

Military to Commercial Shell Style Conversion Table

How to Order (Military)

MILITARY	DESCRIPTION	COMMERCIAL
MS27469	Hermetic Wall Mounting Receptacle	LJT00, LJTS00
MS27470	Hermetic Jam Nut Receptacle	LJT07, LJTS07
MS27471	Hermetic Solder Mounting Receptacle	LJTIH, LJTIY, LJTSIY

HOW TO ORDER - Military Series I

1. MS Number	2. Service Class	3. Shell Size	4. Finishes	5. Insert Arrangement	6. Contact Style	7. Alternate Keying Position
MS27469	Y	14	N	18	P	A

1. MS NUMBER SERIES I LJT	
MS27469	Hermetic Wall Mounting Receptacle
MS27470	Hermetic Jam Nut Receptacle
MS27471	Hermetic Solder Mounting Receptacle

2. HERMETIC SERVICE CLASS	
Y	Hermetic with interfacial seal

3. SHELL SIZE
See table on page 5-6

Shell Size & Insert Arrangement are on pages 5-6. First number represents Shell Size, second number is the Insert Arrangement. Place Shell Size in box 3 and Insert Arrangement in box 5.

4. HERMETIC FINISHES	
Finish	Military Finish Data
Carbon steel shell tin plated & contacts	D
Stainless steel shell passivated	E
Stainless steel nickel plated	N

5. INSERT ARRANGEMENT
See table on page 5-6

6. CONTACTS	
P	Pin Contacts-Solder
X	Pin Contacts - Eyelet

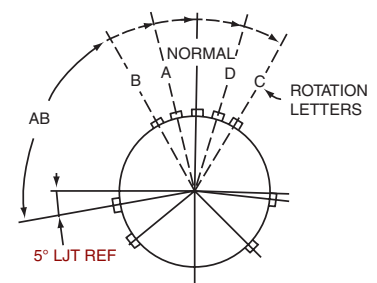
7. ALTERNATE KEYING POSITION
"A" designates Alternate keying connector assembly. Other basic alternate keys are "B", "C" and "D". No letter required for normal rotation (no rotation) position.

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the minor keys are fixed. AB angles shown are viewed from the front face of the connector, a receptacle is shown below. The angles for the plug are exactly the same except the direction of rotation is opposite of that shown for the receptacle.

The "N" designation is not referenced in part number, it is omitted.

LJT Key/Keyway Rotation

Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

MIL-DTL-38999/ 27599, Series I LJT

How to Order (Commercial)

38999 III

38999 II

38999 I

SJT

Aquacon

2M

83723

26482

26500

1. Table & Style	2. Service Class	3. Shell Size -Insert Arrg.	4. Contact Style	5. Alternate Keying Position	6. Finish Variation Suffix**
LJT00	Y	9-35	P	B	(162)

** If Required

1. SERIES AND STYLE

		Long Junior Tri-Lock	High Temperature	Chemical and Fuel Resistant
Hermetic	Wall Mounting Receptacle	LJT00	LJTS00	LJTN00
	Jam Nut Receptacle	LJT07	LJTS07	LJTN07
	Solder Mounting Receptacle	LJTI	LJTSI	LJTNI

2. SERVICE CLASS HERMETIC

Y	Same as "H" with interfacial seal.
H	Hermetic applications- Fused compression glass sealed inserts. Leakage rate less than .01 micron cu. ft./hr. (1 x 10 ⁻⁷ cc/sec.) at 15 psi differential.

3. SHELL SIZE & INSERT ARRANGEMENTS

See table on page 5-6

First number represents Shell Size, second number is the Insert Arrangement.

4. CONTACTS

P	Pin Contacts - Solder
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5. ALTERNATE KEYING POSITION

"A" designates Alternate keying connector assembly. Other basic alternate keys are "B", "C" and "D". No letter required for normal rotation (no rotation) position.

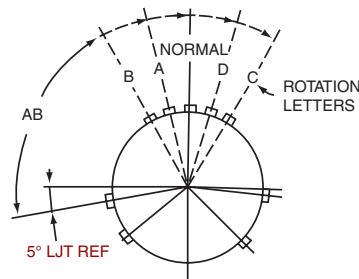
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the minor keys are fixed.

AB angles shown are viewed from the front face of the connector, a receptacle is shown below. The angles for the plug are exactly the same except the direction of rotation is opposite of that shown for the receptacle.

The "N" designation is not referenced in part number, it is omitted.

