FEDERAL SUPPLY CLASS
5935

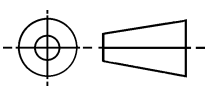
NOTICE

THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MIL-C-39029/10E, AMENDMENT 1 AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MIL-C-39029/10E, AMENDMENT 1. ANY PART NUMBERS ESTABLISHED BY THE ORIGINAL SPECIFICATION REMAIN UNCHANGED.

THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LISTS ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS (QPL'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS SAE TECHNICAL DOCUMENT.

THIRD ANGLE PROJECTION



ISSUED 2001-03

PREPARED BY SAE SUBCOMMITTEE AE-8C1

SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR, SOCKET, CRIMP REMOVABLE, THERMOCOUPLE, (FOR MIL-C-26482 SERIES 2, MIL-C-81703 SERIES 3, MIL-C-83723 SERIES 3, AND MIL-C-83733 CONNECTORS)

AS39029/10
SHEET 1 OF 5

Printed in the U.S.A.

TO PLACE A DOCUMENT ORDER: (724) 776-4970 FAX: (724) 776-0790 SAE WEB ADDRESS: http://www.sae.org

THE COMPLETE REQUIREMENTS FOR ACQUIRING THE CONTACTS DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF MIL-C-39029.

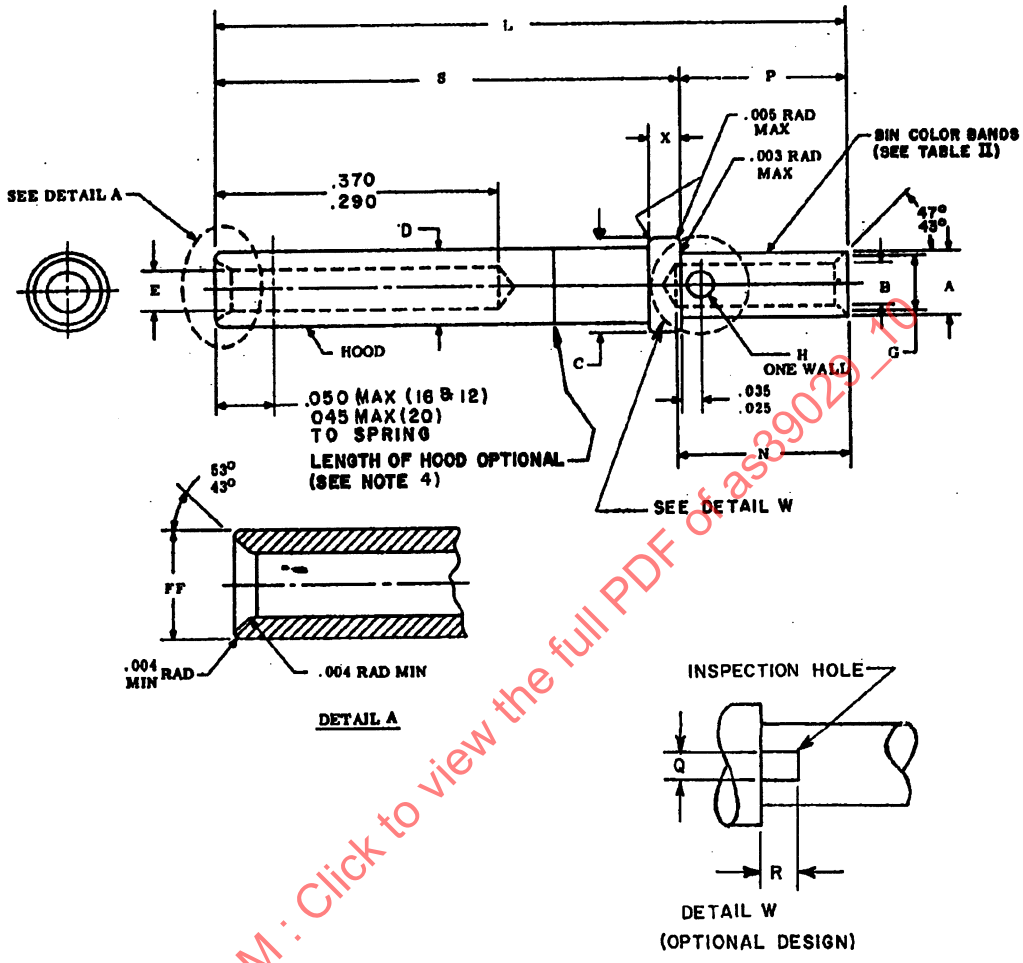


FIGURE 1. CONNECTOR CONTACT.

INCHES	MM	INCHES	MM
.026	.66	.089	2.26
.029	.69	.100	2.54
.032	.72	.101	2.57
.033	.75	.103	2.62
.036	.79	.110	2.79
.042	.83	.113	2.87
.044	.87	.130	3.30
.048	.92	.133	3.38
.050	.97	.157	3.99
.051	1.02	.160	4.06
.060	1.08	.171	4.34
.062	1.14	.186	4.72
.065	1.21	.246	6.25
.066	1.28	.250	6.35
.068	1.35	.257	6.53
.076	1.43	.284	7.21
.078	1.51	.500	12.70
.083	2.34	.656	16.66
.087	2.43	.759	19.28

TABLE I. Dimensions.

BIN Code	A DIA	B DIA	C DIA	D DIA	E DIA	G DIA	H DIA	L MAX (REF)	N	P	S	X	FF MIN DIA	Q	R
138 through 142	.078	.050	.103	.078	.044	.066	.032	.656	.186	.171	.485	.033	.060	.032	.051
