



Power Connectors

For all of your ruggedized
high reliability power needs!



Mil-C-22992 Class L Compatibility

MIL-C-22992 CLASS L COMPATIBILITY ORDERING INFORMATION

ORDERING INFORMATION:

Connectors are supplied with removable contacts. Contacts are supplied unassembled.
Also supplied are applicable accessories as shown on pages 8 through 11.
Additional contacts may be ordered separately by part number.
Connectors can be ordered by RTI part number or military part number as shown below.

Typical RT Part Number: **RT90555 C 44 4 12 S Z**

Connector Designation

RT 90555 Wall Mount Receptacle (Power Source)
RT 90556 Straight Plug
RT 90557 Cable Connecting Receptacle without Coupling Ring
RT 90558 Wall Mounting Plug with Coupling Ring (Equipment End)

Shell Finish C: Conductive for Grounded Assemblies

Shell Finish N: Non-Conductive Assemblies

Shell Size (28, 32, 44, 52) Related to current carrying capacity

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

Shell/Keyway Position

1, 4, 5, and 6 positions are available to prevent cross mating of dissimilar voltages

Insert Arrangement

See pages 11 through 13.

Contact Type

P: Pin
S: Socket

Alternate Insert Positioning

Discrimination of 60Hz and 400Hz assemblies is accomplished by alternate positioning of inserts. See page 2.

The RTI Class “L” connector line is a power connector with current ratings ranging from 40 through 200 amperes. This type of connector is required for all ground power equipment by MIL-STD-454, and are considered the preferred connector under MIL-STD-1453, which mandates its use in all equipment procured by the military. The selection of Class “L” connectors was primarily based on maximum user safety and equipment protection.

DESIGN FEATURES:

Safety

- RTI Class “L” connectors are equipped with arc quenching chambers to minimize damage to cable or connector and reduce the hazard of live circuit rupture to personnel during the most severe field conditions.
- Designed with a coupling sequence that engages both the neutral and ground contacts before the power contacts.
- Socket contacts are recessed well within the dielectric face, which represents a “dead face” to the outside world.

Equipment Protection

- Connectors are shell polarized (key/keyway) for alternate voltage and phase requirements.
- Discrimination of 60 Hz & 400 Hz accomplished by alternate insert positions.
- Current rating controlled by shell size.
- Connectors are fully grounded for all AC applications.

ADDITIONAL DESIGN FEATURES:

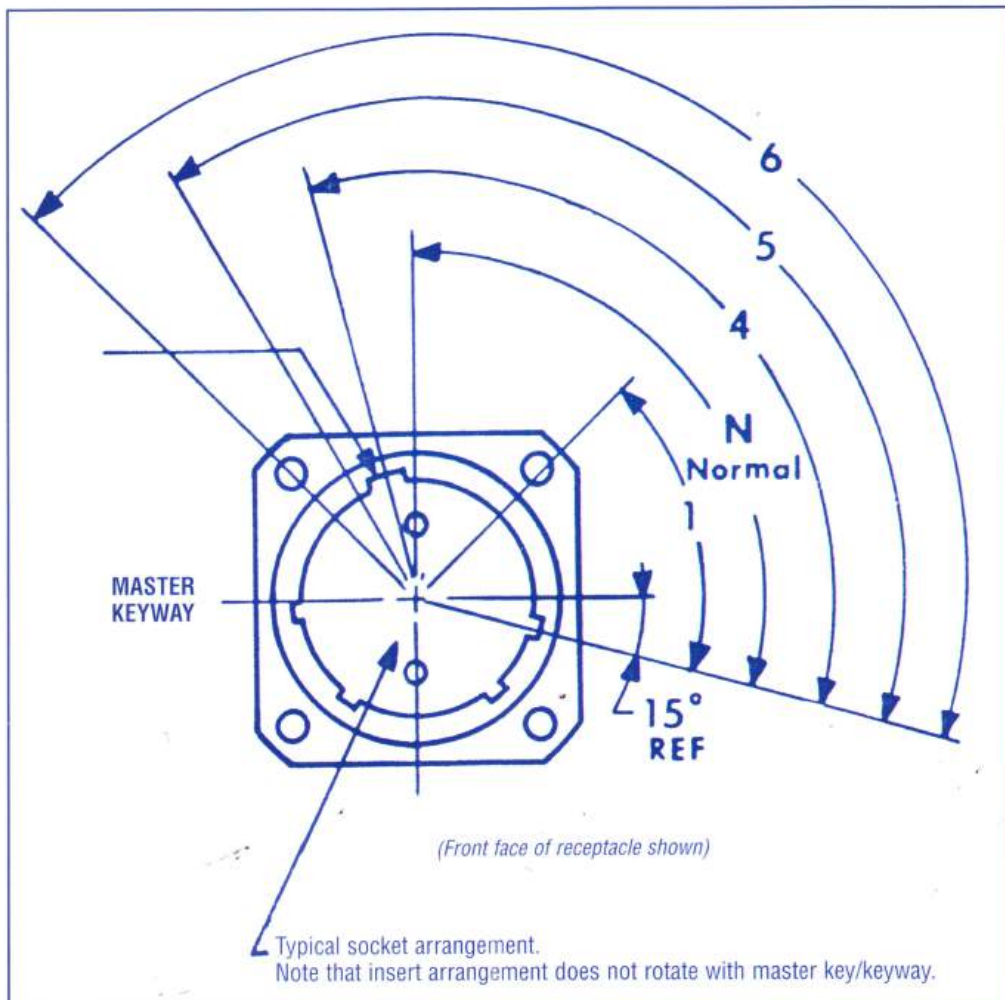
- Shells are machined from high strength aluminum and are supplied with conductive or non-conductive finishes.
- Equipped with necessary seals for waterproofing whether mated, unmated, capped or uncapped.
- Crimped or soldered contacts, hand insertable and removable.
- Quick connect/disconnect for mating and unmating during severe field conditions.



