

INCH-POUND

MIL C-39029/58E
 14 February 1995
 SUPERSEDING
 MIL C 39029/58D
 12 April 1984

MILITARY SPECIFICATION SHEET

CONTACTS ELECTRICAL CONNECTOR
 PIN CRIMP REMOVABLE (FOR MIL-C-24308 MIL-C-38999 SERIES I
 II III AND IV AND MIL-C-55302/69 AND MIL-C 83733 CONNECTORS)

This specification is approved for use by all Departments
 and Agencies of the Department of Defense

The requirements for acquiring the product described herein shall consist of this
 specification sheet and the issue of the following specification listed in that
 issue of the Department of Defense Index of Specifications and Standards (DODISS)
 specified in the solicitation MIL-C-39029

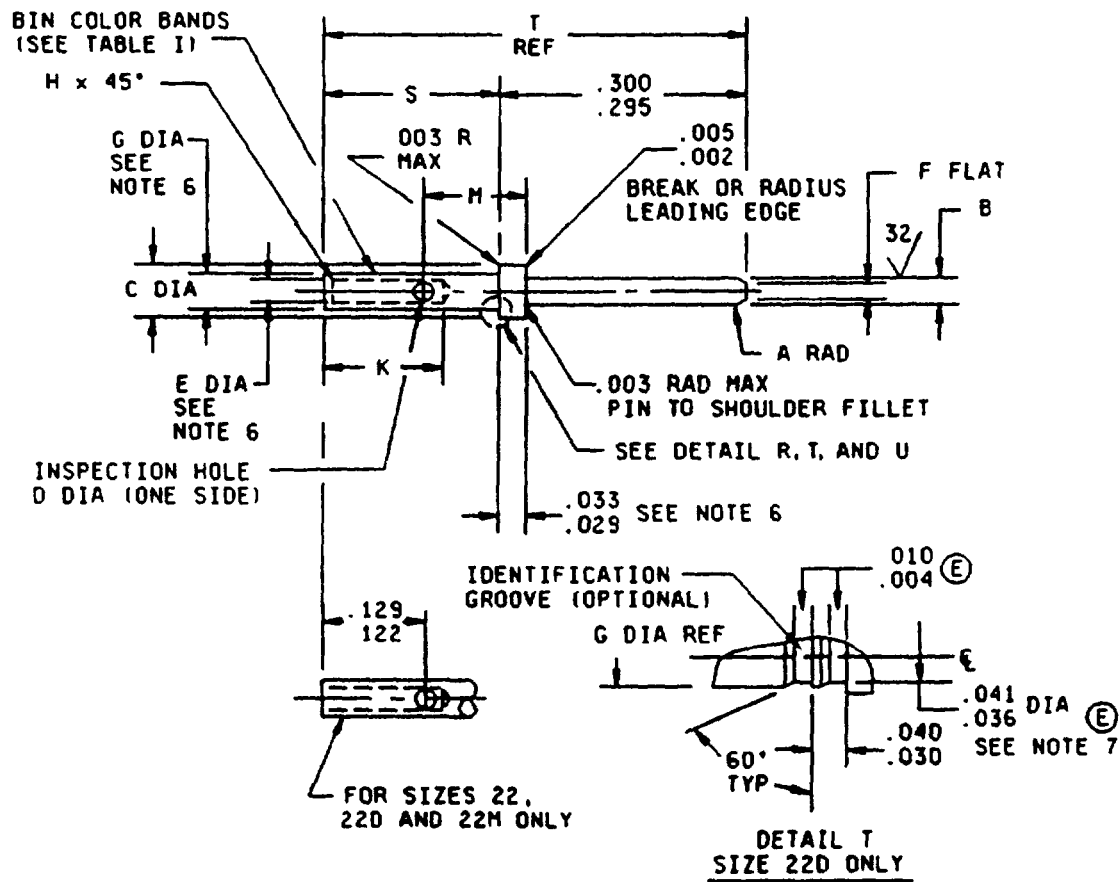
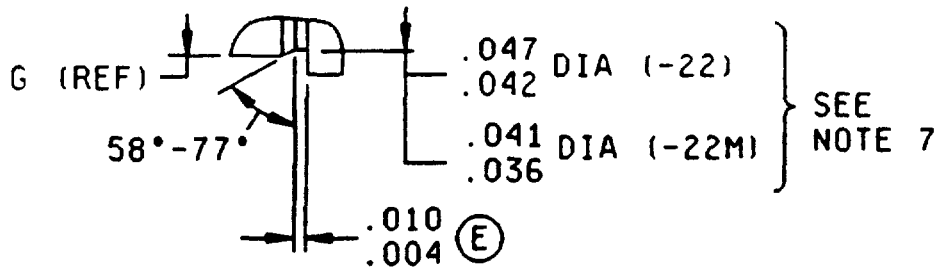


