.577/.562	.083	3/4-20 UNEF	1.094	.812
14	.130/.115	1.662	-	.875	.765/.750	.083	7/8-20 UNEF	1.188	.906
14S	.130/.115	1.662	-	.875	.577/.562	.083	7/8-20 UNEF	1.188	.906
16	.130/.115	1.662	1.937	1.000	.765/.750	.083	1-20 UNEF	1.281	.969
16S	.130/.115	1.662	-	1.000	.577/.562	.083	1-20 UNEF	1.281	.969
18	.130/.115	1.662	1.937	1.062	.765/.750	.125	1-1/8-18 UNEF	1.375	1.062
20	.130/.115	1.662	1.937	1.187	.765/.750	.125	1-1/4-18 UNEF	1.500	1.156
22	.130/.115	1.662	1.937	1.312	.765/.750	.125	1-3/8-18 UNEF	1.625	1.250
24	.130/.115	1.662	1.937	1.437	.827/.812	.125	1-1/2-18 UNEF	1.750	1.375
28	.130/.115	1.662	1.937	1.750	.827/.812	.125	1-3/4-18 UNS	2.000	1.562
32	.130/.115	1.662	1.937	2.000	.988/.875	.125	2-18 UNS	2.250	1.750
36	.130/.115	1.662	1.937	2.250	.988/.875	.125	2-1/4-16 UN	2.750	1.938
40	.130/.115	1.662	1.937	2.750	.988/.875	.125	2-3/4-16 UN	3.000	2.188
44	.130/.115	1.662	1.937	3.000	.988/.875	.125	3-16 UN	3.250	2.375

MIL-DTL-5015, 3406

straight plug



Shell Size	B Max Contact Size		C Coupling Threads	D Accessory Thread	Q Max.
	16&12	8, 4, 0			
8S	2.031	-	1/2-28 UNEF	1/2-20 UNEF	.844
10S	2.031	-	5/8-24 UNEF	5/8-24 UNEF	.969
10SL	2.031	-	5/8-24 UNEF	5/8-24 UNEF	.969
12S	2.031	-	3/4-20 UNEF	3/4-20 UNEF	1.062
12	2.125	-	3/4-20 UNEF	3/4-20 UNEF	1.062
14S	2.031	-	7/8-20 UNEF	7/8-20 UNEF	1.156
14	2.125	-	7/8-20 UNEF	7/8-20 UNEF	1.156
16S	2.031	-	1-20 UNEF	1-20 UNEF	1.250
16	2.125	2.500	1-20 UNEF	1-20 UNEF	1.250
18	2.125	2.500	1 1/8-18 UNEF	1 1/16-18 UNEF	1.344
20	2.125	2.500	1 1/4-18 UNEF	1 3/16-18 UNEF	1.469
22	2.125	2.500	1 3/8-18 UNEF	1 5/16-18 UNEF	1.594
24	2.125	2.500	1 1/2-18 UNS	1 3/4-18 UNEF	1.719
28	2.125	2.500	1 3/4-18 UNS	1 3/4-18 UNEF	1.969
32	2.125	2.500	2-18 UNS	2-18 UNS	2.219
36	2.125	2.500	2 1/4-16 UN	2 1/4-16 UN	2.469
40	2.125	2.500	2 1/2-16 UN	2 1/2-16 UN	2.719

LexTM3 Heavy Duty Cylindrical Connectors

MIL-DTL-5015, 3100



LexTM3 offers a wide variety of 5015 power connectors. These connectors are ideal for use in highly ruggedized applications, where power/signal has to be transmitted in an environment of extremely low or high temperatures, with high vibration and shock also present. Apart from providing mechanical protection to the contacts, the connectors offer the advantage of being light weight and easy to handle, which facilitates ease of mating/unmating.