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MANUFACTURED
IN THE USA



MIL-C-22992 CLASS L COMPATIBILITY ORDERING INFORMATION



MASTER KEY/KEYWAY POSITIONS:

N designates normal position. Four other positions (1, 4, 5, and 6) of the master key/keyway prevent mating of incompatible voltages. Refer to the illustration above for applicability.

NON-GROUNDING ASSEMBLIES: Finish N

Shell Size	Current Rating Amps	Shell Master Key Keyway Position
		DC 2 Wire 28 VDC
28	40	N(105°)
32	60	N(105°)
44	100	N(105°)
48	150	N(105°)
52	200	N(105°)

GROUNDING ASSEMBLIES: Finish C

Shell Master Key / Keyway Position		60 Hz & 400 Hz						
Shell Size	Current Rating Amps	1 Phase		3 Phase				
		2 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°)	1(60°)	4(120°)	5(135°)	6(150°)
32	60	4(120°)	5(135°)	4(120°)	1(60°)	4(120°)	5(135°)	6(150°)
44	100	4(120°)	—	4(120°)	1(60°)	4(120°)	5(135°)	6(150°)
48	150	—	—	4(120°)	1(60°)	4(120°)	5(135°)	6(150°)
52	200	—	—	4(120°)	1(60°)	4(120°)	5(135°)	6(150°)

**MIL-C-22992 CLASS L COMPATIBLE,
FLANGE MOUNT, RECEPTACLE**

RT90555 – MS90555*

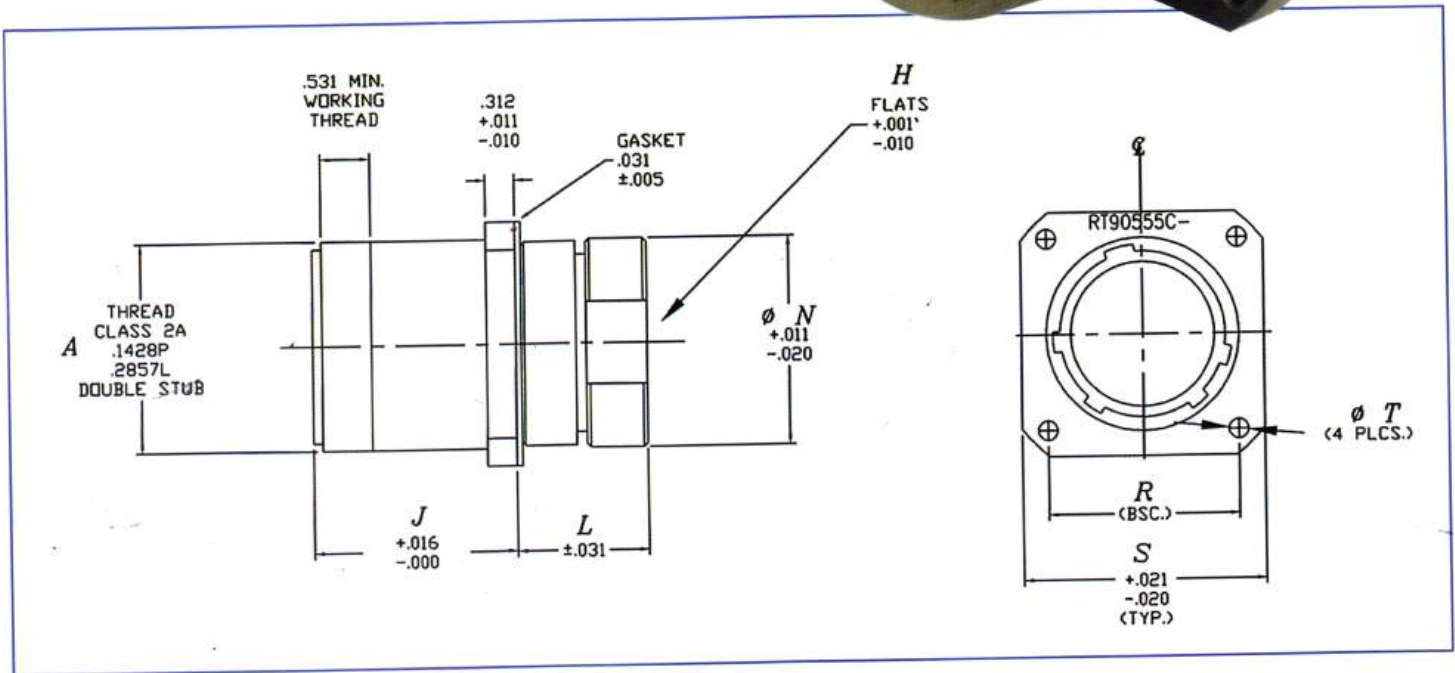


Table of Dimensions

SIZE	PART NO.	A THREAD	H	J	L	N	R	S	T
28	RT90555*28	2.000	1.812	2.188	1.376	2.000	1.844	2.375	.177
32	RT90555*32	2.250	2.062	2.188	1.376	2.250	2.062	2.062	.209
44	RT90555*44	3.000	3.062	2.532	1.438	3.125	3.375	2.821	.281
52	RT90555*52	3.500	3.312	2.532	1.438	3.625	3.156	3.156	.281