LJT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

6. Hermetic FINISHES

Finish	Finish Suffix
Carbon steel shell tin plated & contacts	(468)
Stainless steel shell passivated	(162)
Stainless steel nickel plated	()

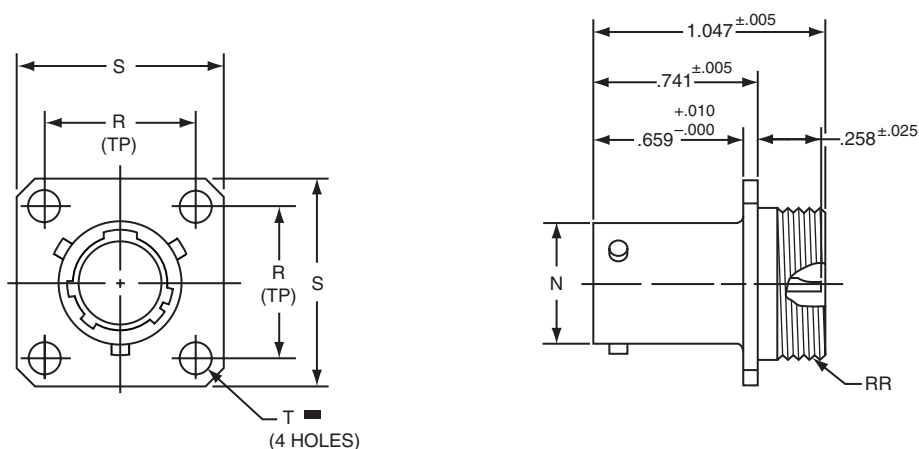
Wall Mounting Receptacle - Hermetic

Military (MS27469), Commercial (LJT00)

PART NUMBER BUILDER Page 31-32

MILITARY
MS27469Y

COMMERCIAL
LJT00H, LJT00Y
LJTS00Y



COMMERCIAL

- * LJT00H-XX-XXX
- ** LJT00Y-XX-XXX
- *** LJTS00Y-XX-XXX

MILITARY

- MS27469YXXD
- MS27469YXXE

■ $\text{⊕} \text{ .005 DIA } \text{Ⓜ}$

- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. $+.001$ $-.005$	R (TP)	S $\pm .016$	T Dia. $\pm .005$	RR Thread Class 2A
9	.572	.719	.938	.128	.6875-24 UNEF
11	.700	.812	1.031	.128	.8125-20 UNEF
13	.850	.906	1.125	.128	.9375-20 UNEF
15	.975	.969	1.219	.128	1.0625-18 UNEF
17	1.100	1.062	1.312	.128	1.1875-18 UNEF
19	1.207	1.156	1.438	.128	1.3125-18 UNEF
21	1.332	1.250	1.562	.128	1.4375-18 UNEF
23	1.457	1.375	1.688	.147	1.5625-18 UNEF
25	1.582	1.500	1.812	.147	1.6875-18 UNEF

All dimensions for reference only.

38999 III

38999 II

38999 I

SJT

Aquacon

2M

83723

26482

26500

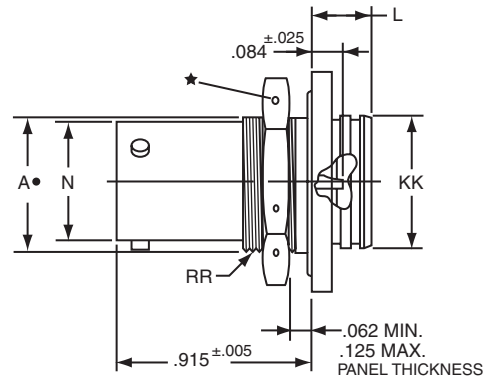
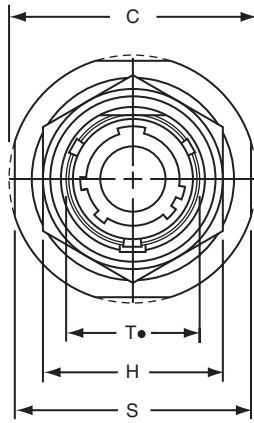
Jam Nut Receptacle - Hermetic

Military (MS27470) Commercial (LJT07 & LJTS07)