- **HOUSING:** Aluminium alloy to provide high mechanical strength while ensuring light weight.
- **SURFACE FINISH:** Standard finish is olive drab chromate over cadmium, for corrosion resistance and use in extreme operating condition. ROHS finishes available. Bright Nickel Plated, Electroless Nickel, Zinc Alloy
- **INSULATOR:** Standard insulator material is Polychloroprene, which provides high degree of insulation resistance, dielectric strength, ability to withstand shock, impact and vibration. Options include Silicon, Viton, and a flame-retardant halogen-free compound which has properties of low smoke and non-toxicity.
- **CONTACTS:** Copper base alloy - silver (or gold) plated, available in a range of current ratings from 10 amps to 150 amps. These offer excellent conductivity under severe service conditions with minimum loss or discontinuity of current even in dynamic applications. Both solder and crimp terminations are available.
- Large array of over 100 insert arrangements in 13 shell sizes for power, signal, and combinations of power and signal pin configurations are available for a variety of applications.
- **Temperature:** Operating temperature from -40°C - 125°C.

MIL-DTL-5015, 3100

how to order

PART NUMBER						
Mil Spec	1	2	3	4	5	6
MS31	00	E	14-3	P	Y	NI

1. MS Number –

MS3100	Wall Mount Receptacle
MS3101	Cable Connecting Receptacle
MS3102	Box Mount Receptacle
MS3106	Straight Plug
MS3108	Cable Connector Right Angle

For commercial callout, replace MS with TM

2. Class –

- E - Environmental Resistance with Cable Clamp
- F - Environmental Resistance with Cable Clamp and O Ring
- R - Environmental resistant for Receptacle

3. Shell Size and Insert Arrangement– See page 30

4. Contact Type –

- P - Pin
- S - Socket

5. Alternate Insert Position

- W,X,Y, or Z
- None = Normal

6. Finish options

- NI - Bright Nickel Plated
- ENI - Electroless Nickel
- ZCG - Cadmium Free Zinc Alloy (Green)

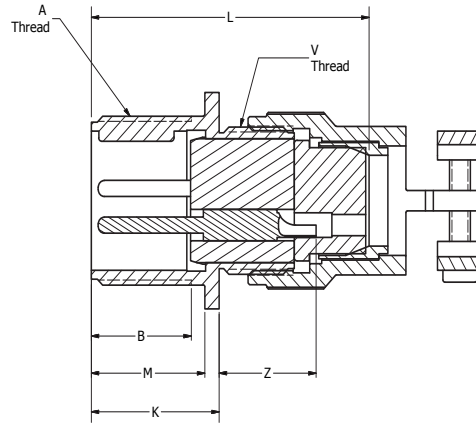
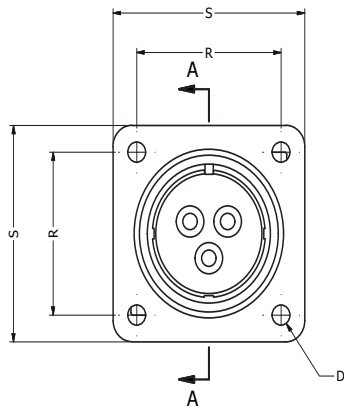
Omit for Std. Cadmium Olive Drab