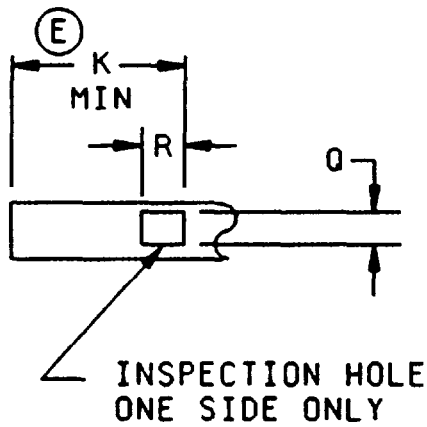
FIGURE 1 Connector contact

(E) denotes changes

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DETAIL R
SIZES 22, 22M ONLY



DETAIL W
(OPTIONAL DESIGN)

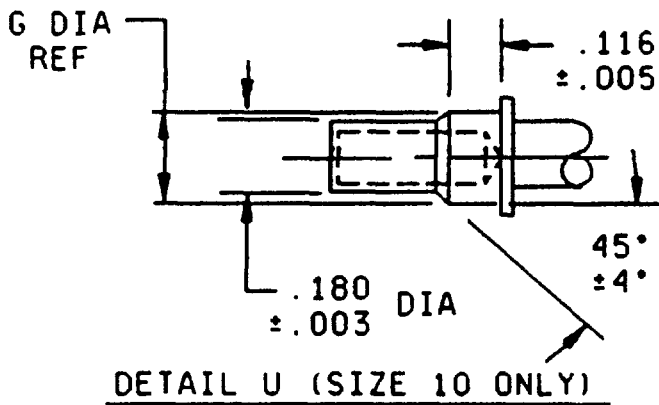


FIGURE 1 Connector contact - Continued

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E

E

BIN Code	A radius	B dia	C dia	D dia	E dia	F dia	G dia	H	r min	M	Q	R	S	T (REF)
360	020 (0 51) 010 (0 25)	0305 (0 774) 0295 (0 749)	062 (1 57) 060 (1 52)	022 (0 56) 018 (0 46)	0355 (0 902) 0335 (0 851)	011 (0 28) max	048 (1 23) 046 (1 67)	005 (0 13) 003 (0 08)	141	- - -	022 (0 56) 018 (0 46)	046 (1 17) 018 (0 46)	237 (6 02) 231 (5 87)	531 (13 49)
361 (note 4)	020 (0 51) 010 (0 25)	0305 (0 774) 0295 (0 749)	062 (1 57) 060 (1 52)	022 (0 56) 018 (0 46)	029 (0 66) 027 (0 69)	011 (0 28) max	046 (1 67) 044 (1 12)	005 (0 13) 003 (0 08)	141	-----	-----	-----	237 (6 02) 231 (5 87)	531 (13 49)
362 (note 4)	020 (0 51) 010 (0 25)	0305 (0 774) 0295 (0 749)	071 (1 80) 069 (1 75)	022 (0 56) 018 (0 46)	0375 (0 953) 0355 (0 902)	011 (0 28) max	052 (1 32) 050 (1 27)	005 (0 13) 003 (0 08)	141	-----	-----	-----	237 (6 02) 231 (5 87)	531 (13 49)
363	025 (0 64) 015 (0 38)	041 (1 04) 039 (0 99)	094 (2 39) 091 (2 31)	032 (0 81) 026 (0 66)	048 (1 22) 046 (1 17)	015 (0 38) max	070 (1 78) 068 (1 73)	010 (0 25) 005 (0 13)	209	078 (1 98) 072 (1 83)	032 (0 81) 026 (0 66)	063 (1 60) 026 (0 66)	237 (6 02) 231 (5 87)	531 (13 49)
364	025 (0 64) 020 (0 51)	0635 (1 613) 0616 (1 562)	130 (3 30) 127 (3 23)	042 (1 02) 036 (0 91)	068 (1 73) 066 (1 68)	030 (0 76) 011 (0 28)	103 (2 62) 101 (2 57)	010 (0 25) 005 (0 13)	209	088 (2 24) 082 (2 08)	042 (1 07) 030 (0 76)	073 (1 85) 036 (0 91)	237 (6 02) 231 (5 87)	531 (13 49)
365	025 (0 64) 020 (0 51)	095 (2 41) 093 (2 36)	182 (4 62) 179 (4 55)	042 (1 07) 036 (0 91)	102 (2 59) 098 (2 49)	062 (1 57) 043 (1 09)	151 (3 84) 148 (3 76)	016 (0 41) 005 (0 13)	209	088 (2 24) 082 (2 08)	042 (1 07) 030 (0 76)	073 (1 85) 036 (0 91)	237 (6 02) 231 (5 87)	531 (13 49)
528	025 (0 64) 020 (0 51)	126 (3 20) 124 (3 15)	242 (6 15) 238 (6 05)	052 (1 32) 040 (1 02)	140 (3 56) 134 (3 40)	094 (2 39) 074 (1 88)	213 (5 41) 207 (5 26)	016 (0 41) 005 (0 13)	355	115 (2 92) 108 (2 74)	NA	NA	405 (10 29)) 395 (10 03))	647 (16 43))

