

# Space-grade, environmental connectors

## MIL-DTL-38999 Series III Type SSQ Connectors

### Plug and Receptacle Connectors IAW SSQ 21635

Part Number Development					
Sample Part Number	257-745	M	-6G	-25-35	S N
Series / Basic Part No.	257-745 = Plug and Receptacle Connectors IAW SSQ 21635				
Material/Finish	MA = Aluminum, matte finish, electroless nickel ME = Aluminum, electroless nickel MT = Aluminum, nickel PTFE Z1 = CRES (per SAE-AMS-QQ-S-763), passivated				
Connector Mounting	6G = Plug with EMI Spring (standard silkscreen marking) 66G = Plug with EMI spring (reverse silkscreen marking) 07 = Receptacle, jam-nut mount 007 = Receptacle, jam-nut mount (reverse silkscreen marking) D0 = Receptacle, wall mount DDO = Receptacle, wall mount (reverse silkscreen marking)				
Shell Size-Insert Arrangement*	Per MIL-STD-1560 and SSQ 21635				
Insert Designator	S = Socket insert, with socket contacts B = Socket gender, less socket contacts P = pin insert, with pin contacts A = pin gender, less pin contacts				
Alternate Polarization*	N, A, B, C, D, E				

\*Refer to section A for complete details. Refer to Space-Grade Guidelines material (IAW NASA EEE INST-002) for outgassing and screening modification codes, on pages 60 and 61. Modification codes may be added directly to the end of any valid part number

**NOTES:**

- Material/ finish:
  - Shell, coupling ring, segments - see part number development, finish
  - Insulators - high grade rigid dielectric / N.A.
  - Seals: fluorosilicone/N.A.
  - Rivet: SST/passivate
  - Detent spring: sst/passivate
  - Retaining clip: copper alloy
  - Contacts: copper alloy/gold
  - Grounding spring: copper/gold
- When ordered with "P" or "S", connector supplied with contacts (including spares), inertion/removal tools and sealing plugs IAW MIL-DTL-38999
- For size 8 power contacts (Ref: 680-043-08, 680-044-08 for use in 25L-07 and other arrangements) use crimp tool Astro AMT23B (M22520/23-01), die assembly Astro AMT23218DA and positioner Astro AMT23223L-BX or equivalent, use insertion/extraction tool Astro ATBS5279, or equivalent
- Blue color band indicates rear release retention system

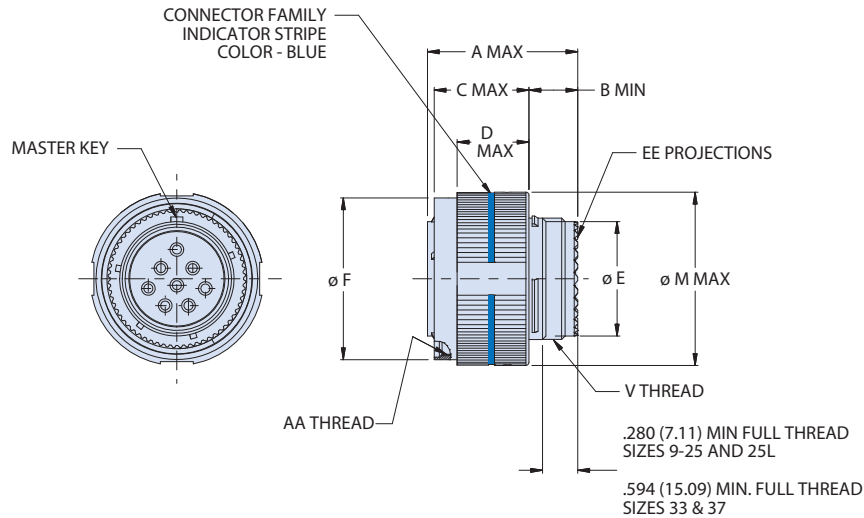
KEY & KEYWAY LOCATION				
POS	A	B	C	D
N	80°	142°	188°	293°
A	135°	170°	188°	310°
B	49°	169°	188°	244°
C	66°	140°	188°	257°
D	62°	145°	188°	280°
E	79°	153°	188°	272°