7. Accessories

- C & C - Cap and Chain Assembly
- DC - Dust Cap

MIL-DTL-5015, 3100

wall mount receptacle



Shell Size	A Thread	B Min Full Thread	D Dia. +.004 -0.002	K +.020 -.010	L ±.030	M +.010 -.000	R ±.005	S ±.031	V Thread	Z +.050 -.060
8S	.5000-28UNEF	.391	.120	.672	.297	.562	.594	.875	.5000-28UNEF	.422
10S	.6250-24NEF	.391	.120	.672	.297	.562	.719	1.000	.5000-28UNEF	.422
10SL	.6250-24NEF	.391	.120	.672	.297	.562	.719	1.000	.6250-24NEF	.422
12S	.7500-20UNEF	.450	.120	.672	.297	.562	.812	1.094	.6250-24NEF	.422
12	.7500-20UNEF	.625	.120	.860	.484	.750	.812	1.094	.6250-24NEF	.672
14S	.8750-20UNEF	.450	.120	.672	.297	.562	.906	1.188	.7500-20UNEF	.422
14	.8750-20UNEF	.625	.120	.860	.484	.750	.906	1.188	.7500-20UNEF	.672
16S	1.000-20UNEF	.450	.120	.672	.297	.562	.969	1.281	.8750-20UNEF	.422
16	1.000-20UNEF	.625	.120	.860	.484	.750	.969	1.281	.8750-20UNEF	.672
18	1.1250-18NEF	.625	.120	.891	.453	.750	1.062	1.375	1.000-20UNEF	.641*
20	1.2500-18NEF	.625	.120	.891	.453	.750	1.156	1.500	1.1875-18NEF	.641*
22	1.3750-18NEF	.625	.120	.891	.453	.750	1.250	1.625	1.1875-18NEF	.641*
24	1.5000-18NEF	.625	.147	.953	.453	.812	1.375	1.750	1.4375-18NEF	.578*
28	1.7500-18NS	.625	.147	.953	.453	.812	1.562	2.000	1.4375-18NEF	.578*
32	2.000-18NS	.625	.173	1.031	.438	.875	1.750	2.250	1.7500-18NS	.500*
36	2.2500-16UN	.625	.173	1.031	.438	.875	1.938	2.500	2.000-18NS	.500*
40	2.5000-16UN	.625	.173	1.031	.438	.875	2.188	2.750	2.2500-16UN	.500*
44	2.7500-16UN	.625	.173	1.063 †	.543†	.875	2.375	3.000††	2.2500-16UN	.751**

* Increase Z dimension by .312 for size "0" contact only

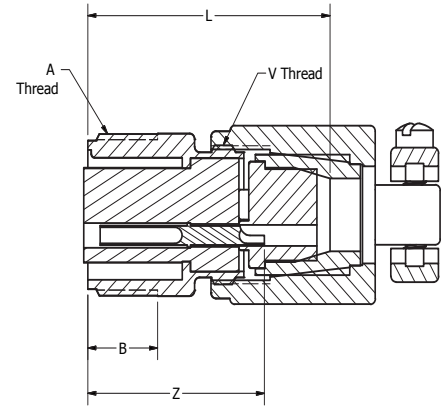
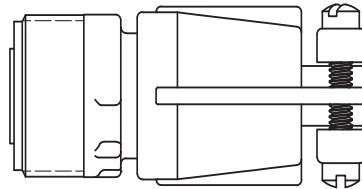
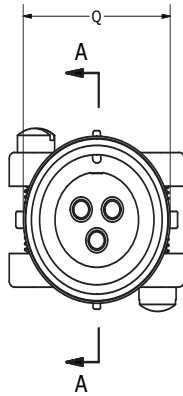
** Increase Z dimension by .062 for size "0" contact only

† +.020-.030

†† ±.020

MIL-DTL-5015, 3101

cable connecting receptacle



Shell Size	A Thread	B Min Full Thread	L $\pm .030$	O Dia. Max	V Rear Thread	Z $\pm .040$
8S	.5000-28UNEF	.406	1.390	.532	.5000-28UNEF	1.094
10S	.6250-24NEF	.406	1.468	.628	.5000-28UNEF	1.094
10SL	.6250-24NEF	.406	1.468	.755	.6250-24NEF	1.094
12S	.7500-20UNEF	.422	1.468	.755	.6250-24NEF	1.094
12	.7500-20UNEF	.656	1.843	.755	.6250-24NEF	1.532
14S	.8750-20UNEF	.391	1.468	.882	.7500-20UNEF	1.094
14	.8750-20UNEF	.625	1.843	.882	.7500-20UNEF	1.532
16S	1.000-20UNEF	.391	1.468	1.010	.8750-20UNEF	1.094
16	1.000-20UNEF	.625	1.843	1.010	.8750-20UNEF	1.532
18	1.1250-18NEF	.625	1.938	1.137	1.0000-20UNEF	1.532*
20	1.2500-18NEF	.625	1.844	1.264	1.1875-18NEF	1.532*
22	1.3750-18NEF	.625	1.938	1.392	1.1875-18NEF	1.532*
24	1.5000-18NEF	.625	1.969	1.519	1.4375-18NEF	1.532*
28	1.7500-18NS	.625	2.188	1.774	1.4375-18NEF	1.532*
32	2.000-18NS	.625	2.157	1.996	1.7500-18NS	1.532*
36	2.2500-16UN	.625	2.219	2.251	2.0000-18NS	1.532*
40	2.5000-16UN	.625	2.188	2.506	2.2500-16UN	1.532*
44	2.7500-16UN	.625	2.521	3.135	2.5000-16UN	1.782**

