

REV.
A

SAE AS31021

RATIONALE

FEDERAL SUPPLY CLASS
5935

COMPLETELY REVISED FOR CLARIFICATION. UPDATED REFERENCES AND FORMATTED TO COMPLY WITH SAE GUIDELINES.

FOR GOVERNMENT PROCUREMENT, THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS50151.

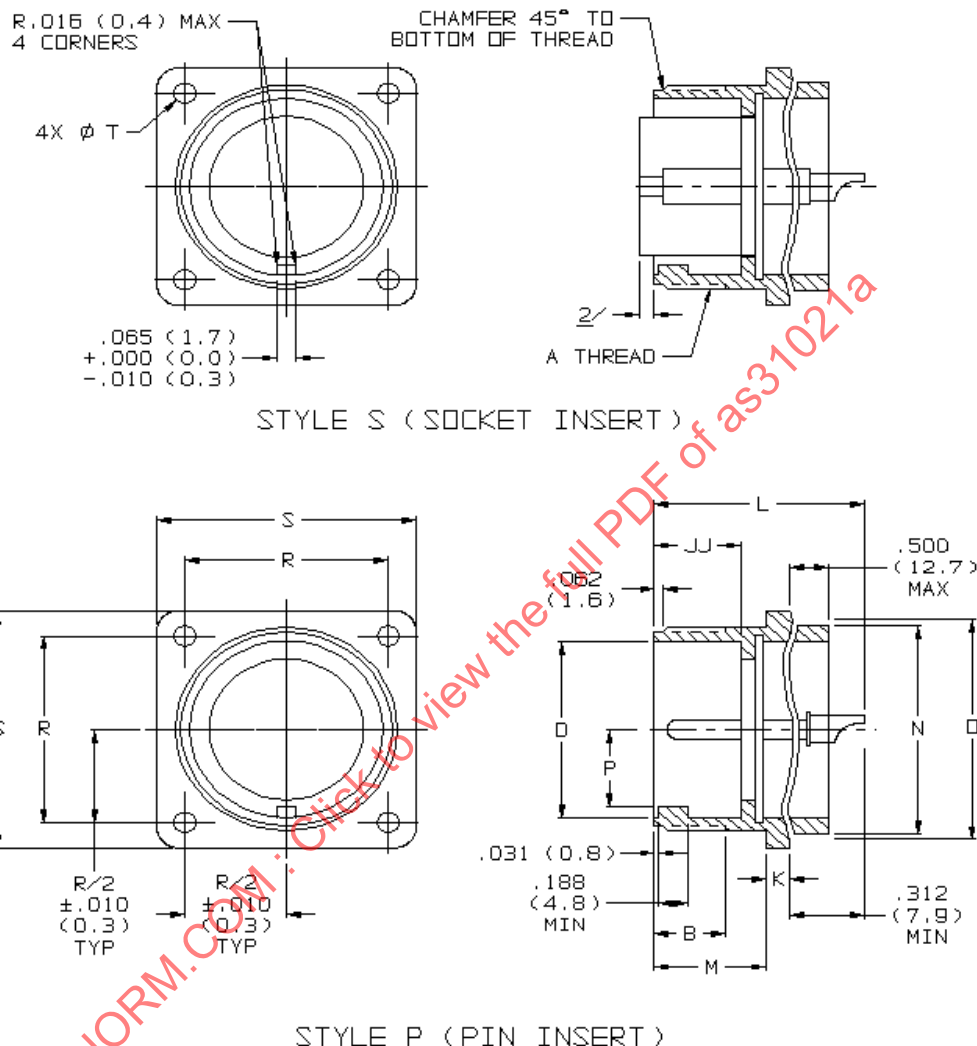
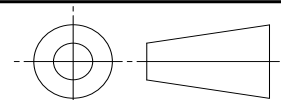


FIGURE 1 – CONFIGURATION AND DIMENSIONS

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THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: MIL-C-5015

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) CONNECTOR, RECEPTACLE, ELECTRIC,
BOX MOUNTING, SOLDER CONTACTS,
AN TYPE

SAE AS31021
SHEET 1 OF 6

REV.
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TABLE 1 – FIGURE 1 DIMENSIONS