MIL-C-22992 CLASS L COMPATIBLE, CABLE, PLUG

RT90556 – MS90556*

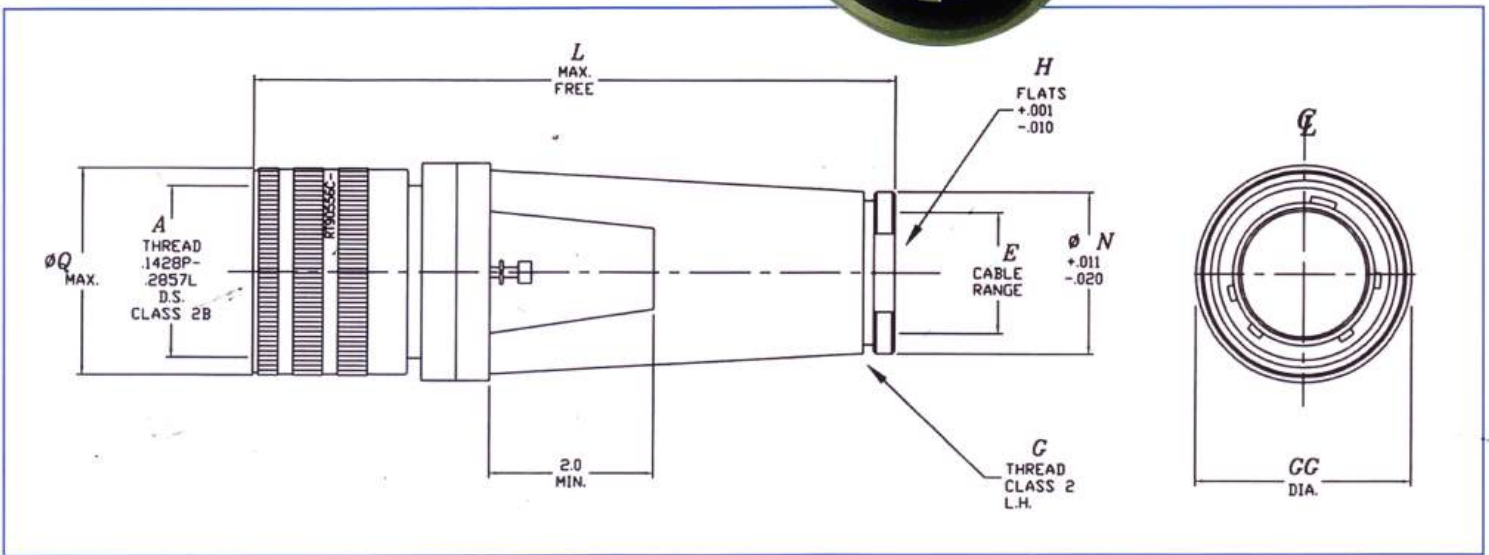


Table of Dimensions

SIZE	PART NO.	A THREAD	E	G	H	L	N	Q	GG
28	RT90556*28	2.000	TABLE 2	1.8750-16UN	1.750	2.000	8.188	2.312	2.439/2.428
32	RT90556*32	2.250	TABLE 2	1.8750-16UN	1.750	2.250	8.188	3.562	2.689/2.678
44	RT90556*44	3.000	TABLE 2	2.3125-16UNS	2.250	3.125	2.500	3.531	3.667/3.646
52	RT90556*52	3.500	TABLE 2	3.0000-16UN	2.875	3.625	3.250	4.016	4.167/4.146

Table 2

SHELL SIZE AND ARRANGEMENT	E CABLE RANGE
28-02, 04	.844-.719
28-03, 05, 06	.969-.844
28-07, -12	1.047-.922
28-13	1.130-1.005
32-02, 04	.969-.844
32-03, 05, -12	1.130-1.005
32-06	1.047-.922
32-07	1.259-1.135
32-13	1.342-1.217
44-02, -04	1.312-1.187
44-03, -05	1.438-1.313
44-06	1.375-1.250
44-12	1.516-1.391
44-13	1.672-1.547
44-51	1.734-1.609
52-02	1.703-1.558
52-06	1.797-1.652
52-12	2.328-2.183
52-13	2.453-2.308