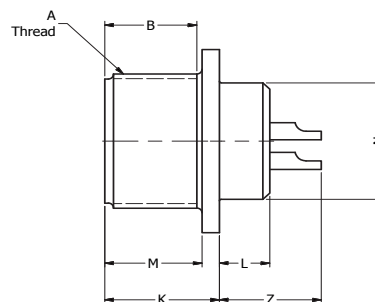
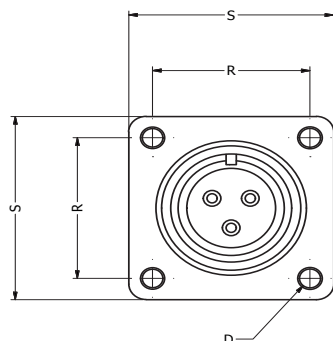
* Increase Z dimension by .312 for size "0" contact only

** Increase Z dimension by .062 for size "0" contact only

† $+.020-.030$

MIL-DTL-5015, 3102

box mount receptacle



Shell Size	A Thread	B Min Full Thread	D Dia. +.050 -.060	K +.020 -.010	L +.000 -.010	M +.010 -.000	N Dia +.010 -.000	R ±.005	S ±.031	Z +.050 -.060
8S	.5000-28UNEF	.391	.120	.672	.297	.562	.375	.594	.875	.422
10S	.6250-24NEF	.391	.120	.672	.297	.562	.500	.719	1.000	.422
10SL	.6250-24NEF	.391	.120	.672	.297	.562	.625	.719	1.000	.422
12S	.7500-20UNEF	.450	.120	.672	.297	.562	.625	.812	1.094	.422
12	.7500-20UNEF	.625	.120	.860	.484	.750	.625	.812	1.094	.672
14S	.8750-20UNEF	.450	.120	.672	.297	.562	.750	.906	1.188	.422
14	.8750-20UNEF	.625	.120	.860	.484	.750	.750	.906	1.188	.672
16S	1.000-20UNEF	.450	.120	.672	.297	.562	.875	.969	1.281	.422
16	1.000-20UNEF	.625	.120	.860	.484	.750	.875	.969	1.281	.672
18	1.1250-18NEF	.625	.120	.891	.453	.750	1.000	1.062	1.375	.641*
20	1.2500-18NEF	.625	.120	.891	.453	.750	1.125	1.156	1.500	.641*
22	1.3750-18NEF	.625	.120	.891	.453	.750	1.250	1.250	1.625	.641*
24	1.5000-18NEF	.625	.147	.953	.453	.812	1.375	1.375	1.750	.578
28	1.7500-18NS	.625	.147	.953	.453	.812	1.625	1.562	2.000	.578*
32	2.000-18NS	.625	.173	1.031	.438	.875	1.875	1.750	2.250	.500*
36	2.2500-16UN	.625	.173	1.031	.438	.875	2.062	1.938	2.500	.500*
40	2.5000-16UN	.625	.173	1.031	.438	.875	2.312	2.188	2.750	.500*
44	2.7500-16UN	.625	.173	1.063	.543†	.875	2.594	2.375	3.000††	.768**

