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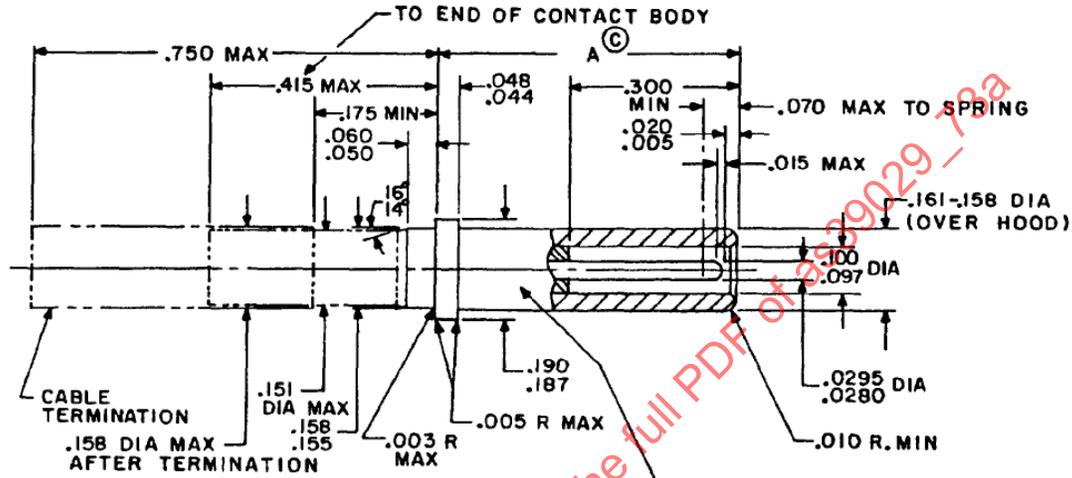
AS39029/73

RATIONALE

AS39029/73A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

NOTICE

THE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE LATEST ISSUE OF SAE AS39029.



BIN COLOR BANDS - SEE TABLE 1

FIGURE 1- CONNECTOR CONTACT

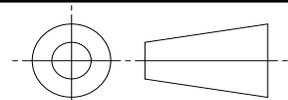
TABLE 1 - DIMENSIONS

BIN CODE	A
396, 397, 398	.500 (12.7)
	.492 (12.50)
555 1/	.715 (18.16)
	.705 (17.91)

1/ FOR USE WITH MIL-DTL-83527 CONNECTORS

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS39029/73A>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS39029



AEROSPACE STANDARD

(R) CONTACTS, ELECTRICAL CONNECTORS, SOCKET, SOLDER, REMOVABLE, SHIELDED, SIZE 12 (FOR MIL-DTL-83723 SERIES III, MIL-DTL-26482 SERIES 2, MIL-DTL-83733, AND MIL-DTL-83527 CONNECTORS)

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ISSUED 2000-07 REVISED 2009-06 REAFFIRMED 2014-08

TABLE 2 - DESIGN AND CHARACTERISTICS

BIN CODE	COLOR BAND			CABLE ACCOMMODATION (SEE FIGURE 2)				SHIELD PREPARATION TECHNIQUE	TEST CABLES	TYPE	CLASS
	1 ST	2 ND	3 RD	A 1/	B 2/	C 3/	D 4/				
396	ORANGE	WHITE	BLUE	.026 (.66) MAX .011 (.28) MIN	.105 (2.67) MAX .093 (2.36) MIN	.124 (3.15) MAX .112 (2.84) MIN	.145 (3.68) MAX .120 (3.05) MIN	STRAIGHT	M17/095- RG180	D	A
397	ORANGE	WHITE	VIOLET	.026 (.66) MAX .011 (.28) MIN	.081 (2.06) MAX .055 (1.40) MIN	.099 (2.51) MAX .077 (1.96) MIN	.140 (3.56) MAX .094 (2.39) MIN	STRAIGHT	M17/094- RG179 RAYCHEM 9530H1024- 9 5/		
				.026 (.66) MAX .011 (.28) MIN	.045 (1.14) MAX .030 (.76) MIN	.099 (2.51) MAX .077 (1.96) MIN FOLDBACK	.140 (3.56) MAX .094 (2.39) MIN AFTER BUILD-UP	FOLDBACK	M17/093- RG178		
398	ORANGE	WHITE	GRAY	24 AND 26 AWG TWISTED PAIR				N/A	TWISTED PAIR 24 AND 26 AWG PER MIL-DTL- 55021		
555	GREEN	GREEN	GREEN	.026 (.66) MAX .011 (.28) MIN	.081 (2.06) MAX .055 (1.40) MIN	.099 (2.51) MAX .077 (1.96) MIN	.140 (3.56) MAX .094 (2.39) MIN	STRAIGHT	M17/094- RG179		