MIL-C-22992 CLASS L COMPATIBLE, CABLE, RECEPTACLE

RT90557 – MS90557*

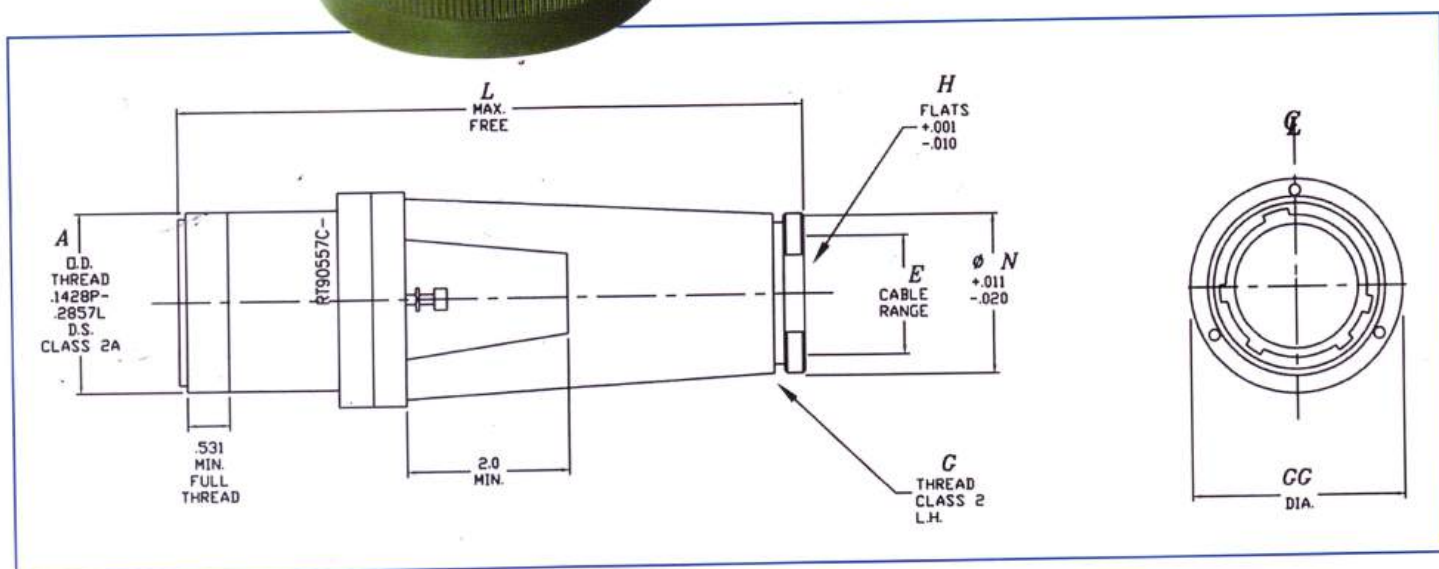


Table of Dimensions

SIZE	PART NO.	A THREAD	E	G	H	L	N	GG
28	RT90557*28	2.000	TABLE 2	1.8750-16UN	1.750	8.156	2.000	2.439/2.428
32	RT90557*32	2.250	TABLE 2	1.8750-16UN	1.750	8.156	2.000	2.689/2.678
44	RT90557*44	3.000	TABLE 2	2.3125-16UNS	2.250	10.125	2.500	3.667/3.646
52	RT90557*52	3.500	TABLE 2	3.0000-16UN	2.875	11.062	3.250	4.167/4.146

Table 2

SHELL SIZE AND ARRANGEMENT	E CABLE RANGE
28-02, 04	.844-.719
28-03, 05, 06	.969-.844
28-07, -12	1.047-.922
28-13	1.130-1.005
32-02, 04	.969-.844
32-03, 05, -12	1.130-1.005
32-06	1.047-.922
32-07	1.259-1.135
32-13	1.342-1.217
44-02, -04	1.312-1.187
44-03, -05	1.438-1.313
44-06	1.375-1.250
44-12	1.516-1.391
44-13	1.672-1.547
44-51	1.734-1.609
52-02	1.703-1.558
52-06	1.797-1.652
52-12	2.328-2.183
52-13	2.453-2.308

**MIL-C-22992 CLASS L COMPATIBLE,
FLANGE MOUNT, PLUG**

RT90558 – MS90558*

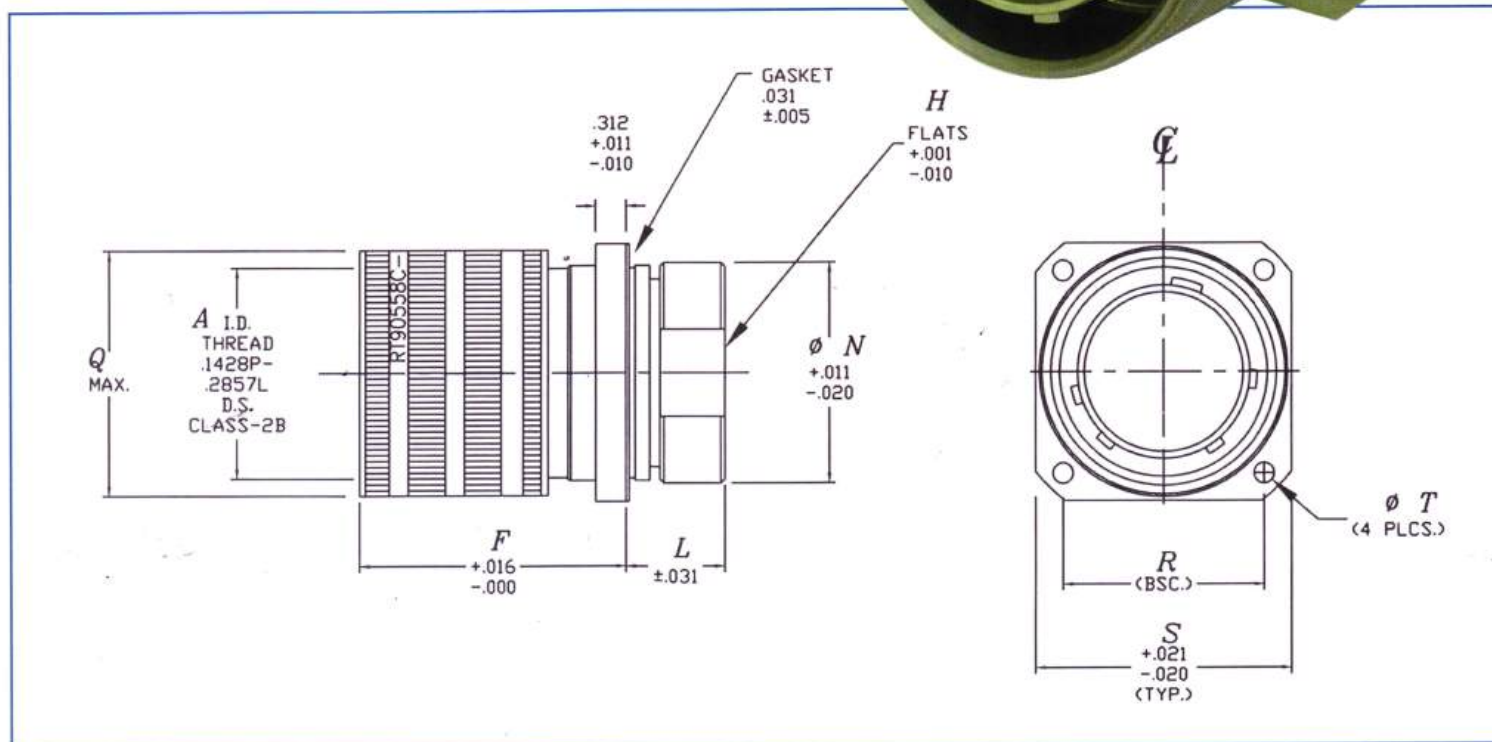
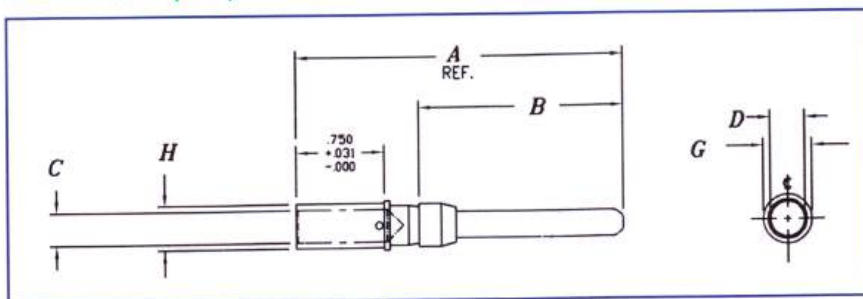


