

NOTICE

AS31081

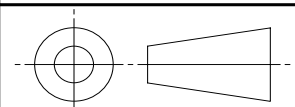
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THIRD ANGLE PROJECTION



ISSUED 2004-06

CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: MIL-C-5015

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONNECTORS, PLUG, ELECTRIC, SOLDER
CONTACT, 90 DEGREE, AN TYPE

AS31081
SHEET 1 OF 9

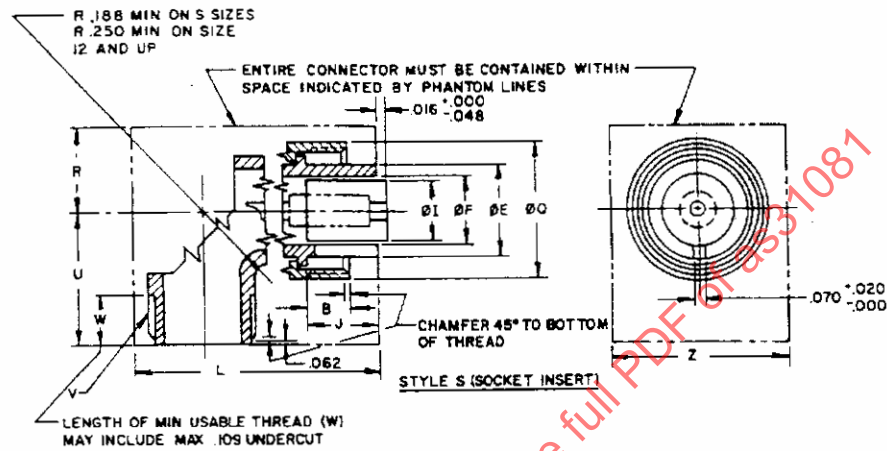
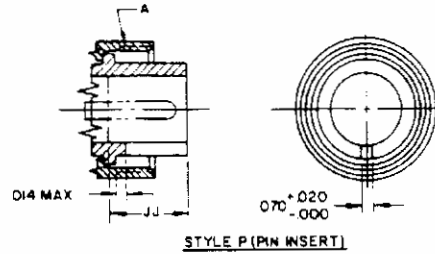
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CLASS A-SOLID SHELL

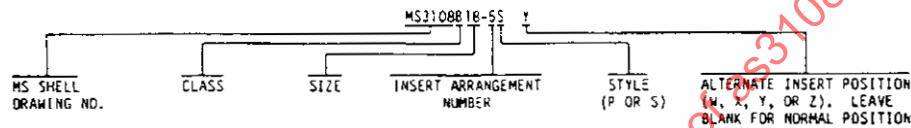
CLASS B-SPLIT SHELL

SIZE	A COUPLING THREAD	B +.000 -.062 EXTENSION COUPLING RING	ØE +.000 -.015	ØF MIN	ØI MAX INSERT	J LENGTH ENGAGE- MENT +.005	(4) JJ +.031 -.000 INSERT LOCATION	ØQ MAX COUPLING RING	U MAX	V THREAD	W MIN USABLE THREAD	R MAX	Z MAX CLASS B ONLY	FOR INSERT ARRANGEMENT SEE	
8S	1/2-28	.375	.365	.252	.250	.531	.562	.844	.938	1/2-28	.375	.422	.844	MIL-STD-1651	
10S	5/8-24		.440	.323	.320			1.750	.969	1.000		.485	.969		
10SL			.446	—	.440			1.812		5/8-24		.531	1.062		
12S	3/4-20		.555	.450	.448			2.000	1.062	1.062					
12		.625			.719	.750	2.250								
14S	7/8-20	.375	.675	.526	.525	.531	.562	2.125	1.156	1.125	3/4-20	.656	1.156		
14		.625				.719	.750	2.312							
16S	1-20	.375	.805	.651	.650	.531	.562	2.375	1.250	1.188	7/8-20	.750	1.312		
16								2.562							
18	1-1/8-18		.930	.776	.770			2.688	1.344	1.312	1-20	.828	1.344		
20	1-1/4-18		1.050	.932	.925			3.031	1.469			.906	1.625		
22	1-3/8-18		1.175	1.026	1.020	.719	.750	1.594	1.375	1-3/16-18		.969			
24	1-1/2-18	.625	1.300	1.151	1.145			3.406	1.719			1.031	2.000		
28	1-3/4-18		1.520	1.370	1.365			1.969	1.562	1-7/16-18		1.156			
32	2-1/8-18		1.770	1.620	1.615			3.750	2.219	1.875	1-3/4-18	.438	1.312		2.500
36	2-1/4-16		1.980	1.838	1.830			3.938	2.469	2.062	2-1/8-18		1.438		
40	2-1/2-16		2.230	2.057	2.045			4.750	2.719	2.125	2-1/4-16	.500	1.562	3.031	