PART NUMBER BUILDER Page 31-32

MILITARY
MS27470Y

COMMERCIAL
LJT07H, LJT07Y
LJTS07Y



COMMERCIAL

MILITARY

* LJT07H-XX-XXX
** LJT07Y-XX-XXX
*** LJTS07Y-XX-XXX

MS27470YXXD
MS27470YXXE

- ★ .059 Dia. Min. 3 lockwire holes.
Formed lockwire hole design
(6 holes) is optional.
- + "D" shaped mounting hole dimensions.
- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	A+ +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.000 -.005	S ±.016	T+ +.010 -.000	KK +.011 -.000	RR Thread Class 2A (Plated)
9	.669	1.199	.875	.297	.572	1.062	.697	.642	.6875-24 UNEF
11	.769	1.386	1.000	.297	.700	1.250	.822	.766	.8125-20 UNEF
13	.955	1.511	1.188	.297	.850	1.375	1.007	.892	1.0000-20 UNEF
15	1.084	1.636	1.312	.297	.975	1.500	1.134	1.018	1.1250-18 UNEF
17	1.208	1.761	1.438	.297	1.100	1.625	1.259	1.142	1.2500-18 UNEF
19	1.333	1.949	1.562	.328	1.207	1.812	1.384	1.268	1.3750-18 UNEF
21	1.459	2.073	1.688	.328	1.332	1.938	1.507	1.392	1.5000-18 UNEF
23	1.580	2.199	1.812	.328	1.457	2.062	1.634	1.518	1.6250-18 UNEF
25	1.709	2.328	2.000	.328	1.582	2.188	1.759	1.642	1.7500-18 UNS

All dimensions for reference only.

38999 III

38999 II

38999 I

SJT

Aquacon

2M

83723

26482

26500

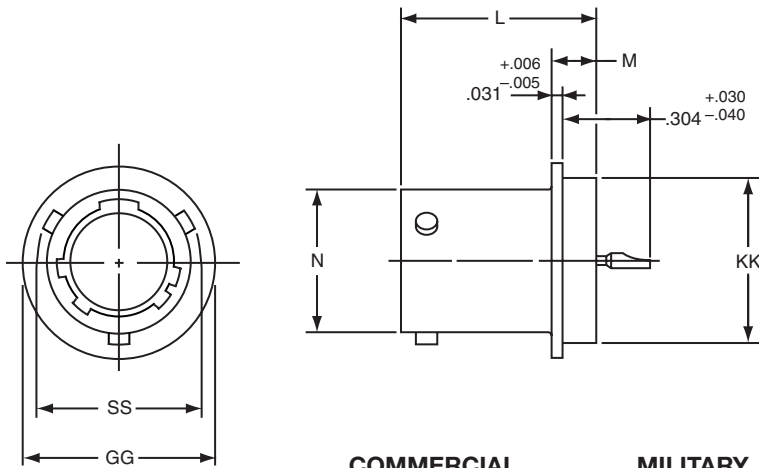
Solder Mounting Receptacle - Hermetic

Military (MS27471), Commercial (LJTI & LJTSI)

PART NUMBER BUILDER Page 31-32

MILITARY
MS27471Y

COMMERCIAL
LJTIH, LJTIY
LJTSIY



COMMERCIAL

- * LJTIH-XX-XXX
- ** LJTIY-XX-XXX
- *** LJTSIY-XX-XXX

MILITARY

- MS27471YXXD
- MS27471YXXE

- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. +.001 -.005	SS Dia. +.000 -.016	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010	KK Dia. +.001 -.005
9	.572	.662	.789	.125	.750	.672
11	.700	.810	.789	.125	.844	.781
13	.850	.960	.789	.125	.969	.906
15	.975	1.085	.789	.125	1.094	1.031
17	1.100	1.210	.789	.125	1.218	1.156
19	1.207	1.317	.789	.125	1.312	1.250
21	1.332	1.442	.789	.125	1.438	1.375
23	1.457	1.567	.821	.156	1.563	1.500
25	1.582	1.692	.821	.156	1.688	1.625

All dimensions for reference only. Weld mounting hermetic receptacle also available. Consult Amphenol Aerospace for availability and dimensions.

- 38999 III
- 38999 II
- 38999 I
- SJT
- Aquacon
- 2M
- 83723
- 26482
- 26500

PCB Hermetic Wall Mounting Receptacle

Commercial (LJT00)