NOTES

- 1 Dimensions are in inches
- 2 Metric equivalents are given for information only
- 3 Metric equivalents are in parentheses for overall length and diameter only
- 4 Inactive for new design
- 5 Dimensions shown apply after plating
- 6 For BIN code 360 only diameters E and G are to be concentric within .003 (TIR) regardless of feature size (RFS) for all other contact sizes diameters E and G to be concentric within .001 (TIR) of maximum material condition (MMC)
- 7 Concentric to G dia within .003 TIR (RFS)

FIGURE 1 Connector contact (continued)

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REQUIREMENTS

Dimensions design characteristics and configuration See figure I and table I

Tools See table II

TABLE I Design characteristics

Bin code	Color bands			Mating end size	Wire barrel size	Type	Class
	1st	2nd	3rd				
360	Orange	Blue	Black	22	22D	A	B
361 $\frac{1}{2}$	Orange	Blue	Brown	22	22M	A	B
362 $\frac{1}{2}$	Orange	Blue	Red	22	22	A	B
363	Orange	Blue	Orange	20	20	A	B
364	Orange	Blue	Yellow	16	16	A	B
365	Orange	Blue	Green	12	12	A	B
528	Green	Red	Gray	10	10	A	B

 $\frac{1}{2}$ Inactive for new design

TABLE II Tools

BIN code	Basic crimping tool	Positioner	Installing tool	Removal tool
360	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02
361	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07	M81969/14-01 M81969/8-01	M81969/14-01 M81969/8-02
362	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07	M81969/8-03	M81969/8-04
363	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 Red M22520/2-10 M22520/7-08	M81969/14-02 M81969/8-05	M81969/14-02 M81969/8-06
364	M22520/1-01 M22520/7-01	M22520/1-04 Blue M22520/7-04	M81969/8-07 M81969/14-03	M81969/8-08 M81969/14-03
365	M22520/1-01	M22520/1-04 Yellow	M81969/14-04 M81969/8-09	M81969/14-04 M81969/8-10
528	M22520/XX $\frac{1}{2}$	M22520/XX $\frac{1}{2}$	M81969/8-XX $\frac{1}{2}$ M81969/14-05	M81969/8-YY $\frac{1}{2}$ M81969/14-05