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#### 6G & 66G - PLUG



Dimensions										
SHELL SIZE	AA THREAD CLASS 2B (PLATED) TRIPLE BLUNT START	A MAX	B MIN	C MAX	D MAX	ø E +0.001 -0.005	ø F +0.006 0.000	ø M MAX	V THREAD 1.0-6g,0.100R	NO. OF EE PROJECTIONS
9	.6250-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	0.415 (10.54)	0.727 (18.47)	0.859 (21.82)	M12	12
11	.7500-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	0.533 (13.54)	0.832 (21.13)	0.969 (24.61)	M15	16
13	0.875-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	0.651 (16.54)	1.003 (25.48)	1.141 (28.98)	M18	20
15	1.0000-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	0.809 (20.55)	1.131 (28.73)	1.269 (32.23)	M22	24
17	1.1875-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	0.927 (23.55)	1.268 (32.21)	1.391 (35.33)	M25	28
19	1.2500-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	1.045 (26.54)	1.375 (34.92)	1.500 (38.10)	M28	32
21	1.3750-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	1.163 (29.54)	1.502 (38.15)	1.625 (41.28)	M31	36
23	1.5000-0.1P-0.3L-TS	1.221 (31.01)	0.310 (7.87)	0.840 (21.34)	0.587 (14.91)	1.281 (32.54)	1.619 (41.12)	1.750 (44.45)	M34	40
25	1.6250-0.1P-0.3L-TS	2.579 (65.51)	1.307 (33.20)	1.126 (28.60)	0.845 (21.46)	1.399 (35.53)	1.746 (44.35)	1.750 (44.45)	M34	40
25L	1.6250-0.1P-0.3L-TS	2.579 (65.51)	1.307 (33.20)	1.126 (28.60)	0.845 (21.46)	1.397 (35.48) ±0.003 (0.08)	1.843 (46.81)	1.875 (47.63)	M37	44
33*	1.875-0.1P-0.3L-TS	2.579 (65.51)	1.170 (29.72)	1.257 (31.93)	0.955 (24.26)	1.681 (42.70) ±0.004 (0.10)	2.162 (54.91)	2.203 (55.96)	M45	56
37*	2.1250-0.1P-0.3L-TS	2.579 (65.51)	1.170 (29.72)	1.257 (31.93)	0.955 (24.26)	1.856 (47.14) ±0.004 (0.10)	2.352 (59.74)	2.391 (60.73)	M50	64

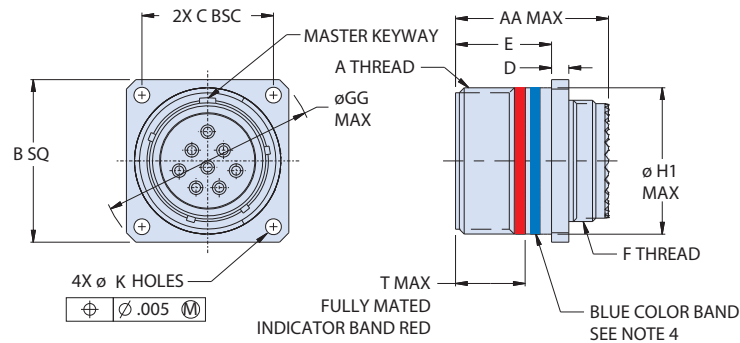
\* Contact factory for availability

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### Plug and Receptacle Connectors IAW SSQ 21635