NOTES:

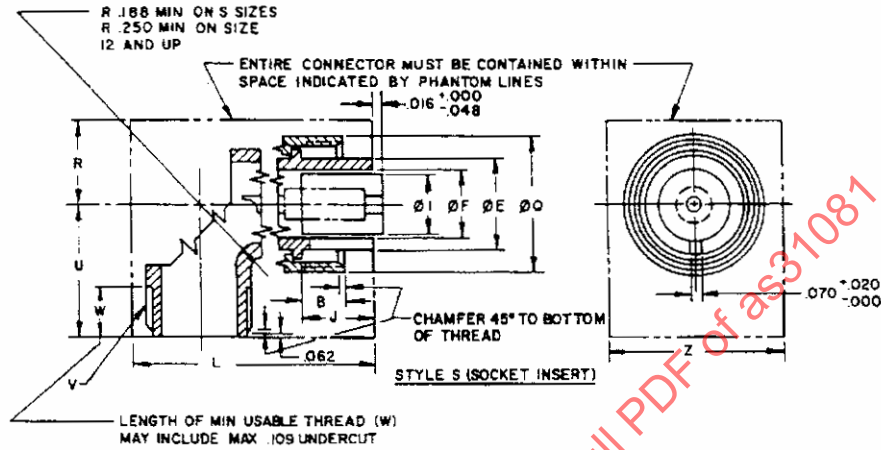
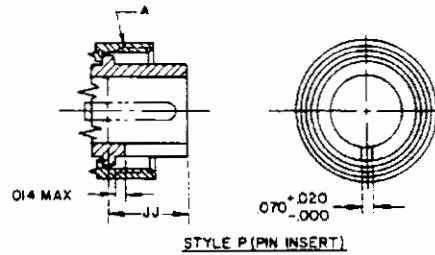
- (a) CLASS A PLUGS ARE CANCELLED AFTER 1 JAN 1991. FOR REPLACEMENT PURPOSES USE MS31088. MANUFACTURES MAY CONTINUE TO SUPPLY MS3108A CONNECTORS UNTIL 1 JAN 1992 OR EXHAUST THEIR INVENTORIES, WHICHEVER COMES FIRST. FOR SHIPBOARD JACKETED CABLE USE MS3408.
- (b) CLASS B PLUGS ARE INACTIVE FOR NEW DESIGN AFTER 1 JAN 1991.
- (c) WHERE RESILIENT INSERTS ARE USED, JJ MAY BE .109 LESS THAN THAT INDICATED.
- (d) SOCKET INSERT OF HARD MATERIAL SHALL EXTEND .016 MAXIMUM BEYOND OR .032 MAXIMUM BELOW SHELL. SOCKET INSERT OF RESILIENT MATERIAL SHALL EXTEND .047 +.000 -.047 BEYOND SHELL AS SHOWN.
- (e) MS31088 CONNECTORS REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING MS3108A, AN3108A OR AN3108B CONNECTORS.

