FEDERAL SUPPLY CLASS
5935

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

NOTICE

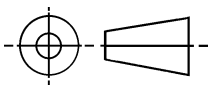
THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MIL-C-39029/48D AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MIL-C-39029/48D. 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.

ISSUED 2000-07 REAFFIRMED 2007-06

THIRD ANGLE PROJECTION



PREPARED BY SAE SUBCOMMITTEE AE-8C1

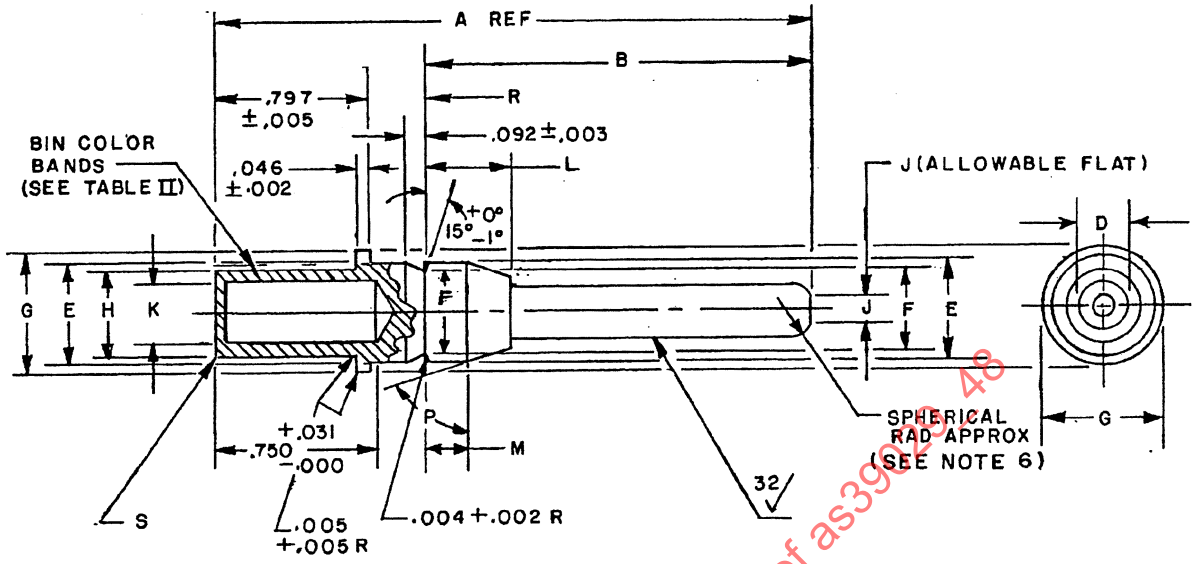
SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

CONTACTS, ELECTRICAL CONNECTOR,
PIN, CRIMP REMOVABLE
(FOR MIL-C-22992 CLASS L CONNECTORS)

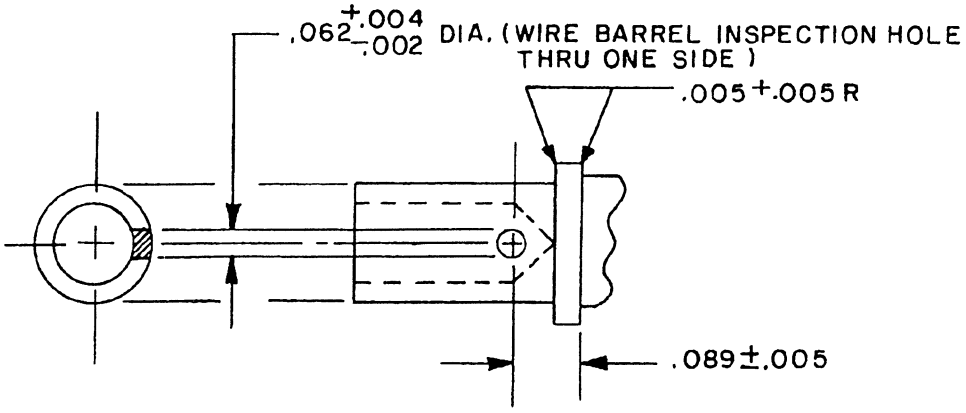
AS39029/48
SHEET 1 OF 8

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



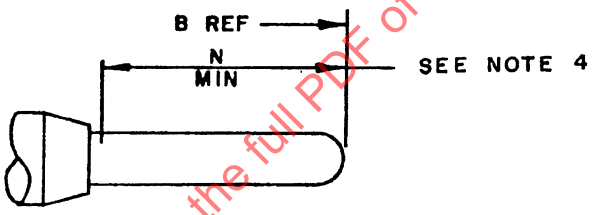
NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimensions shown apply after plating.
4. At indicated area, hardness to be as listed in table.
5. Unless otherwise specified, tolerances are ±.010 and ±2°.
6. Spherical end dimension shall conform to MIL-C-39029.
7. To properly crimp a wire of a smaller gauge than the contact wire barrel, the appropriate MS 3348 bushing must be used.
8. Manufacturer's trademark location optional.

FIGURE 1. DIMENSIONS AND CONFIGURATION.



VIEW A

WIRE BARREL (BORE BARREL CRIMP DEPTH)



BIN code	N MIN	ROCKWELL HARDNESS MIN
317	1.406	F80
318	1.531	
319	1.375	
320	1.406	
321	1.531	
322	1.375	
323	1.719	OPTIONAL
324	1.844	
325	1.719	
326	1.844	
237	1.719	
328	1.844	

INCHES	MM
1.375	34.93
1.406	35.71
1.531	38.89
1.719	43.66
1.844	46.84

FIGURE 1. DIMENSIONS AND CONFIGURATION - CONTINUED.