#### DD0 & DD0- WALL MOUNT RECEPTACLE WITH STANDARD HOLES



Dimensions												
SHELL SIZE	A THREAD	B SQ	C BSC	D	E	F THREAD	AA MAX	T MAX	ø K HOLES	ø GG MAX	ø H1 MAX	
9	.6250-.1P-.3L-TS-2A	0.948 (24.08) 0.928 (23.57)	0.719 (18.26)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M12 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)	0.136 (3.45) 0.123 (3.12)	1.262 (32.05)	0.625 (15.88)	
11	.7500-.1P-.3L-TS-2A	1.041 (26.44) 1.021 (25.93)	0.812 (20.62)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M15 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		1.387 (35.23)	0.750 (19.05)	
13	.8750-.1P-.3L-TS-2A	1.135 (28.83) 1.115 (28.32)	0.906 (23.01)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M18 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		1.512 (38.40)	0.875 (22.23)	
15	1.0000-.1P-.3L-TS-2A	1.229 (31.22) 1.209 (30.71)	0.969 (24.61)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M22 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		1.637 (41.58)	1.000 (25.40)	
17	1.1875-.1P-.3L-TS-2A	1.322 (33.58) 1.302 (33.07)	1.062 (26.97)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M25 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		1.762 (44.75)	1.1875 (30.16)	
19	1.2500-.1P-.3L-TS-2A	1.448 (36.78) 1.428 (36.27)	1.156 (29.36)	0.096 (2.44) 0.085 (2.16)	0.823 (20.90) 0.767 (19.48)	M28 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		1.887 (47.93)	1.250 (31.75)	
21	1.3750-.1P-.3L-TS-2A	1.572 (39.93) 1.552 (39.42)	1.250 (31.75)	0.126 (3.20) 0.115 (2.92)	0.791 (20.09) 0.736 (18.69)	M31 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		2.012 (51.10)	1.375 (34.92)	
23	1.5000-.1P-.3L-TS-2A	1.698 (43.13) 1.678 (42.62)	1.375 (34.92)	0.126 (3.20) 0.115 (2.92)	0.791 (20.09) 0.736 (18.69)	M34 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)		0.162 (4.11) 0.149 (3.78)	2.200 (55.88)	1.500 (38.10)
25	1.6250-.1P-.3L-TS-2A	1.822 (46.28) 1.802 (45.77)	1.500 (38.10)	0.126 (3.20) 0.115 (2.92)	0.791 (20.09) 0.736 (18.69)	M37 X 1.0-6g 0.100R	1.240 (31.50)	0.519 (13.18)			2.387 (60.63)	1.625 (41.28)
25L	1.6250-.1P-.3L-TS-2A	1.818 (46.18) 1.807 (45.90)	1.500 (38.10)	0.203 (5.16) 0.183 (4.65)	1.161 (29.49) 1.151 (29.24)	M37 X 1.0-6g 0.100R	2.600 (66.04)	0.879 (22.33)			2.453 (62.31)	1.625 (41.28)
33*	1.875-.1P-.3L-TS-2A	2.318 (58.88) 2.307 (58.60)	1.750 (44.45)	0.203 (5.16) 0.183 (4.65)	1.161 (29.49) 1.151 (29.24)	M45 X 1.0-6g 0.100R	2.600 (66.04)	0.879 (22.33)	0.217 (5.51)	3.043 (77.29)	1.875 (47.63)	
37*	2.125-.1P-.3L-TS-2A	2.490 (63.25) 2.479 (62.97)	1.922 (48.82)	0.203 (5.16) 0.183 (4.65)	1.161 (29.49) 1.151 (29.24)	M50 X 1.0-6g 0.100R	2.600 (66.04)	0.879 (22.33)	0.204 (5.18)	3.293 (83.64)	2.125 (53.97)	

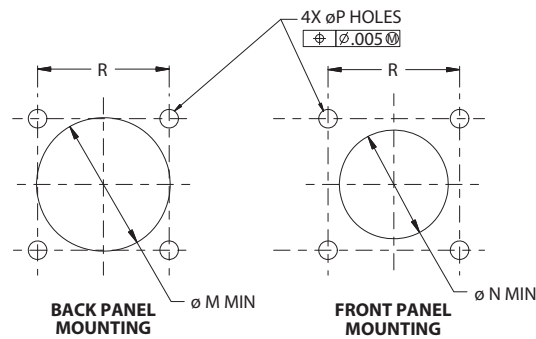
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### Plug and Receptacle Connectors IAW SSQ 21635