	.076	.048	.100	.076	.042	.062	.026		.157	.160	.479	.029		.026	.026
519 through 523	.103	.068	.133	.113	.068	.089	.042	.759	.284	.257	.500	.048	.087	---	---
	.101	.066	.130	.110	.065	.083	.036		.250	.246	.494	.044			

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Dimensions shown apply after plating.
4. Maximum cap of .010 inch (.25 mm) between hood and body of the contact.

FIGURE 1. CONNECTOR CONTACT - CONTINUED.

TABLE II. DESIGN CHARACTERISTICS.

BIN code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st.	2nd.	3rd.				
138	Brown	Orange	Gray	20	20	C see table IV	B
139	Brown	Orange	White				
140	Brown	Yellow	Black				
141	Brown	Yellow	Brown				
142	Brown	Yellow	Red				
519	Green	Brown	White	16	16	C see table IV	B
520	Green	Red	Black				
521	Green	Red	Brown				
522	Green	Red	Red				
523	Green	Red	Orange				

TABLE III. TOOLS.

BIN code	Basic crimping tool	Positioner	Installing tool	Removal tool	
				Wired contact	Unwired contact
138	M22520/2-01 or M22520/1-01	M22520/2-02 Red or M22520/1-02	M81969/14-02 Red	M81969/14-02 White	M81969/30-05 Red
139					
140					
141					
142					
519	M22520/1-01 or M22520/7-01	M22520/1-02 Blue or M22520/7-03	M81969/14-03 Blue	M81969/14-03 White	M81969/30-06 Blue
520					
521					
522					
523					

TABLE IV. MATERIALS, PLATING, AND TENSILE STRENGTH.

BIN code	Materials	Plating	Tensile strength			
			Wire size	Axial load	Wire size	Axial load
138	Copper	Gold Flash	24	6 lbs.	20	12 lbs.
139	Constantan	None				
140	Alumel	None				
141	Chromel	None				
142	Iron	Cadmium Plate				
519	Copper	Gold Flash	20	14 lbs.	16	45 lbs.
520	Constantan	None				
521	Alumel	None				
522	Chromel	None				
523	Iron	Cadmium Plate				