Table of Dimensions

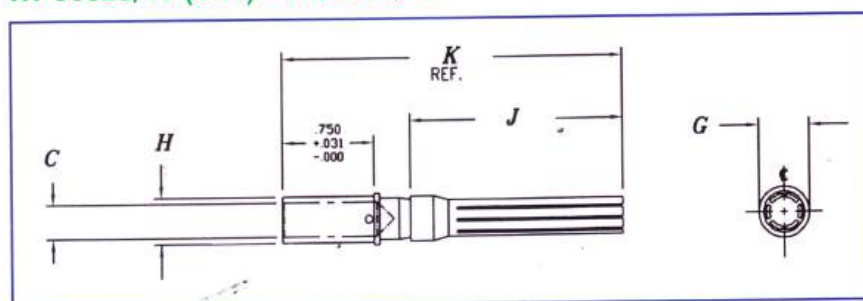
SIZE	PART NO.	A THREAD	F	H	L	N	Q	R	S	T
28	RT90558*28	2.000	2.639	1.812	.959	2.000	2.312	1.844	2.375	.177
32	RT90558*32	2.250	2.639	2.062	.959	2.250	2.562	2.062	3.625	.209
44	RT90558*44	3.000	2.998	2.812	1.021	3.125	3.531	2.812	3.375	.281
52	RT90558*52	3.500	2.998	3.312	1.021	3.625	4.061	3.156	3.875	.281

ACCESSORIES

RT39029/48 (PIN) – M39029/48*



RT 39029/49 (SKT) – M39029/49*



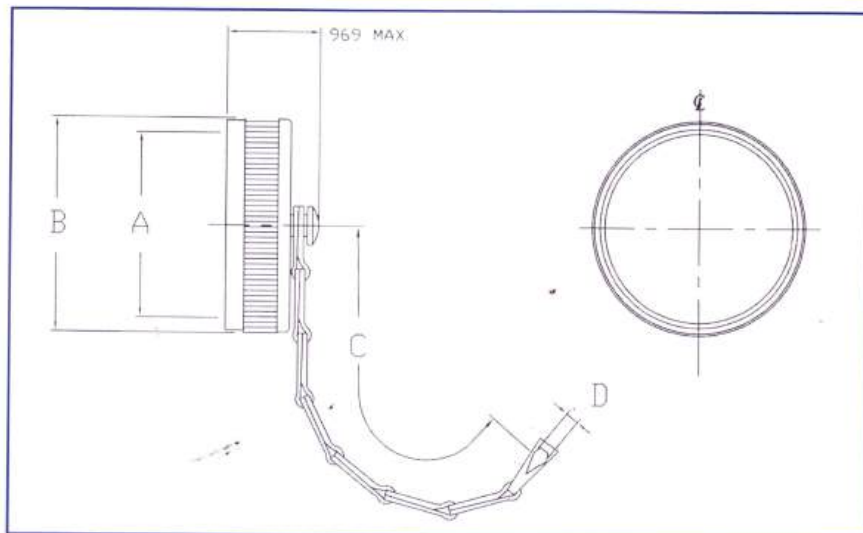
Pin & Socket Power Contacts RT39029/48 (PIN) & RT39029/49 (SKT)

SOCKET RTI Part No.	PIN RT Part No.	Contact Size	WIRE WELL SIZE	A REF.	B ±.005	C Dia. + .004 - .003	D ±.005	G Dia. + .004 - .003	H Dia. + .004 - .003	J Dia. + .004 - .003	K REF.
RT39029/49-335	RT39029/48-327	4/0	4/0	3.207	2.097	.641 +.004 -.003	.500	.781 ±.003	.750 +.004 -.003	1.283	2.393
N/A	RT39029/48-328	4/ON	4/0	3.325	2.215	.641 +.004 -.003	.500	.781 ±.003	.750 +.004 -.003		
RT39029/49-334	RT39029/48-325	2/0	2/0	3.207	2.097	.500 +.004 -.003	.406	.688 ±.003	.609 +.004 -.003	1.283	2.393
N/A	RT39029/48-326	2/ON	2/0	3.325	2.215	.500 +.004 -.003	.406	.688 ±.003	.609 +.004 -.003		
RT39029/49-333	RT39029/48-323	1/0	1	3.207	2.097	.406 +.004 -.003	.357	.609 ±.003	.506 +.004 -.003	1.283	2.393
N/A	RT39029/48-324	1/ON	1	3.325	2.215	.406 +.004 -.003	.357	.609 ±.003	.506 +.004 -.003		
RT39029/49-331	RT39029/48-320	4	4	2.786	1.738	.281 ±.002	.225	.417 ±.002	.374 ±.002	1.158	2.206
	RT39029/48-321	4N	4	2.904	1.856	.281 ±.002	.225	.417 ±.002	.374 ±.002		
RT39029/49-329	RT39029/48-317	6	6	2.786	1.738	.234 ±.002	.178	.342 ±.002	.312 ±.002	1.158	2.206
	RT39029/48-318	6N	6	2.904	1.856	.234 ±.002	.178	.342 ±.002	.312 ±.002		
RT39029/49-332	RT39029/48-322	4G	4	2.856	1.746	.281 ±.002	.225	.417 ±.002	.374 ±.002	1.752	2.862
RT39029/49-330	RT39029/48-319	6G	6	2.856	1.746	.234 ±.002	.178	.342 ±.002	.312 ±.002	1.752	2.862