38999 III

38999 II

38999 I

SJT

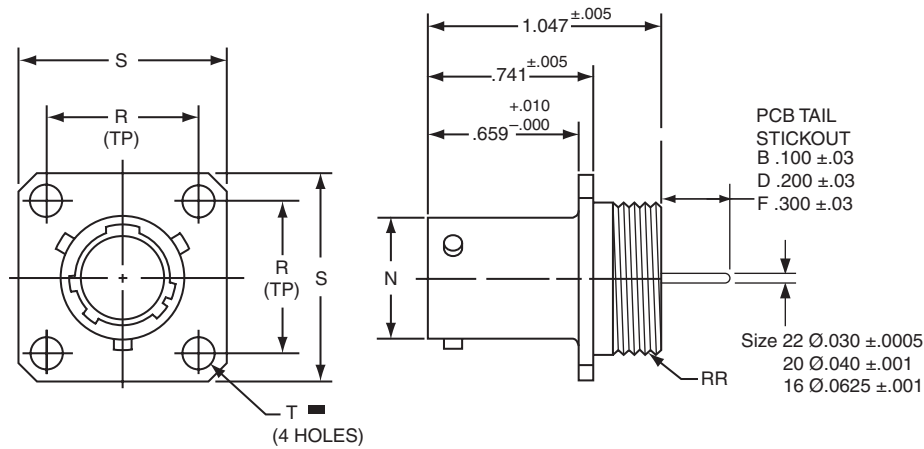
Aquacon

2M

83723

26482

26500



1. 2. 3. 4. 5. 6.

PART #	Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Position	Shell Finish	Tail Length
See chart below	10-626	401	-35	P	1	B

HOW TO ORDER

1. BASE NUMBER

10-626

Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. CODED SHELL SIZE

See chart below **401-409**, designates size 9-25 shell size. Example: **401** = Size 9 Shell

3. INSERT ARRANGEMENT

-35

Designates Insert Arrangement Number. Refer to insert availability chart on page 5-6.

4. CONTACT TYPE/ALTERNATE KEYING

P

Designates Pin Contacts in Normal Position. Refer to page 31 for alternate rotation letters to use.

5. SHELL FINISH

- 1** Hermetic seal, passivated Stainless Steel, 200°C
- 2** Hermetic seal, Stainless Steel w/Nickel Plate
- 3** Carbon Steel w/reflowed tin plate

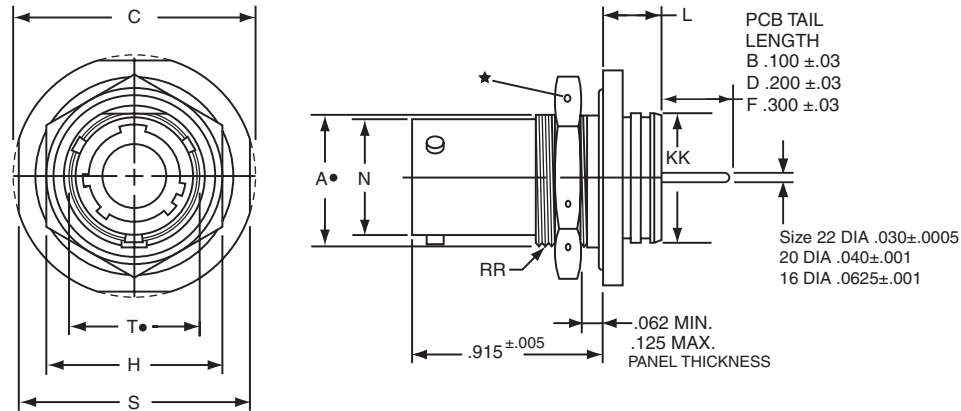
6. TAIL LENGTH

- B** .100±.03
- D** .200±.03
- F** .300±.03

All dimensions for reference only.

■ (+) .005 DIA (M)

Shell Size	Part Number	N Dia. +.001 -.005	R TP)	S ±.016	T Dia. ±.005	RR Thread Class 2A
9	10-626 401 -XXX	.572	.719	.938	.128	.6875-24 UNEF
11	402 -XXX	.700	.812	1.031	.128	.8125-20 UNEF
13	403 -XXX	.850	.906	1.125	.128	.9375-20 UNEF
15	404 -XXX	.975	.969	1.219	.128	1.0625-18 UNEF
17	405 -XXX	1.100	1.062	1.312	.128	1.1875-18 UNEF
19	406 -XXX	1.207	1.156	1.438	.128	1.3125-18 UNEF
21	407 -XXX	1.332	1.250	1.562	.128	1.4375-18 UNEF
23	408 -XXX	1.457	1.375	1.688	.147	1.5625-18 UNEF
25	409 -XXX	1.582	1.500	1.812	.147	1.6875-18 UNEF



1. 2. 3. 4. 5. 6.

PART #	Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Position	Shell Finish	Tail Length
See chart below	10-626	411	-35	P	1	B

HOW TO ORDER

1. BASE NUMBER

10-626 Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. CODED SHELL SIZE

See chart below **411-419**, designates size 9-25 shell size. Example: **411** = Size 9 Shell

3. INSERT ARRANGEMENT

-35 Designates Insert Arrangement Number. Refer to insert availability chart on page 5-6.

4. CONTACT TYPE/ALTERNATE KEYING

P Designates Pin Contacts in Normal Position. Refer to page 31 for alternate rotation letters to use.