SHELL SIZE	A COUPLING THREAD	B MIN USABLE THREAD	D +.015(0.4)/-.000 INSIDE DIA	I MAX INSERT DIA	JJ 1/ +.031(0.8)/-.000 INSERT LOCATION
8S	1/2 - 28	.375 (9.5)	.370 (9.4)	.250 (6.4)	.562 (14.3)
10S	5/8 - 24		.448 (11.4)	.320 (8.1)	
10SL					
12S	3/4 - 20	.625 (15.9)	.557 (14.1)	.448 (11.4)	.750 (19.1)
12					
14S	7/8 - 20	.375 (9.5)	.682 (17.3)	.525 (13.3)	.562 (14.3)
14		.625 (15.9)			.750 (19.1)
16S	1 - 20	.375 (9.5)	.807 (20.5)	.650 (16.5)	.562 (14.3)
16		.625 (15.9)			.750 (19.1)
18	1-1/8 - 18		.932 (23.7)	.770 (19.6)	
20	1-1/4 - 18		1.058 (26.9)	.925 (23.5)	
22	1-3/8 - 18		1.182 (30.0)	1.020 (25.9)	
24	1-1/2 - 18		1.307 (33.2)	1.145 (29.1)	
28	1-3/4 - 18		1.526 (38.8)	1.365 (34.7)	
32	2 - 18		1.776 (45.1)	1.615 (41.0)	
36	2-1/4 - 16		1.995 (50.7)	1.830 (46.5)	
40	2-1/2 - 16		2.245 (57.0)	2.045 (51.9)	
44	2-3/4 - 16		2.495 (63.4)	2.300 (58.4)	
48	3 - 16		2.745 (69.7)	2.550 (64.8)	

SHELL SIZE	K THICKNESS MOUNTING FLANGE			L MAX OVERALL LENGTH	
	MAX	MIN	MIN	MAX OVERALL LENGTH	
	CLASS A & C		CLASS K	CLASS A & C	CLASS K
8S	.156 (4.0)	.062 (1.6)	.062 (1.6)	1.191 (30.3)	1.375 (34.9)
10S					1.438 (36.5)
10SL					
12S				1.713 (43.5)	1.812 (46.0)
12				1.191 (30.3)	1.438 (36.5)
14S				1.713 (43.5)	1.938 (49.2)
14				1.191 (30.3)	1.438 (36.5)
16S	.203 (5.2)	.094 (2.4)	.078 (2.0)	1.750 (44.5)	2.062 (52.4)
16				1.938 (49.2)	2.250 (57.2)
18					
20					
22					
24					
28					
32	.359 (9.1)	.125 (3.2)	.125 (3.2)	2.188 (55.6)	
36					
40					
44					
48					

TABLE 1 – FIGURE 1 DIMENSIONS (CONT'D)

SHELL SIZE	M +.031 (0.8)/-.000 MTG FLANGE LOCATION	N 3/ +.000/- .188 (4.8) OUTSIDE DIA	O REF MOUNTING HOLE	P +.015 (0.4)/-.000 KEY HEIGHT	R ±.005 (0.1) CC - CL MTG HOLE	
8S	.562 (14.3)	.532 (13.5)	.562 (14.3)	.130 (3.3)	.594 (15.1)	
10S		.656 (16.7)	.688 (17.5)	.165 (4.2)	.719 (18.3)	
10SL		.782 (19.9)	.812 (20.6)			
12S					.224 (5.7)	.812 (20.6)
12	.750 (19.1)	.906 (23.0)	.938 (23.8)	.263 (6.7)	.906 (23.0)	
14S	.562 (14.3)					
14	.750 (19.1)					
16S	.562 (14.3)					
16	.750 (19.1)	1.032 (26.2)	1.062 (27.0)	.325 (8.3)	.969 (24.6)	
18		1.156 (29.4)	1.188 (30.2)	.385 (9.8)	1.062 (27.0)	
20		1.282 (32.6)	1.312 (33.3)	.463 (11.8)	1.156 (29.4)	
22		1.406 (35.7)	1.438 (36.5)	.510 (13.0)	1.250 (31.8)	
24	.812 (20.6)	1.532 (38.9)	1.562 (39.7)	.573 (14.6)	1.375 (34.9)	
28		1.782 (45.3)	1.812 (46.0)	.683 (17.3)	1.562 (39.7)	
32		.875 (22.2)	2.032 (51.6)	2.062 (52.4)	.808 (20.5)	1.750 (44.5)
36			2.282 (58.0)	2.312 (58.7)	.915 (23.2)	1.938 (49.2)
40	2.532 (64.3)		2.562 (65.1)	1.023 (26.0)	2.188 (55.6)	
44	2.782 (70.7)		2.812 (71.4)	1.150 (29.2)	2.375 (60.3)	
48		3.032 (77.0)	3.062 (77.8)	1.275 (32.4)	2.625 (66.7)	