ACCESSORIES

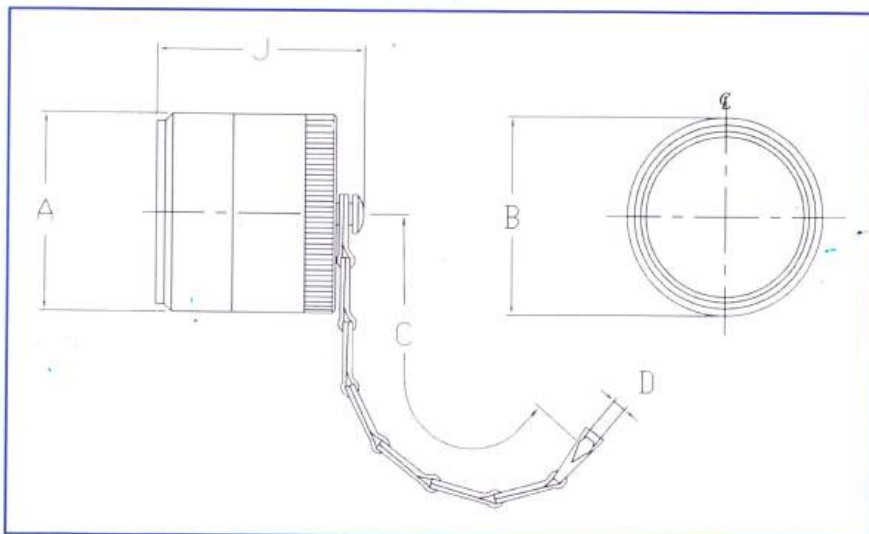
Receptacle, Cap Class L, Mil-C-22992 Compatible RT90563 – MS90563*

SIZE	PART #	A THREAD CLASS 2-B .1428P-.2857L DOUBLE STUB	B Dia. MAX.	C ± 1 LINK	D EYELET
28	RT90563-1C	2.000	2.219	6.000	.164
32	RT90563-3C	2.250	2.469	4.500	.190
32	RT90563-4C	2.250	3.469	6.000	.164
44	RT90563-7C	3.000	3.219	7.500	.250
48	RT90563-9C	3.250	3.469	7.500	.250
52	RT90563-11C	3.500	3.750	7.500	.250

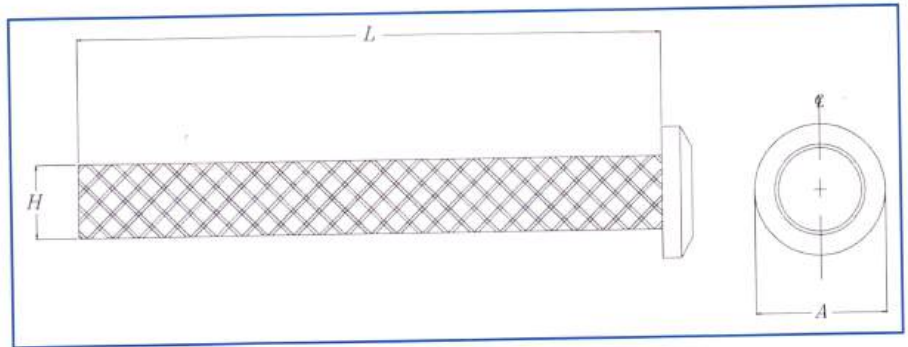


Plug, Cap Class L, Mil-C-22992 Compatible RT90564 – MS90564*

SIZE	PART #	A THREAD CLASS 2-B .1428P-.2857L DOUBLE STUB	B Dia. MAX.	C ± 1 LINK	D EYELET	J MAX.
28	RT90564-1C	2.000	2.000	7.500	.164	2.266
32	RT90564-3C	2.250	2.225	6.000	.190	2.266
32	RT90564-4C	2.250	2.225	7.500	.164	2.266
44	RT90564-7C	3.000	3.000	8.500	.250	2.482
48	RT90564-9C	3.250	3.250	8.500	.250	2.482
52	RT90564-11C	3.500	3.500	8.500	.250	2.482



ACCESSORIES



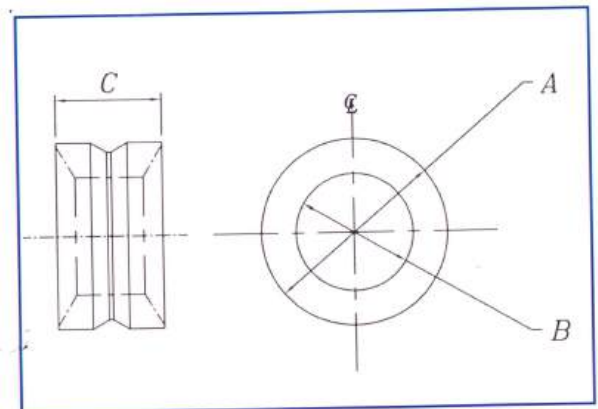
Tab Cable Grips RT90561-TAB – MS90561*

RTI PART No.	INSERT ARRANGEMENT	A DIA. +.000 -.010	H DIA. CABLE RANGE MAX. MIN.	L APPROX.
RT90561-1	28-03,-05,-06, 32-02,-04	1.797	.969 .832	8.000
RT90561-2	28-13 32-03,-05,-12	1.797	1.145 1.003	8.000
RT90561-3	32-07	1.797	1.260 1.055	9.000
RT90561-4	28-02,-04	1.797	.844 .688	7.500
RT90561-5	44-02,-04	2.235	1.312 1.156	11.500
RT90561-6	44-06	2.235	1.375 1.219	10.500
RT90561-7	48-13	2.672	2.062 1.867	15.000
RT90561-8	52-03	2.922	1.703 1.414	14.500
RT90561-9	52-06	2.922	1.797 1.508	14.500
RT90561-12	28-07,-12 32-06	1.797	1.047 .891	8.000
RT90561-13	32-13	1.797	1.342 1.185	9.500
RT90561-14	44-03,-05	2.235	1.438 1.282	10.500
RT90561-15	44-12	2.235	1.516 1.360	11.500
RT90561-16	44-18*	2.235	1.688 1.531	13.500
RT90561-17	52-12	2.922	2.328 2.039	18.000
RT90561-18	52-13	2.235	2.500 2.211	19.000
RT90561-19	44-51	2.235	1.750 1.550	12.500
RT90561-20	44-52	2.235	1.578 1.375	12.000
RT90561-21	44-56	2.235	1.160 1.010	8.000