- 1/ A. CONDUCTOR DIAMETER
- 2/ B. DIELECTRIC DIAMETER
- 3/ C. SHIELD DIAMETER
- 4/ D. JACKET DIAMETER
- 5/ OR EQUIVALENT

TABLE 3 - TOOLS

BIN CODE	STANDARD FIXTURE		REPAIR FIXTURE	HEATING TOOL	INSTALLING AND REMOVAL TOOL
	BASIC FIXTURE	ADAPTER			
396, 397, 398	AD-1319 RAYCHEM 1/	AT-1319-19 RAYCHEM 1/	AD-1494 RAYCHEM 1/	M83521/5-04 1/	M81969/14-04
555	AD-1319 RAYCHEM 1/	AT-1319-25 RAYCHEM 1/	AD-1569 RAYCHEM 1/	M83507/14-02 1/	M81969/14-04

1/ OR EQUIVALENT

TABLE 4 - PART NUMBERS

PART NUMBER	BIN CODE	SUPERSEDES
M39029/73-396	396	M39029/73-12A
M39029/73-397	397	M39029/73-12C
M39029/73-398	398	M39029/73-12B
M39029/73-555	555	NONE

	AEROSPACE STANDARD (R) CONTACTS, ELECTRICAL CONNECTORS, SOCKET, SOLDER, REMOVABLE, SHIELDED, SIZE 12 (FOR MIL-DTL- 83723 SERIES III, MIL-DTL-26482 SERIES 2, MIL-DTL-83733, AND MIL-DTL-83527 CONNECTORS)	AS39029/73 SHEET 2 OF 5	REV. A
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TABLE 5 - CONTACT ENGAGEMENT AND SEPARATION FORCES

TEST PIN DIAMETER (INCH)	MINIMUM SEPARATION FORCE (OUNCES)		MAXIMUM ENGAGEMENT FORCE (OUNCES)		MAXIMUM AVERAGE ENGAGEMENT FORCE
	INITIAL	AFTER CONDITIONING	INITIAL	AFTER CONDITIONING	
.0950 (2.41) +.0002 (.01) -.0000 (0.00)	N/A	N/A	30	36	N/A
.0930 (2.36) +.0000 (0.00) -.0002 (0.01)	3.0	2.5	N/A	N/A	N/A

TABLE 6 - CONTACT RESISTANCE

BIN CODE	CABLE ACCOMMODATED	TEST CURRENT (AMPS) 1/	MAXIMUM VOLTAGE DROP (MILLIVOLTS)					
			25° +3°, -0°C		25° +3°, -0°C 2/		125° +3°, -0°C	
			INNER	OUTER	INNER	OUTER	INNER	OUTER
396	M17/095-RG180	1	120	13	144	16	204	22
397	M17/093-RG178 M17/094-RG179	1	120	13	144	16	204	22
	9530H1024-9 3/ RAYCHEM	1	60	5	72	6	90	7.5
398	24 AWG TWISTED PAIR	3	57	49	68	59	97	83
	26 AWG TWISTED PAIR	2	63	51	76	61	107	87
555	M17/094-RG179	1	120	13	144	16	204	22

1/ AMMETER ACCURACY OF 2%

2/ AFTER CONDITIONING

3/ OR EQUIVALENT

TABLE 7 - CONDUCTOR RETENTION

BIN CODE	CABLES ACCOMMODATED	MINIMUM TENSILE LOAD (POUNDS) 1/	
		INNER CONTACT	OUTER CONTACT
396	M17/095-RG180	4.5	20.0
397	M17/093-RG178	5.2	6.5
	M17/094-RG179	5.2	16.0
	RAYCHEM 9530H1024-9 2/	5.5	19.5
398	24 AWG TWISTED PAIR	15.0	15.0
	26 AWG TWISTED PAIR	10.5	10.5
555	M17/094-RG179	5.2	16.0

1/ BREAKAGE OF CABLE OUTSIDE OF SOLDER JOINT SHALL BE CONSIDERED PASSING.