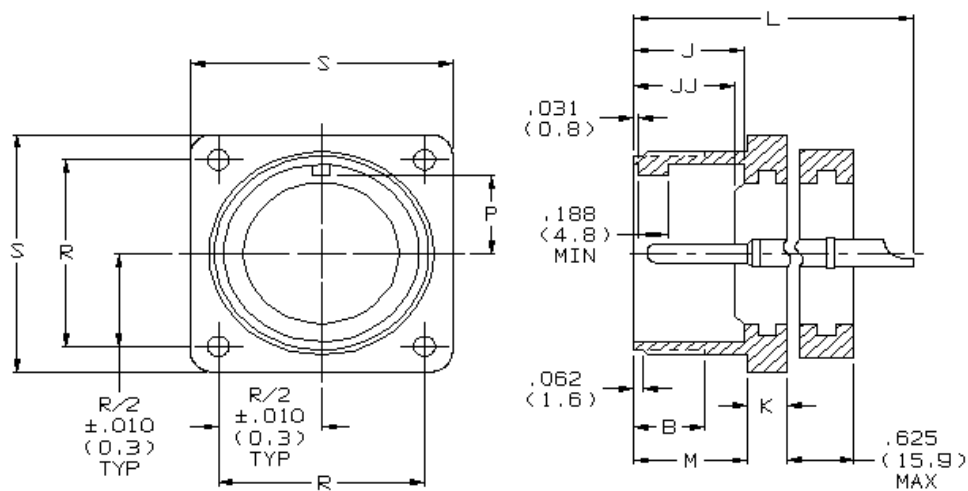
SHELL SIZE	S ±.031 (0.8) LENGTH SIDE	T +.010 (0.3)/-.005 (0.1) MOUNTING BOLT HOLE	
		CLASS A & C	CLASS K
8S	.875 (22.2)	.120 (3.0)	.150 (3.8)
10S	1.000 (25.4)		
10SL			
12S	1.094 (27.8)		
12			
14S	1.188 (30.2)		
14			
16S	1.281 (32.5)		
16			
18	1.375 (34.9)		.177 (4.5)
20	1.500 (38.1)		
22	1.625 (41.3)		
24	1.750 (44.5)		
28	2.000 (50.8)		
32	2.250 (57.2)	.147 (3.7)	
36	2.500 (63.5)		
40	2.750 (69.9)	.173 (4.4)	.208 (5.3)
44	3.000 (76.2)		
48	3.250 (82.6)		

1/ WHERE RESILIENT INSERTS ARE USED, JJ MAY BE .109 (2.8) LESS THAN INDICATED.

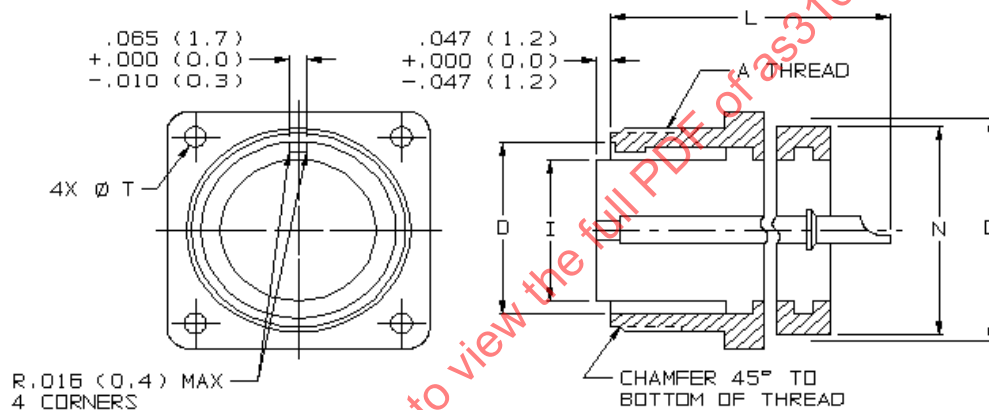
2/ SOCKET INSERT OF HARD MATERIAL SHALL EXTEND .016 (0.4) BEYOND OR .032 (0.8) MAXIMUM BELOW SHELL.
 SOCKET INSERT OF RESILIENT MATERIAL SHALL EXTEND .047 (1.2) +.000/- .047 (+0.00/-1.19) BEYOND SHELL AS SHOWN.
 SOCKET INSERT FOR CLASS K SHALL EXTEND .016 (0.4) BEYOND OR .032 (0.8) MAXIMUM BELOW SHELL.

3/ FOR SHELL SIZE 36 THRU 48 N TOLERANCE IS +.000/- .250 (6.4).

4/ NOT AVAILABLE FOR CLASS 'K'.



STYLE P (PIN INSERT)



STYLE S (SOCKET INSERT)

CLASS E & CLASS R
ENVIRONMENT RESISTANT

FIGURE 2 – CONFIGURATION AND DIMENSIONS