EXAMPLE OF PART NUMBER:



DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS $\pm .016$. THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

CERTAIN PROVISIONS OF THIS SPECIFICATION SHEET ARE THE SUBJECT OF INTERNATIONAL STANDARDIZATION AGREEMENT NEPR 28. WHEN AMENDMENT, REVISION OR CANCELLATION OF THIS SPECIFICATION SHEET IS PROPOSED WHICH WILL MODIFY THE INTERNATIONAL AGREEMENT CONCERNED, THE PREPARING ACTIVITY WILL TAKE APPROPRIATE ACTION THROUGH INTERNATIONAL STANDARDIZATION CHANNELS INCLUDING DEPARTMENTAL STANDARDIZATION OFFICES TO CHANGE THE AGREEMENT OR MAKE OTHER APPROPRIATE ACCOMODATIONS.



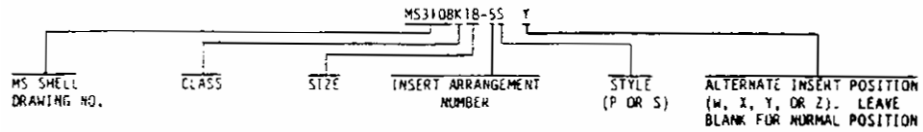
CLASS K-FIREWALL

SIZE	A COUPLING THREAD	B +.000 -.062 EXTENSION COUPLING RING	DE +.000 -.015	DF MIN	DI MAX INSERT	J LENGTH ENGAGE- MENT	JJ +.031 -.000 INSERT LOCATION	DO MAX COUPLING RING	U MAX	V THREAD	W MIN USABLE THREAD	R MAX	Z MAX	FOR INSERT ARRANGEMENT SEE
8S	1/2-28		.365	.252	.250			1.750	.844	1.000		.422	.844	MIL-STD- 1651
10S			.440	.323	.320			1.938	.969	1.250		.485	.969	
10SL	5/8-24	.375	.446		.440	.531	.562	2.188						
12S								2.312						
12	3/4-20	.625	.555	.450	.448	.719	.750	2.531	1.062	1.406	5/8-24	.531	1.062	
14S		.375				.531	.562	2.500						
14	7/8-20	.625	.675	.526	.525	.719	.750	2.719	1.172	1.465	3/4-20	.656	1.156	
16S		.375				.531	.562							
16	1 -20		.805	.651	.650			2.938	1.266	1.531	7/8-20	.750	1.312	
18	1-1/8-18		.930	.776	.770			3.188	1.359	1.625	1 -20	.828	1.344	
20	1-1/4-18		1.050	.932	.925			3.375	1.484			.906		
22	1-3/8-18		1.175	1.026	1.020			3.406	1.609	1.688	1-3/16-18	.969	1.625	
24	1-1/2-18	.625	1.300	1.151	1.145	.719	.750	3.875	1.734	2.031		1.031		
28	1-3/4-18		1.520	1.370	1.365			4.094	1.984	2.312	1-7/16-18	1.156	2.000	
32	2 -18		1.770	1.620	1.615			4.438	2.234	2.438	1-3/4-18	1.438	2.500	
36	2-1/4-16		1.980	1.838	1.830			5.000	2.484	2.656	2 -18	1.438		
40	2-1/2-16		2.230	2.057	2.045			5.000	2.719	2.125	2-1/4-16	1.562	3.031	

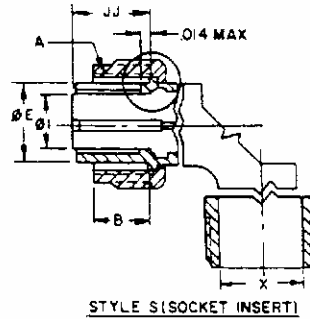
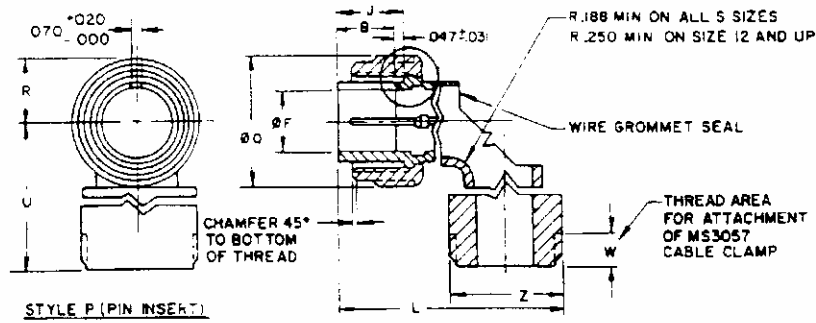
NOTES:

- (a) CLASS K PLUGS ARE INACTIVE FOR NEW DESIGN AFTER 1 JAN 1991. FOR SHIPBOARD JACKETED CABLE USE MS3408.
- (b) MS3108K CONNECTORS REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING AN3108K CONNECTORS.