#### D0 & DD0-WALL MOUNT RECEPTACLE WITH STANDARD HOLES



**D0 and DD0 PANEL CUT-OUT DIMENSIONS**

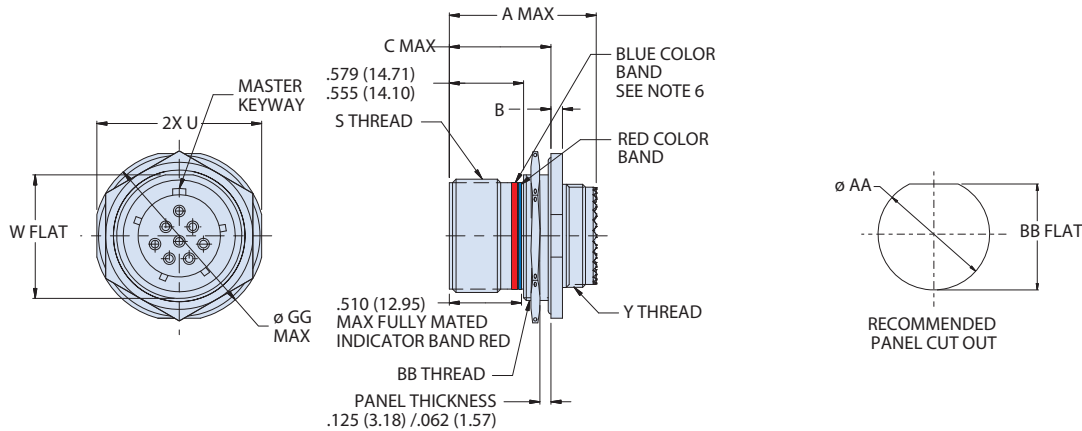
SHELL SIZE	$\phi M$ MIN	$\phi N$ MIN	P HOLES	R BSC
9	0.656 (16.66)	0.516 (13.11)	0.133 (3.38) 0.123 (3.12)	0.719 (18.26)
11	0.796 (20.22)	0.625 (15.88)		0.812 (20.62)
13	0.922 (23.42)	0.750 (19.05)		0.906 (23.01)
15	1.047 (26.59)	0.906 (23.01)		0.969 (24.61)
17	1.219 (30.96)	1.016 (25.81)		1.062 (26.97)
19	1.297 (32.94)	1.141 (28.98)		1.156 (29.36)
21	1.422 (36.12)	1.266 (32.16)		1.250 (31.75)
23	1.547 (39.29)	1.375 (34.92)	0.159 (4.04) 0.149 (3.78)	1.375 (34.92)
25	1.672 (42.47)	1.484 (37.69)	0.155 (3.94)	1.500 (38.10)
25L	1.672 (42.47)	1.484 (37.69)	0.145 (3.68)	1.500 (38.10)
33	1.922 (48.82)	1.798 (45.67)	0.210 (5.33)	1.750 (44.45)
37	2.172 (55.17)	1.996 (50.70)	0.200 (5.08)	1.922 (48.82)

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### Plug and Receptacle Connectors IAW SSQ 21635