2/ OR EQUIVALENT

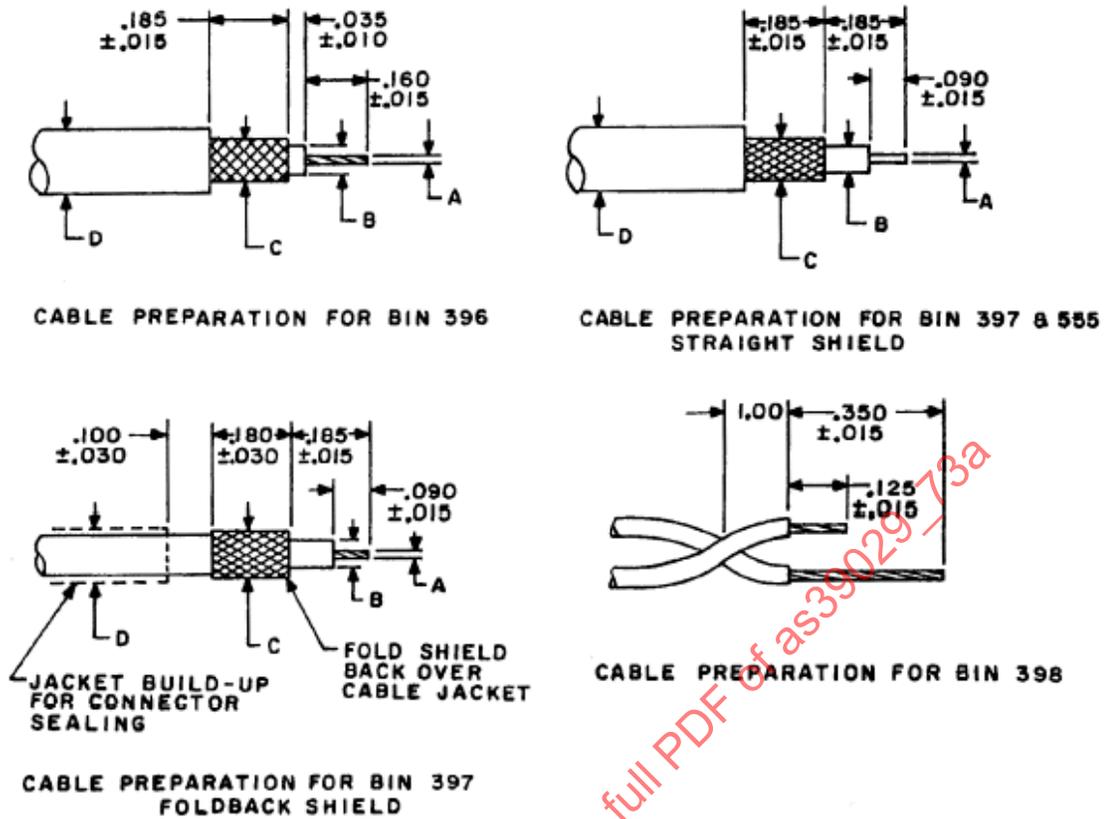


FIGURE 2 - CABLE PREPARATION

REQUIREMENTS:

- DESIGN AND CONSTRUCTION: CONTACTS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. DIMENSIONS ARE IN INCHES, METRIC EQUIVALENTS ARE GIVEN FOR GENERAL INFORMATION ONLY. DIMENSIONS SHOWN APPLY AFTER PLATING
- TOOLS: TOOLS REQUIRED FOR TERMINATING CONTACTS TO WIRE/CABLE AND THE INSTALLING/REMOVAL FROM THE CONNECTOR SHALL BE IN ACCORDANCE WITH TABLE 3.
- PART NUMBERS: CONTACT PART NUMBERS SHALL BE IN ACCORDANCE WITH TABLE 4. SUPERSEDING PART NUMBERS ARE AS SPECIFIED.
- MATERIALS: MATERIALS SHALL BE IN ACCORDANCE WITH AS39029. SOLDER TYPE: J-STD-006, SN60 OR SN63.
- MECHANICAL: MECHANICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029. CONTACT ENGAGEMENT AND SEPARATION FORCES (SOCKET CONTACT ONLY): SEE TABLE 5. THE ENGAGEMENT DEPTH SHALL BE AS ENCOUNTERED IN NORMAL SERVICE. THE TEST PINS SHALL BE IN ACCORDANCE WITH SAE AS31971 EXCEPT THE DIAMETERS SHALL BE AS SPECIFIED IN TABLE 5. CONDUCTOR RETENTION (TENSILE STRENGTH TEST) IN ACCORDANCE WITH TABLE 7
- ELECTRICAL: ELECTRICAL PROPERTIES SHALL BE IN ACCORDANCE WITH AS39029. LOW SIGNAL LEVEL CONTACT RESISTANCE: 20 MILLIOHMS, MAXIMUM. TESTED WITH 24 AWG TWISTED PAIR. CONTACT RESISTANCE: SEE TABLE 4. DIELECTRIC WITHSTANDING VOLTAGE: 900 V RMS, MINIMUM, AT SEA LEVEL.

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