EXAMPLE OF PART NUMBER:



DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ± 0.016 .
THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
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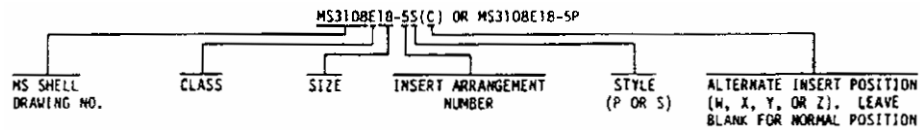
CLASS E - ENVIRONMENT RESISTANT

SIZE	A COUPLING THREAD	B 0.000/-0.062 EXTENSION COUPLING RING	E +0.000 -0.015 MIN OUTSIDE	F MIN INSIDE	G MAX INSERT	H +0.005 -0.007 LENGTH ENGAGE- MENT	J +0.047 -0.000 INSERT LOCATION	L MAX OVERALL LENGTH	Q MAX COUPLING RING	U MAX	X CABLE CLEARANCE MIN	R MAX	W MIN USABLE THREAD	FOR INSERT ARRANGE- MENT SEE	PACKING MS28900 DASH NO.	BY +0.005 -0.010	Z MAX
8S	1/2-28		.365	.252	.250			2.156	.844		.172	.422			-8	.355	1.046
10S	5/8-24	.375	.440	.323	.320	.531	.531	2.188	.969	1.469	.281	.516			-10	.440	
10SL			.446		.440					1.500		.562			-12	.555	1.125
12	3/4-20	.625	.555	.450	.446	.719	.719	2.531	1.062			.625			-14	.675	1.343
14S	7/8-20	.375	.675	.526	.525	.531	.531	2.312	1.156	1.594	.406	.625			-16	.805	1.484
14		.625				.719	.719	2.688							-18	.930	1.809
16S	1-20	.375	.805	.651	.650	.531	.531	2.406	2.278	1.250	1.688	.500	.688		-20	1.050	1.890
16															-22	1.175	2.170
18	1-1/4-18		.930	.776	.770			2.844	1.344	1.781	.531	.750			-24	1.300	2.531
20	1-1/4-18		1.050	.932	.925			3.250	1.469	1.969	.656	.844			-32	1.770	2.650
22	1-3/8-18		1.175	1.026	1.020			3.250	1.594	2.000	.750	.906			-36	1.980	2.922
24	1-3/8-18	.625	1.300	1.151	1.145	.719	.719	3.719	1.719	2.125	.781	.953			-40	2.230	3.531
28	1-3/4-18		1.520	1.370	1.365			3.719	1.969	2.188	.922	1.094					
32	2-1/4-16		1.770	1.620	1.615			4.188	2.219	2.594	1.156	1.234	.438				
36	2-1/4-16		1.980	1.838	1.830			4.297	2.469	2.719	1.250	1.359					
40	2-1/2-16		2.230	2.057	2.047			7.411	2.719	4.730	1.562	1.422	.500				

NOTES:

- (a) CLASS E IS CANCELLED AFTER 1 JAN 1991. MANUFACTURERS MAY CONTINUE TO SUPPLY MS3108E CONNECTORS UNTIL 1 JAN 1992 OR EXHAUST THEIR INVENTORIES, WHICHEVER COMES FIRST. FOR REPLACEMENT PURPOSES USE MS3108R WITH APPROPRIATE MIL-C-85049 CLAMP. FOR SHIPBOARD JACKETED CABLE USE MS3408.
- (b) MS3108E CONNECTORS REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING AN3108E CONNECTORS.

EXAMPLE OF PART NUMBER:



DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ± 0.16 .
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