Cable Sealing Gland RT23747-Tab – MS23747*

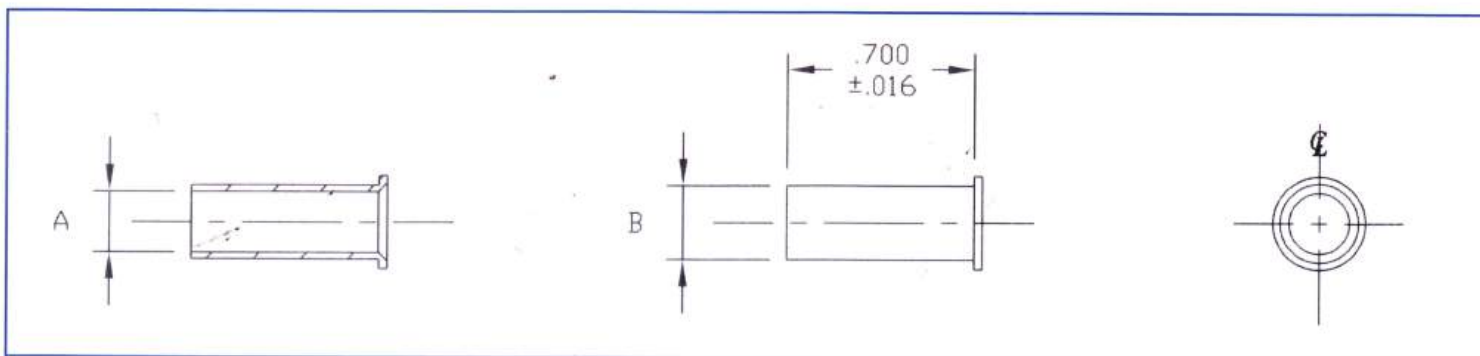
RTI PART No.	INSERT ARRANGEMENT	A DIA. +.000 -.020	B DIA. +.020 -.000	C +.010	MIN CABLE DIA. REF.
RT23747-1	28-03,-05,-06, 32-02,-04	1.805	.969	1.034	.844
RT23747-2	28-03,-05,-06 32-02,-04	1.805	1.130	1.034	1.005
RT23747-3	32-07	1.805	1.260	1.034	1.135
RT23747-4	28-02,-04	1.805	.844	1.034	.719
RT23747-5	44-02,-04	2.242	1.312	1.160	1.187
RT23747-6	44-06	2.242	1.375	1.160	1.250
RT23747-7	52-02	2.927	1.703	1.284	1.558
RT23747-8	52-06	2.927	1.797	1.284	1.652
RT23747-12	28-07,-12 32-06	1.805	1.047	1.034	.922
RT23747-13	32-13	1.805	1.342	1.034	1.217
RT23747-14	44-03,-05	2.242	1.438	1.160	1.313
RT23747-15	44-12	2.242	1.516	1.160	1.391
RT23747-16	44-13	2.242	1.627	1.160	1.547
RT23747-17	48-13	2.680	2.000	1.222	1.855
RT23747-18	52-12	2.927	2.328	1.284	2.183
RT23747-19	52-13	2.927	2.453	1.284	2.308
RT23747-20	44-51	2.242	1.734	1.160	1.609
RT23747-21	44-52	2.242	1.562	1.160	1.437
RT23747-22	44-56	2.242	1.150	1.160	1.025



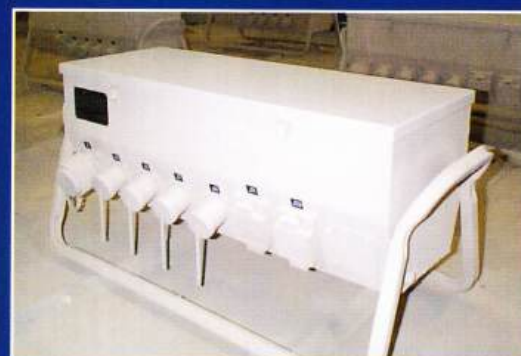
ACCESSORIES

Contact Bushing RT3348 – MS3348*

RT Part No.	A Dia. +.010 -.003	B Dia. +.002 -.003	WIRE SIZE (REF.)	CONTACT WIRE BARREL SIZE
RT3348- 1-2L	.359	.396	2	1
RT3348- 4-5L	.250	.272	5	4
RT3348- 4-6L	.225	.272	6	4
RT3348- 4-8L	.185	.225	8	6
RT3348- 6-9L	.155	.225	9	6
RT3348- 1-6L	.225	.396	6	1
RT3348- 4-8L	.185	.272	8	4
RT3348- 6-10L	.136	.225	10	6
RT3348- 4/0-2/0	.500	.629	2/0	4/0



RTI PRODUCTS IN USE FOR THE US ARMED SERVICES

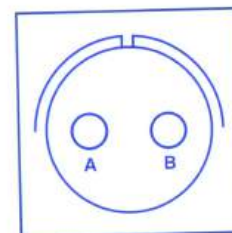


CLASS L, INSERT ARRANGEMENTS. ALTERNATE ROTATIONS

MIL-C-22992 COMPATIBLE

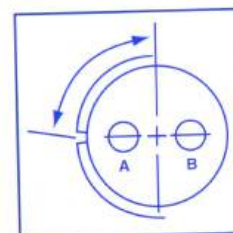
ALL VIEWS ARE LOOKING
INTO FRONT OF PIN INSERT
OR REAR OF SOCKET INSERT

Insert Arrangements	KEYING POSITION (Degrees from normal position)			
	DC or 60 Hz Normal		400 Hz.	
		W	X	Y
28-02, 28-03	0	—	—	—
28-04, 28-05	0	—	—	180
28-06, 28-07	0	45	—	—
28-12, 28-13	0	—	—	180