INCHES	MM
.002	0.05
.003	0.08
.004	0.10
.005	0.13
.006	0.15
.015	0.38
.016	0.41
.020	0.51
.031	0.79
.046	1.17
.062	1.57

INCHES	MM
.078	1.98
.089	2.26
.092	2.34
.100	2.54
.113	2.87
.178	4.52
.179	4.55
.188	4.78
.203	5.16
.225	5.72

INCHES	MM
.232	5.89
.234	5.94
.250	6.35
.251	6.38
.281	7.14
.286	7.26
.297	7.54
.308	7.82
.312	7.92
.313	7.95

INCHES	MM
.334	8.48
.342	8.69
.344	8.74
.357	9.07
.374	9.50
.375	9.52
.406	10.31
.417	10.59
.490	12.45
.500	12.70

INCHES	MM
.506	12.85
.516	13.11
.609	15.47
.641	16.28
.654	16.61
.688	17.48
.748	19.00
.750	19.05
.781	19.84
.797	20.24

INCHES	MM
1.738	44.15
1.746	44.35
1.856	47.14
2.097	53.26
2.215	56.26
2.786	70.76
2.856	72.54
2.904	73.76
3.207	81.46
3.325	84.46

TABLE I. Dimensions

BIN code	A REF	B ±.005	D DIA ±.001	E DIA +.002 -.001	F DIA ±.002	G DIA ±.002	H DIA ±.002	J DIA ±.010	K DIA ±.002	L ±.005	M ±.005	P	R ±.002	S MIN. 60° SLOPE
317	2.786	1.738	.178	.312	.286	.342	.312	.078	.234	.312	.188	75°	.251	.015
318	2.904	1.856	.178	.312	.286	.342	.312	.078	.234	.312	.188	75°	.251	.015
319	2.856	1.746	.178	.312	.286	.342	.312	.078	.234	.344	.297	60°	.313	.015
320	2.786	1.738	.225	.334	.308	.417	.374	1/	.281	.312	.188	75°	.251	.015
321	2.904	1.856	.225	.334	.308	.417	.374	1/	.281	.312	.188	75°	.251	.015
322	2.856	1.746	.225	.334	.308	.417	.374	1/	.281	.344	.297	60°	.313	.015
323	3.207	2.097	.357	.516	.490	.609	.506	1/	.406	.344	.297	60°	.313	.020
324	3.325	2.215	.357	.516	.490	.609	.506	1/	.406	.344	.297	60°	.313	.020
325	3.207	2.097	.406	.654	.629	.688	.609	1/	.500	.344	.297	60°	.313	.020
326	3.325	2.215	.406	.654	.629	.688	.609	1/	.500	.344	.297	60°	.313	.020
327	3.207	2.097	.500	.748	.723	.781	.750	1/	.641	.344	.297	60°	.313	.020
328	3.325	2.215	.500	.748	.723	.781	.750	1/	.641	.344	.297	60°	.313	.020

1/ Maximum allowable. Pin tip flat in accordance with MIL-C-39029.

FIGURE 1. DIMENSIONS AND CONFIGURATION - CONTINUED.

REQUIREMENTS:

Dimensions, design characteristics, and configuration: See figure 1 and tables I and II.

Wire barrel: Wire barrel ranges and size shall be a specified in table IV.

Tools: See table III.

Vibration: In accordance with method 2005 of MIL-STD-1344, test condition III. The following detail and exceptions shall apply.

a. Normal locking means only, no safety wire shall be used.

b. The cable or wire bundle shall be clamped to nonvibrating points at least 8 inches from the rear of the connectors. The clamping length may be selected or changed to avoid resonance of the cable or wire.

c. The system ground contacts of class L grounding connectors shall not be wired into the series monitoring circuit.

Shock: MIL-C-39029/48 contacts shall be tested in accordance with the drop test (class L) and high impact shock test as specified in MIL-C-22992, using a MIL-C-22992 qualified connector that has been approved for listing on the applicable qualified products list.

Mating contact: MIL-C-39029/49.

Material: Copper alloy SAE CA145; SAE CA147. Hard temper; CABRA 147 or equivalent.

Finish: Silver plate .0002 inch thick minimum in accordance with QQ-S-365. Use underplate of .00005 inch minimum nickel in accordance with QQ-N-290.

Concentricity: .004 TIR(RFS), machined surfaces 63 $\overline{V}$ unless otherwise specified.

Contacts may be soldered or crimped.

Qualification: Shall include the crimping of these contacts utilizing MS3448 bushings to accommodate smaller wire sizes.

QPL evaluating activity: Defense Electronics Supply Center (DESC-E), Dayton, Ohio 45444.

International interest: NEPR 57, class L only.

Military part number: See table V.

TABLE II. DESIGN CHARACTERISTICS.

Bin code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
317	Orange	Brown	Violet	6	6		
318	Orange	Brown	Gray	6N 1/	6		
319	Orange	Brown	White	6G 1/	6		
320	Orange	Red	Black	4	4		
321	Orange	Red	Brown	4N 1/	4		
322	Orange	Red	Red	4G 1/	4	A	A
323	Orange	Red	Orange	1/0	1		
324	Orange	Red	Yellow	1/0N 1/	1		
325	Orange	Red	Green	2/0	2/0		
326	Orange	Red	Blue	2/0N 1/	2/0		
327	Orange	Red	Violet	4/0	4/0		
328	Orange	Red	Gray	4/0N 1/	4/0		

1/ "N" designation indicates a neutral pin. "G" designation indicates a grounding pin.