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REV. B
AS39029/21

FEDERAL SUPPLY CLASS
5999

RATIONALE

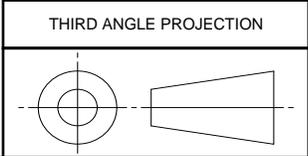
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CUSTODIAN: AE-8/AE-8C1		PROCUREMENT SPECIFICATION: AS39029	
	AEROSPACE STANDARD		AS39029/21
	CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, SHIELDED (FOR MIL-C-81511 SERIES 4 CONNECTORS)		

ISSUED 2000-06 REVISED 2007-07 STABILIZED 2013-12

TABLE 1 - CONTACT DIMENSIONS (1/)

BIN code	B MIN	S	L (REF)	T MIN	AA	BB MIN	CC	DD MAX	EE	TT MIN	SHIELD CRIMP SLEEVES									
											SLEEVES REQUIRED	SLEEVE A		SLEEVE B						
												HH MAX	JJ MIN	KK MAX	LL MIN	MM MAX				
187	.034	.396	.664 (16.87)	.240	.094	.081	.108 (2.74)	.108	.0750	.215	A & B	.0535	.0455	.080	.072	.080				
		.392				.091					.106 (2.69)	.0725	B	---	---	.080	.072	.080		
188	.022	.386	.654 (16.61)	.225	.153	.129	.1695 (4.31)	.169	.1210	.200	NONE	---	---	---	---	---				
		.382				.150					.1675 (4.25)	.1175	B	---	---	.128	.109	.128		
189	.034	.386	.654 (16.61)	.225	.153	.129	.1695 (4.31)	.139	.1210	.200	B	---	---	.128	.113	.128				
											.382	.150	.1675 (4.25)	.1175	A	.103	.081	---	---	---
															B	---	---	.128	.118	.128
															A & B	.099	.091	.128	.118	.128

NOTE 1/ INNER CONTACT DIMENSIONS ARE CONTROLLED BY PERFORMANCE ONLY (SEE TABLE 3).

TABLE 2 - MARKING AND DESIGN CHARACTERISTICS

BIN code	Color bands			Contact cavity size	Cables accommodated ^{1/}	Sleeves required	Type	Class
	1st	2nd	3rd					
187	Brown	Gray	Violet	16	M81044/18-22 SHIELDED GRUMMAN GC18K1-22	A & B	D	B
					M27500-22RC1S6 REVERE WH95623 2/ GRUMMAN GC875FW22-2	B		
188	Brown	Gray	Gray	12	RG-180B/U 3/ MICRO DOT 293-3922 GRUMMAN GC875GA1	None		
					RAYCHEM 9530D5117 GRUMMAN GC875GC1	B		
189	Brown	Gray	White	12	M81044/18-22 SHIELDED GRUMMAN GC18K1-22	B		
					M27500-22RC1S6 REVERE WH95623 2/ GRUMMAN GC875FW-22-2	A		
					MICRO DOT 250-4070 GRUMMAN GC875FY2	B		
					RAYCHEM 5022E5111 GRUMMAN GC875GB1	A & B		

1/ OR EQUIVALENT (M81044/18-22 IS CANCELED WITHOUT REPLACEMENT).

2/ REVERE WH95623 IS A TWO CONDUCTOR CABLE: ONE SIZE 22 SHIELDED CONDUCTOR CONFORMING TO M27500-22RC1S6.

3/ RG-108B/U MAY BE USED WHEN IMPEDANCE MATCHING IS NOT REQUIRED.

TABLE 3 - TOOL REQUIREMENTS

BIN CODE	INNER CONTACT 1/			SHIELD SLEEVE			
	BASIC CRIMPING TOOL	POSITIONER	POSITIONER SETTING	BASIC CRIMPING TOOL	POSITIONER	POSITIONER SETTING	SLEEVE TYPE
187	M22520/2-01	M22520/2-28	4	M22520/20-01	M22520/20-02	3	A & B
						4	C
188	M22520/2-01	M22520/2-29	1	M22520/22-01	M22520/22-02	6	NONE
						3	B
189	M22520/2-01	M22520/2-29	4	M22520/22-01	M22520/22-02	4	B
						5	A
						6	B
						5	A & B

NOTE 1/ INNER CONTACT DIMENSIONS ARE CONTROLLED BY PERFORMANCE ONLY. INNER CONTACT TOOLS SHALL BE AS SPECIFIED.

TABLE 3 - TOOL REQUIREMENTS (CONTINUED)

BIN CODE	OUTER CONTACT			INSTALLING TOOL	REMOVAL TOOL	
	BASIC CRIMPING TOOL	POSITIONER	POSITIONER SETTING		WIRED CONTACT	UNWIRED CONTACT
187	M22520/19-01	M22520/19-03?	3	M81969/16-02	M81969/16-02	M81969/30-03
			4			
188	M22520/21-01	M22520/21-03?	5	M81969/16-03	M81969/16-03	M81969/30-04
			3			
189	M22520/21-01	M22520/21-03?	4	M81969/16-03	M81969/16-03	M81969/30-04
			6			
			5			

TABLE 4 - PART NUMBERS

AS39029 PART NUMBER	BIN CODE	SUPERSEDES PART NUMBER(S)
M39029/21-187	187	M39029/21-001
M39029/21-188	188	M39029/21-002
M39029/21-189	189	M39029/21-003

TABLE 5 - PERFORMANCE REQUIREMENTS

BIN CODE	TENSILE STRENGTH (LB) MIN		CONTACT ENGAGING AND SEPARATION FORCES (OUNCES)				MAXIMUM CONTACT RESISTANCE (MILLIVOLTS)	
			OUTER SOCKET CONTACT SEPARATION		ENGAGEMENT			
	INNER CONTACT	OUTER CONTACT	MIN	TEST PIN DIAMETER	MAX	TEST PIN DIAMETER	INNER CONTACT	OUTER CONTACT
187	2.7	15	2.0	.0690 +.0000 -.0001	20.0	.0710 +.0001 -.0000	8.0	4.0
188	4.5			3.0		.1140 +.0000 -.0001		
189	2.7							