5. SHELL FINISH

- 1** Hermetic seal, passivated Stainless Steel, 200°C
- 2** Hermetic seal, Stainless Steel w/Nickel Plate
- 3** Carbon Steel w/reflowed tin plate

6. TAIL LENGTH

- B** .100±.03
- D** .200±.03
- F** .300±.03

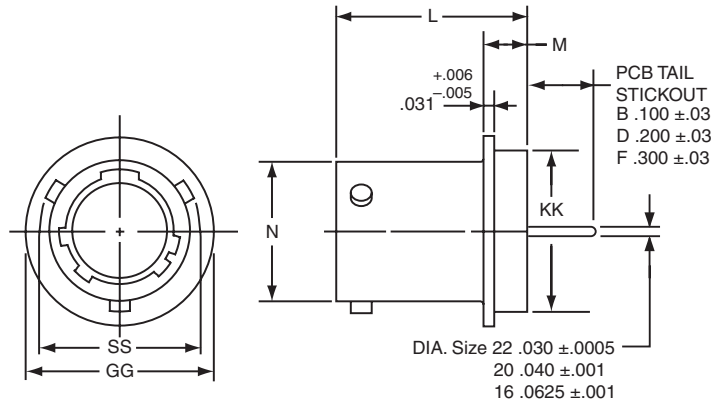
Shell Size	Part Number	A+ +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.000 -.005	S ±.016	T+ +.010 -.000	KK +.011 -.000	RR Thread Class 2A (Plated)
9	10-626 411 -XXX	.669	1.199	.875	.297	.572	1.062	.697	.642	.6875-24 UNEF
11	412 -XXX	.769	1.386	1.000	.297	.700	1.250	.822	.766	.8125-20 UNEF
13	413 -XXX	.955	1.511	1.188	.297	.850	1.375	1.007	.892	1.0000-20 UNEF
15	414 -XXX	1.084	1.636	1.312	.297	.975	1.500	1.134	1.018	1.1250-18 UNEF
17	415 -XXX	1.208	1.761	1.438	.297	1.100	1.625	1.259	1.142	1.2500-18 UNEF
19	416 -XXX	1.333	1.949	1.562	.328	1.207	1.812	1.384	1.268	1.3750-18 UNEF
21	417 -XXX	1.459	2.073	1.688	.328	1.332	1.938	1.507	1.392	1.5000-18 UNEF
23	418 -XXX	1.580	2.199	1.812	.328	1.457	2.062	1.634	1.518	1.6250-18 UNEF
25	419 -XXX	1.709	2.328	2.000	.328	1.582	2.188	1.759	1.642	1.7500-18 UNS

All dimensions for reference only. Weld mounting hermetic receptacle also available. Consult Amphenol for availability and dimensions.

All dimensions for reference only.

PCB Hermetic Solder Mounting Receptacle

Commercial (LJTI)



	1.	2.	3.	4.	5.	6.
PART #	Base Number	Coded Shell Size	Insert Arrg.	Contact Type/ Alt. Keying Position	Shell Finish	Tail Length
See chart below	10-626	421	-35	P	1	B

HOW TO ORDER

1. BASE NUMBER	
10-626	Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. CODED SHELL SIZE	
	See chart below 421-429 , designates size 9-25 shell size. Example: 421 = Size 9 Shell

3. INSERT ARRANGEMENT	
-35	Designates Insert Arrangement Number. Refer to insert availability chart on page 5-6.

4. CONTACT TYPE/ALTERNATE KEYING	
P	Designates Pin Contacts in Normal Position. Refer to page 31 for alternate rotation letters to use.

5. SHELL FINISH	
1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

6. TAIL LENGTH	
B	.100±.03
D	.200±.03
F	.300±.03

Shell Size	Part Number	N Dia. +.001 -.005	SS Dia. +.000 -.016	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010	KK Dia. +.001 -.005
9	10-626 421 -XXX	.572	.662	.789	.125	.750	.672
11	422 -XXX	.700	.810	.789	.125	.844	.781
13	423 -XXX	.850	.960	.789	.125	.969	.906
15	424 -XXX	.975	1.085	.789	.125	1.094	1.031
17	425 -XXX	1.100	1.210	.789	.125	1.218	1.156
19	426 -XXX	1.207	1.317	.789	.125	1.312	1.250
21	427 -XXX	1.332	1.442	.789	.125	1.438	1.375
23	428 -XXX	1.457	1.567	.821	.156	1.563	1.500
25	429 -XXX	1.582	1.692	.821	.156	1.688	1.625

All dimensions for reference only.
Weld mounting hermetic receptacle also available.
Consult Amphenol for availability and dimensions.