* Increase Z dimension by .312 for size "0" contact only

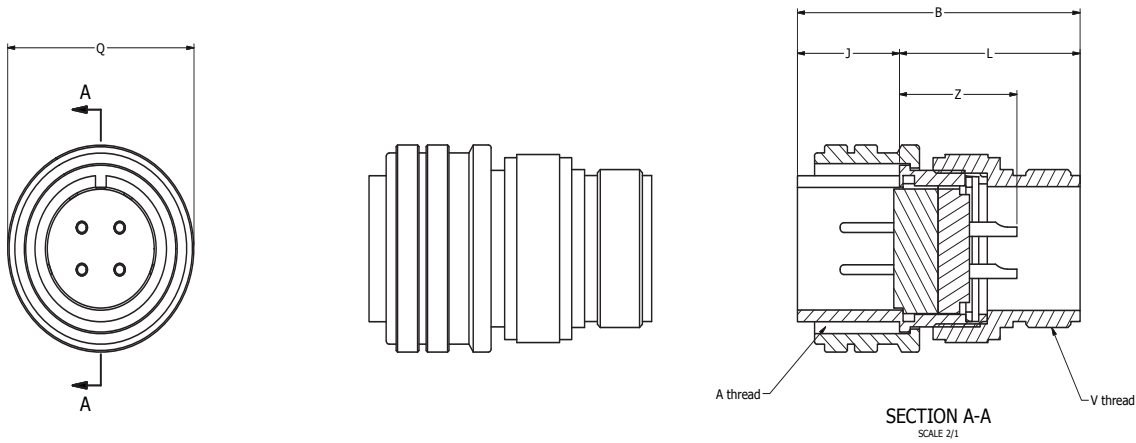
** Increase Z dimension by .062 for size "0" contact only

† +.020-.030

†† ±.020

MIL-DTL-5015, 3106

straight plug



Shell Size	A Thread	B	J ±.005	L ±.030	Q Dia Max	V Thread	Z ±.045
8S	.5000-28UNEF	1.39	.531	.859	.741	.5000-28UNEF	.562
10S	.6250-24NEF	1.468	.531	.937	.869	.5000-28UNEF	.562
10SL	.6250-24NEF	1.468	.531	.937	.946	.6250-24NEF	.562
12S	.7500-20UNEF	1.468	.531	.937	.995	.6250-24NEF	.562
12	.7500-20UNEF	1.843	.719	1.124	.995	.6250-24NEF	.812
14S	.8750-20UNEF	1.468	.531	.937	1.123	.7500-20UNEF	.562
14	.8750-20UNEF	1.843	.719	1.124	1.123	.7500-20UNEF	.812
16S	1.000-20UNEF	1.468	.531	.937	1.250	.8750-20UNEF	.562
16	1.000-20UNEF	1.843	.719	1.124	1.250	.8750-20UNEF	.812
18	1.1250-18NEF	1.938	.719	1.219	1.333	1.0000-20UNEF	.812*
20	1.2500-18NEF	1.844	.719	1.125	1.461	1.1875-18NEF	.812*
22	1.3750-18NEF	1.938	.719	1.219	1.588	1.1875-18NEF	.812*
24	1.5000-18NEF	2.042	.719	1.251	1.715	1.4375-18NEF	.812*
28	1.7500-18NS	2.189	.719	1.470	1.968	1.4375-18NEF	.812*
32	2.000-18NS	2.158	.719	1.439	2.209	1.7500-18NS	.812*
36	2.2500-16UN	2.219	.719	1.500	2.463	2.0000-18NS	.812*
40	2.5000-16UN	2.188	.719	1.469	2.719	2.2500-16UN	.812*
44	2.7500-16UN	2.537	.719	1.818 †	3.084	2.5000-16UN	1.063**

* Increase Z dimension by .312 for size "0" contact only

** Increase Z dimension by .062 for size "0" contact only

† ±.020-.030