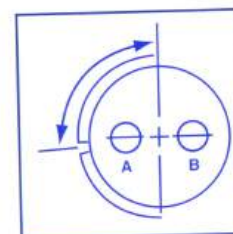
NORMAL ROTATION

Insert Arrangements	KEYING POSITION (Degrees from normal position)			
	DC or 60 Hz Normal		400 Hz.	
		W	X	Y
32-02, 32-03	0	—	—	—
32-04, 32-05	0	—	90	—
32-06, 32-07	0	—	90	—
32-12, 32-13	0	—	—	180



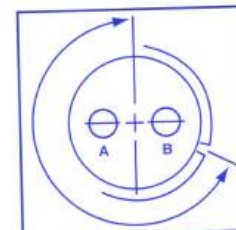
W ROTATION

Insert Arrangements	KEYING POSITION (Degrees from normal position)			
	DC or 60 Hz Normal		400 Hz.	
		W	X	Y
44-02, 44-03	0	—	—	—
44-04, 44-05	0	45	—	—
44-06	0	25	—	—
44-12, 44-13	0	60	—	—



X ROTATION

Insert Arrangements	KEYING POSITION (Degrees from normal position)			
	DC or 60 Hz Normal		400 Hz.	
		W	X	Y
52-02	0	—	—	—
52-06	0	25	—	—
52-12, 52-13	0	60	—	—



Y ROTATION

MIL-C-22992 CROSS REFERENCE CHART

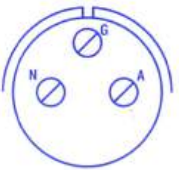
MS Nomenclature	RTI Nomenclature	Style
MS90555	RT90555	Wall Mount Receptacle
MS90556	RT90556	Straight Cable Plug
MS90557	RT90557	Straight Cable Receptacle
MS90558	RT90558	Wall Mount Plug

CLASS L, INSERT ARRANGEMENTS
SHELL SIZE 28, 40 AMP RATING
MIL-C-22992 COMPATIBLE



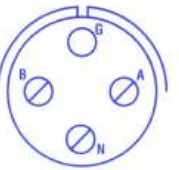
28-02, 28-03 / 28 Volts DC / 2 Wire

Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A	6	-317	-329
N	6N	-318	-329



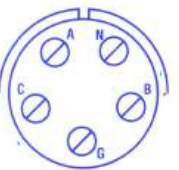
28-04, 28-05 / Single Phase AC / 2 Wire / Grounding

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



28-06, 28-07 / Single Phase AC / 3 Wire / Grounding

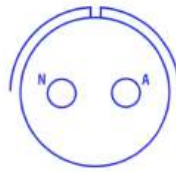
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B	6	-317	-329
N	6N	-318	-329
G	4N	-321	-331



28-12, 28-13 / Three Phase AC / 4 Wire / Grounding

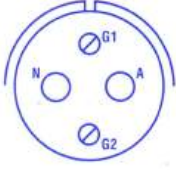
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	6	-317	-329
N, G	6N	-318	-329

CLASS L, INSERT ARRANGEMENTS
SHELL SIZE 32, 60 AMP RATING
MIL-C-22992 COMPATIBLE



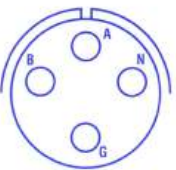
32-02, 32-03 / 28 Volts DC / 2 Wire

Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A	4	-320	-331
N	4N	-321	-331



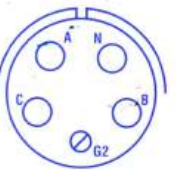
32-04, 32-05 / Single Phase AC / 2 Wire / Grounding

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



32-06, 32-07 / Single Phase AC / 3 Wire / Grounding

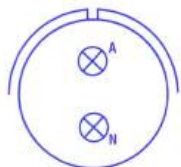
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B	4	-320	-331
N, G	4N	-321	-331



32-12, 32-13 / Three Phase AC / 4 Wire / Grounding

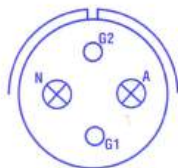
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	4	-320	-331
N	4N	-321	-331
G	6N	-318	-329

CLASS L, INSERT ARRANGEMENTS
SHELL SIZE 44, 100 AMP RATING
MIL-C-22992 COMPATIBLE



44-02, 44-03 / 28 Volts DC / 2 Wire

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



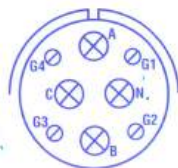
44-04, 44-05 / Single Phase AC / 2 Wire / Grounding

Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A	1/0-1	-323	-333
N	1/0N-1	-324	-333
G1, G2	4G	-322	-332



44-06 / Single Phase AC / 3 Wire / Grounding

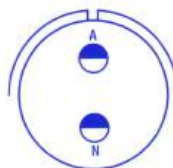
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B	1/0-1	-323	-333
N	1/0N-1	-324	-333
G1, G2, G3	6G	-319	-330



44-12, 44-13 / Three Phase AC / 4 Wire / Grounding

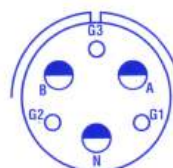
Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	1/0-1	-323	-333
N	1/0N-1	-324	-333
G1, G2, G3, G4	6G	-319	-330

CLASS L, INSERT ARRANGEMENTS
SHELL SIZE 52, 200 AMP RATING



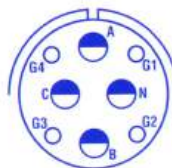
52-02 / 28 Volts DC / 2 Wire

Contacts:			
Position	Size	Pin M39029/48	Socket M39029/49
A	4/0	-327	-335
N	4/0N	-328	-335



52-06 / Single Phase AC / 3 Wire / Grounding

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



52-12, 52-13 / Three Phase AC / 4 Wire / Grounding

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