

NOTICE

AS31021

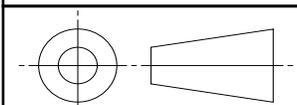
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THIRD ANGLE PROJECTION



ISSUED 2004-06

CUSTODIAN: SAE AE-8/AE-8C1

PROCUREMENT SPECIFICATION: MIL-C-5015



**AEROSPACE STANDARD**

CONNECTOR, RECEPTACLE, ELECTRIC,  
BOX MOUNTING, SOLDER CONTACTS,  
AN TYPE

**AS31021**  
SHEET 1 OF 9

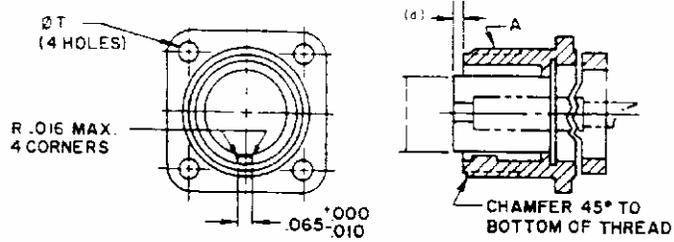
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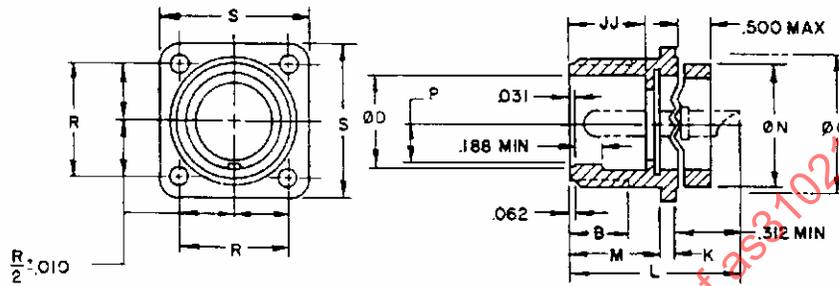
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STYLE S (SOCKET INSERT)



CLASS A-SOLID SHELL  
CLASS C-PRESSURIZED

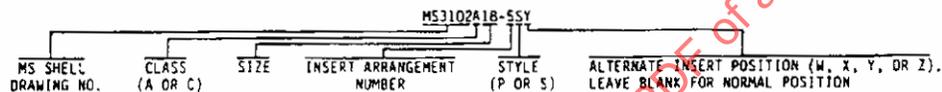
STYLE P (PIN INSERT)

SIZE	A COUPLING THREAD	B MIN USABLE THREAD	D -.015 MAX -.000 MIN INSIDE	Ø I MAX INSERT	(c) JJ +.031 -.000 INSERT LOCATION	K THICKNESS MOUNTING FLANGE	L MAX OVERALL LENGTH	M +.031/.000 MOUNTING FLANGE LOCATION	Ø P H +.000 -.000 MOUNTING HOLE Ø OUTSIDE	Ø O (ref) +.015 -.000 MOUNTING HOLE HEIGHT	R +.005 CL MOUNTING HOLE	S +.031 LENGTH SIDE	Ø T +.010/.005 MOUNTING SOLT HOLE	FOR INSERT ARRANGEMENT SEE DRAWING	
BS	1/2-28		.370	.250					.532	.562	.130	.594	.875		
10S	5/8-24	.375	.448	.320	.562		1.191	.562	.656	.686	.165	.715	1.000		
10SL															
12S	3/4-20	.625	.557	.448	.750	.156	.062	.750	.782	.812	.224	.812	1.094		
12															
14S	7/8-20	.375	.682	.525	.562		.750	.750	.906	.938	.263	.906	1.188	.120	
14															
16S	1-20	.375	.807	.650	.562		1.191	.562	1.032	1.062	.325	.969	1.281		
16															
18	1-1/8-18		.932	.770				.750	1.156	1.188	.385	1.062	1.375	NIL-500-165	
20	1-1/4-18		1.058	.925				.750	1.282	1.312	.463	1.156	1.500		
22	1-3/8-18	.625	1.182	1.020	.750	.203	.094	1.438	1.406	1.438	.510	1.250	1.625		
24	1-1/2-18		1.309	1.145					1.532	1.562	.573	1.375	1.750		
28	1-3/4-18		1.526	1.365				.812	1.782	1.812	.683	1.562	2.000		.147
32	2-18		1.776	1.615					2.032	2.062	.808	1.750	2.250		
36	2-1/4-16		1.995	1.830					2.282	2.312	.915	1.938	2.500		
40	2-1/2-16		2.245	2.045					2.532	2.562	1.023	2.188	2.750		.173
44	2-3/4-16		2.495	2.300	.359	.125		.875	2.782	2.812	1.150	2.375	3.000		
48	3-16		2.745	2.550					3.032	3.062	1.275	2.625	3.250		