#### 07 & 007 - JAM NUT MOUNT RECEPTACLE



Dimensions											
SHELL SIZE	A MAX	S THREAD	GG MAX	U	W FLAT	BB THREAD	Y THREAD	B	C MAX	$\phi AA$	BB
9	1.609 (40.87)	.6250-1P-3L-TS-2A	1.200 (30.48)	1.077 (27.36) 1.047 (26.59)	0.655 (16.64) 0.645 (16.38)	M17 X 1.0-6g 0.100R	M12 X 1.0-6g 0.100R	0.114 (2.90) 0.083 (2.11)	1.236 (31.39) 1.243 (31.57)	0.703 (17.86) 0.693 (17.60)	0.661 (16.79) 0.654 (16.61)
11		.7500-1P-3L-TS-2A	1.387 (35.23)	1.265 (32.13) 1.235 (31.37)	0.755 (19.18) 0.745 (18.92)	M20 X 1.0-6g 0.100R	M15 X 1.0-6g 0.100R			0.835 (21.21) 0.825 (20.96)	0.771 (19.58) 0.761 (19.33)
13		.8750-1P-3L-TS-2A	1.512 (38.40)	1.390 (35.31) 1.360 (34.54)	0.942 (23.93) 0.932 (23.67)	M25 X 1.0-6g 0.100R	M18 X 1.0-6g 0.100R			1.020 (25.91) 1.010 (25.65)	0.955 (24.26) 0.945 (24.00)
15		1.0000-1P-3L-TS-2A	1.637 (41.58)	1.515 (38.48) 1.485 (37.72)	1.066 (27.08) 1.056 (26.82)	M28 X 1.0-6g 0.100R	M22 X 1.0-6g 0.100R			1.145 (29.08) 1.135 (28.83)	1.085 (27.56) 1.075 (27.30)
17		1.1875-1P-3L-TS-2A	1.762 (44.75)	1.640 (41.66) 1.610 (40.89)	1.191 (30.25) 1.181 (30.00)	M32 X 1.0-6g 0.100R	M25 X 1.0-6g 0.100R			1.270 (32.26) 1.260 (32.00)	1.210 (30.73) 1.200 (30.48)
19		1.2500-1P-3L-TS-2A	1.950 (49.53)	1.827 (46.41) 1.797 (45.64)	1.316 (33.43) 1.306 (33.17)	M35 X 1.0-6g 0.100R	M28 X 1.0-6g 0.100R			1.395 (35.43) 1.385 (35.18)	1.335 (33.91) 1.325 (33.65)
21		1.3750-1P-3L-TS-2A	2.074 (52.68)	1.953 (49.61) 1.923 (48.84)	1.441 (36.60) 1.431 (36.35)	M38 X 1.0-6g 0.100R	M31 X 1.0-6g 0.100R			1.520 (38.61) 1.510 (38.35)	1.460 (37.08) 1.450 (36.83)
23		1.5000-1P-3L-TS-2A	2.200 (55.88)	2.077 (52.76) 2.047 (51.99)	1.566 (39.78) 1.556 (39.52)	M41 X 1.0-6g 0.100R	M34 X 1.0-6g 0.100R			1.645 (41.78) 1.635 (41.53)	1.585 (40.26) 1.575 (40.00)
25		1.6250-1P-3L-TS-2A	2.324 (59.03)	2.203 (55.96) 2.173 (55.19)	1.691 (42.95) 1.681 (42.70)	M44 X 1.0-6g 0.100R	M37 X 1.0-6g 0.100R			1.770 (44.96) 1.760 (44.70)	1.710 (43.43) 1.700 (43.18)
25L		1.6250-1P-3L-TS-2A	2.324 (59.03)	2.203 (55.96) 2.173 (55.19)	1.691 (42.95) 1.681 (42.70)	M44 X 1.0-6g 0.100R	M37 X 1.0-6g 0.100R			0.198 (5.03) 0.183 (4.65)	1.536 (39.01)
33*	1.8750-1P-3L-TS-2A	2.606 (66.19)	2.484 (63.09) 2.454 (62.33)	1.927 (48.95) 1.917 (48.69)	M50 X 1.0-6g 0.100R	M45 X 1.0-6g 0.100R	2.006 (50.95) 1.996 (50.70)	1.946 (49.43) 1.935 (49.15)			
37*	2.1250-1P-3L-TS-2A	3.012 (76.50)	2.843 (72.21) 2.813 (71.45)	2.276 (57.81) 2.266 (57.56)	M60 X 1.0-6g 0.100R	M50 X 1.0-6g 0.100R	2.400 (60.96) 2.390 (60.71)	2.295 (58.29) 2.285 (58.04)			

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