 $\frac{1}{2}$ To be determined

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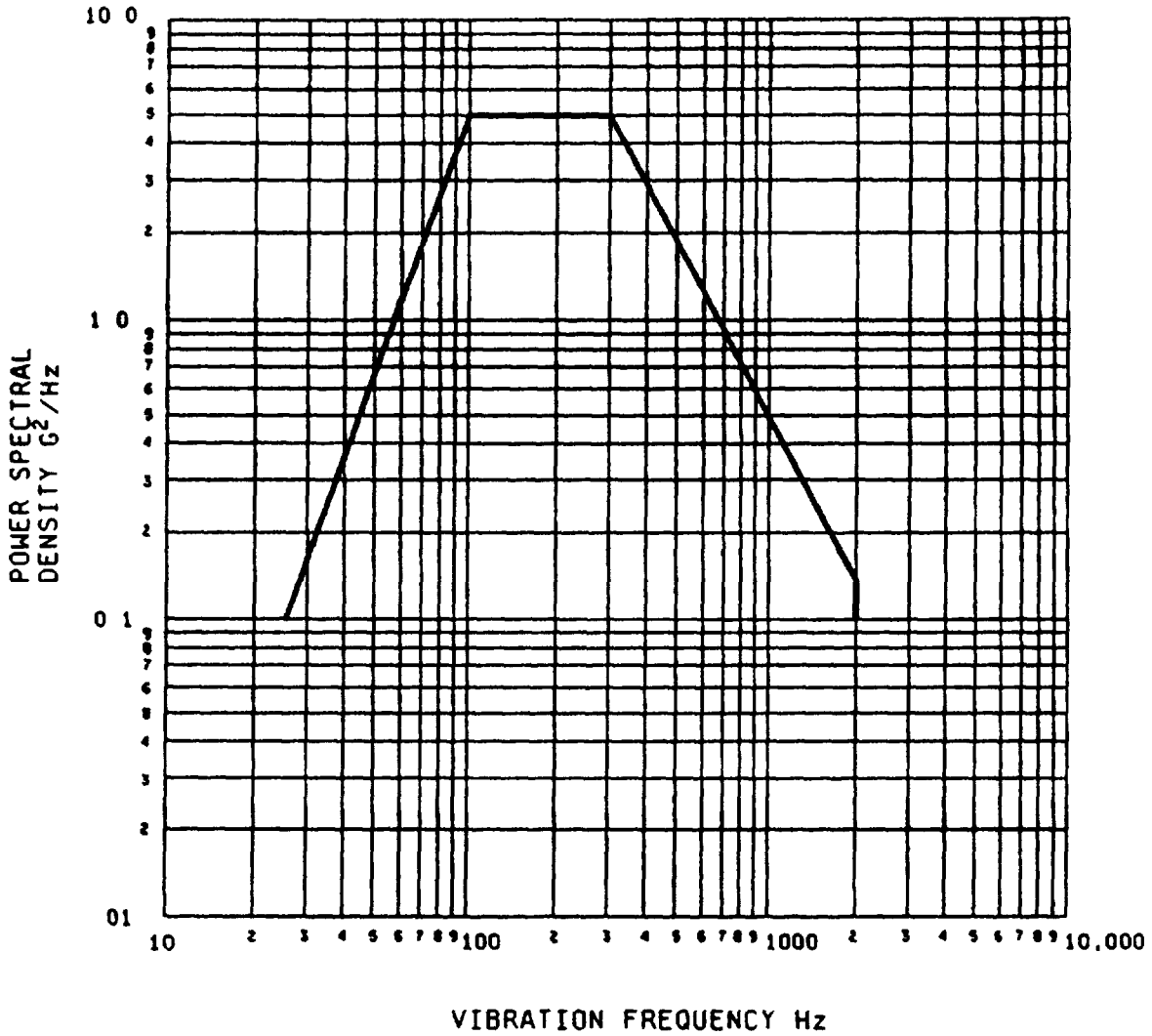


FIGURE 2 Vibration envelope

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Random vibration Connectors shall be subjected to the test specified in method 2005 of MIL STD 1344. The following details shall apply:

- a. Test condition V Using the vibration envelope shown on figure 2 (Derived from zone 2 outlined in Aerospace Information Report AIR 1557)
- b. Vibration to be conducted at standard test conditions
- c. Duration shall be 8 hours in the longitudinal direction and 8 hours in a perpendicular direction for a total of 16 hours

High-impact Shock Connectors shall be coupled together by normal coupling means. All contacts shall be wired in a series circuit with 100 milliamperes maximum current flow through the series circuit during high-impact shock. Connectors shall be monitored for any discontinuities. A detector capable of detecting all discontinuities in excess of 1 microsecond shall be used. Wired and mated connectors shall be subjected to the test specified in MIL-S-901, grade A with the following modifications and additions. Mounting fixture shall be in accordance with MIL-S-901 light weight. The cable or wire bundle shall be supported on a stationary frame in such a manner to provide a free flexing cable length between the frame and fixture of not less than 36 inches (914.4 mm).

Test condition A The plug shall be terminated with at least 80 percent of wired contacts. The wire bundle shall be provided with straight open frame strain relief accessory hardware.

Operating temperature range -65°C (-85°F) to 200°C (392°F)

Mating contact MIL-C 39029/57 and /56

Contacts shall comply with reliability assurance provisions of MIL STD-790 as specified in MIL-C 38999

QPL evaluating activity Defense Electronics Supply Center (DESC-E) Dayton OH 45444-5270

International interest NEPR 57

Military Part or Identifying Number (PIN) See table III

TABLE III Military PIN

BIN code	Military PIN	Supersedes PIN
360	M39029/58-360	MS27493-22D
361 1/ 2/ 3	M39029/58-361	MS27493-22M
362 1/ 2/ 3/	M39029/58-362	MS27493-22
363 2/	M39029/58-363	MS27493-20
364 2/ 3/	M39029/58-364	MS27493-16
365 2/ 3/	M39029/58-365	MS27493-12
528 2/ 3/	M39029/58-528	

1/ Inactive for new design

2/ Not for use with MIL-C-83733 or MIL-C-24308 connectors (For MIL-C-83733 usage contact sizes 20, 16, and 12 see MIL-C-39029/4 and 5)

3/ Not for use with MIL-C 55302 connectors

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CONCLUDING MATERIAL

Custodians

Army CR

Navy AS

Air Force - 85

① NASA NA

Review activities

Army AT MI

Navy - EC MC OS SH

Air Force - 15, 17 99

DLA - ES

Preparing activity

Air Force 85

Agent

DLA - ES

(Project 5935-3937)