## NOTES:

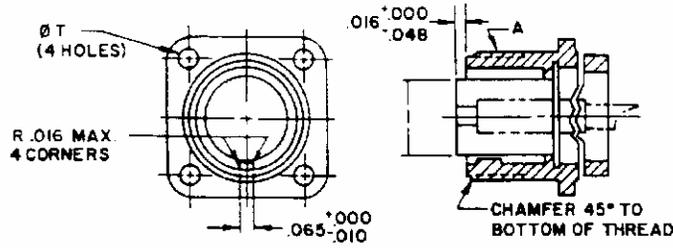
- (a) SIZES 85 THRU 40 OF CLASSES A AND C ARE CANCELLED AFTER 1 JAN 1991. FOR REPLACEMENT PURPOSES USE MS3102R. MANUFACTURERS MAY CONTINUE TO SUPPLY THESE SIZES OF CLASSES A AND C UNTIL 1 JAN 1992 OR EXHAUST THEIR INVENTORIES, WHICHEVER COMES FIRST. FOR NEW DESIGN USE MS3452W. FOR SHIPBOARD JACKETED CABLES USE MS3402.
- (b) SIZES 44 AND 48 OF CLASSES A AND C ARE INACTIVE FOR NEW DESIGN.
- (c) WHERE RESILIENT INSERTS ARE USED, JJ MAY BE .109 LESS THAN THAT INDICATED.
- (d) SOCKET INSERT OF HARD MATERIAL SHALL EXTEND .016 BEYOND OR .032 MAXIMUM BELOW SHELL. SOCKET INSERT OF RESILIENT MATERIAL SHALL EXTEND .047  $\pm$ .000  $\pm$ .047 BEYOND SHELL AS SHOWN.
- (e) FOR SHELL SIZES 36 AND 40, N TOLERANCE  $\pm$ .000,  $\pm$ .250.
- (f) CONNECTORS MS3102A (OR C) REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING AN3102A (OR C) CONNECTORS.

## EXAMPLE OF PART NUMBER:

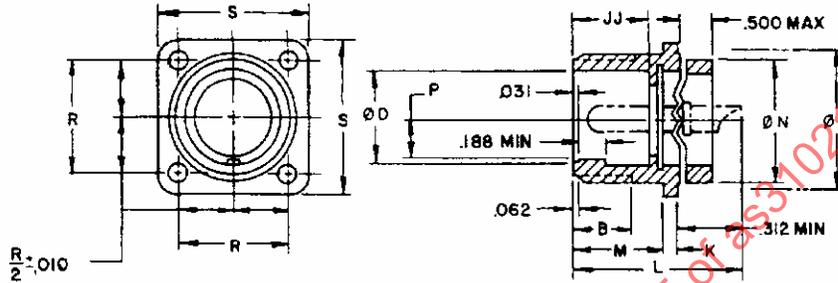


DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS  $\pm$ .016.  
 THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.  
 REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

CERTAIN PROVISIONS OF THIS SPECIFICATION SHEET ARE THE SUBJECT OF INTERNATIONAL STANDARDIZATION AGREEMENTS ASCC 12/14 AND 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.



STYLE S (SOCKET INSERT)



STYLE P (PIN INSERT)

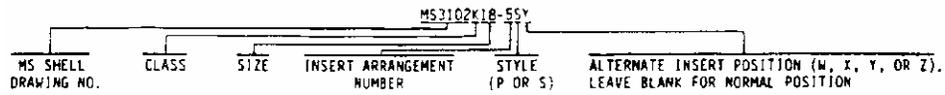
CLASS K - FIREWALL

SIZE	A COUPLING THREAD	B M/N J-SHIELD THREAD	D Ø INSIDE	Ø1 MAX INSERT	JJ Ø INSERT LOCATION	R MIP THICKNESS MOUNTING FLANGE	L Ø OVERALL LENGTH	R Ø FLANGE LOCATION	Ø1/2 Ø OUTSIDE	Ø D (REF) MOUNTING HOLE	P Ø SET WEIGHT	R Ø CL-CL MOUNTING HOLES	S Ø LENGTH SIDE	Ø T Ø MOUNTING BOLT HOLE	FLW INSERT ARRANGEMENT SEE
85	1/2-28		.370	.250			1.325		.532	.562	.130	.594	.875		
105	5/8-14	.375	.448	.320	.562		1.438	.562	.656	.688	.165	.718	1.000		
105A															
125	3/4-20		.551	.448					.782	.812	.224	.812	1.094		
12	3/4-20	.625		.448	.750	.062	1.812	.750						.150	
145	7/8-20	.375	.682	.525	.562		1.438	.562	.906	.938	.263	.906	1.188		MIL-STD-1831
14	7/8-20	.625		.525	.562		1.538	.750							
165		.375	.801	.650	.562		1.438	.562	1.032	1.062	.325	.969	1.281		
16	1-20						2.062								
18	1-1/8-18		.962	.770				.750	1.156	1.188	.385	1.062	1.375		
20	1-1/4-18		1.056	.925					1.282	1.312	.463	1.156	1.500		
22	1-3/8-18	.625	1.182	1.020	.750				1.406	1.438	.510	1.250	1.625	.177	
24	1-1/2-18		1.307	1.145		.078			1.532	1.562	.573	1.375	1.750		
28	2-3/8-18		1.528	1.365			1.740	.812	1.782	1.812	.643	1.562	2.000		
32	2-1/2-18		1.776	1.615				.875	2.032	2.062	.888	1.750	2.250		
36	2-7/8-16		1.995	1.830		.125			2.282	2.312	.915	1.938	2.500	.109	
40	2-1/2-16		2.245	2.085					2.532	2.562	1.023	2.188	2.750		

## NOTES:

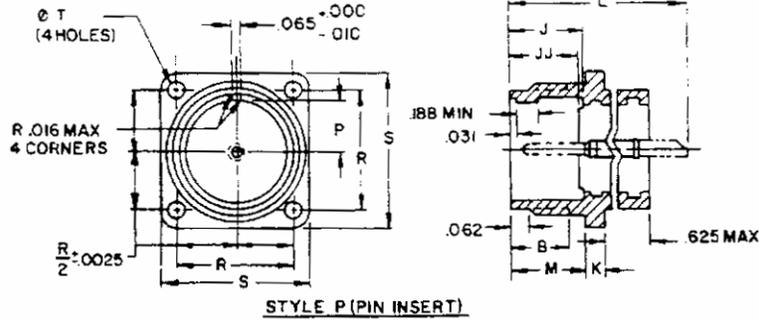
- (a) CLASS K IS INACTIVE FOR NEW DESIGN AFTER 1 JAN 1991. FOR NEW DESIGN USE MS3452K. FOR SHIPBOARD JACKETED CABLE USE MS3402.
- (b) CONNECTORS MS3102K REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING AN3102K CONNECTORS.

EXAMPLE OF PART NUMBER:

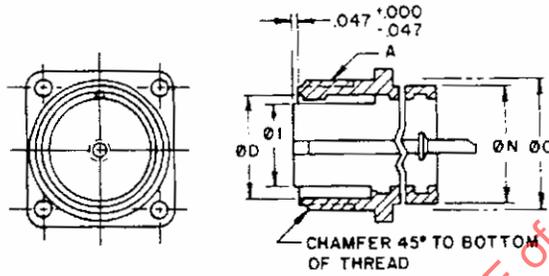


DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS  $\pm 0.016$ .  
 THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.  
 REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

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STYLE P (PIN INSERT)



STYLE S (SOCKET INSERT)

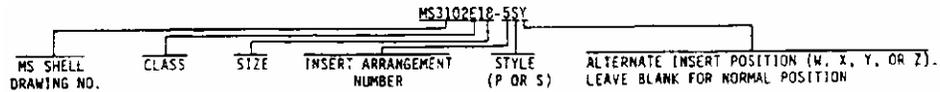
CLASS E - ENVIRONMENT RESISTANT

SIZE	A COUPLING THREAD	B MIN USABLE THREAD	D +.015 -.000 INSIDE	#1 MAX INSERT	J +.031 -.000 INT SHELL	J2 +.031 INSERT LOCATION	E THICKNESS MOUNTING FLANGE MAX MIN	L MAX OVERALL LENGTH	M +.031/-0.000 MOUNTING FLANGE LOCATION	1.8 +.000 Ø OUTSIDE	ØD (+/-) MOUNTING HOLE	P +.015 -.000 KEY HEIGHT	R +.005 CL-CL MOUNTING HOLE	S +.033 LENGTH SIDE	#T +.010/ -.005 MOUNTING BOLT HOLE	FIN. INSERT ARRANGEMENT SEE
85	1/2-28		.370	.250						.532	.562	.130	.594	.875		
105	5/8-24	.375	.448	.320	.562	.484		1.188	.562	.656	.688	.165	.714	1.000		
105L																
125	3/4-20		.557	.448						.782	.812			1.094		
12		.625			.750	.672	.156	.078	1.625	.750						
145	7/8-20	.375	.682	.525	.562	.484		1.188	.562	.906	.938	.263	.906	1.188	.120	MIL-STD-165
14		.625			.750	.672		1.625	.750							
165	1-20	.375	.807	.650	.562	.484		1.188	.562	1.032	1.062	.325	.969	1.281		
16								1.625								
18	1-1/8-18		.932	.770					.750	1.156	1.188	.385	1.062	1.375		
20	1-1/4-18		1.058	.925						1.282	1.312	.463	1.156	1.500		
22	1-3/8-18		1.182	1.070			.203	.094		1.406	1.438	.510	1.250	1.625		
24	1-1/2-18	.625	1.307	1.145	.750	.672		1.938	.812	1.532	1.562	.573	1.375	1.750	.147	
28	1-3/4-18		1.526	1.365						1.782	1.812	.683	1.562	2.000		
32	2-18		1.776	1.615						2.032	2.062	.808	1.750	2.250		
36	2-1/4-16		1.995	1.830			.359	.125	.875	2.282	2.312	.915	1.938	2.500	.173	
40	2-1/2-16		2.245	2.047						2.532	2.562	1.023	2.188	2.750		

## NOTES:

- (a) CLASS E IS CANCELLED AFTER 1 JAN 1991. FOR REPLACEMENT PURPOSES USE MS3102R. MANUFACTURERS MAY CONTINUE TO SUPPLY CLASS E UNTIL 1 JAN 1992 OR EXHAUST THEIR INVENTORIES, WHICHEVER COMES FIRST. FOR NEW DESIGN USE MS3452W. FOR SHIPBOARD JACKETED CABLES USE MS3402.
- (b) FOR SHELL SIZE 36 AND 40, N TOLERANCE IS  $+0.000, -0.250$ .
- (c) CONNECTORS MS3102E REPLACE AND ARE INTERCHANGEABLE WITH CORRESPONDING AN3102E CONNECTORS.

## EXAMPLE OF PART NUMBER:



DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS  $\pm 0.16$ . THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.