

**tyco**  
Electronics

Tyco Electronics Corporation  
300 Constitutional Drive  
Menlo Park, CA 94025 USA

**Raychem**

DOCUMENT NUMBER

D-602-0123

REVISION

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## SPECIFICATION CONTROL DRAWING

CONTACTS, ELECTRICAL CONNECTOR, SOCKET  
REMOVABLE SOLDERCONTACTS®,  
SHIELDED, SIZE 8  
(FOR MIL-C-38999 SERIES I, III, IV)

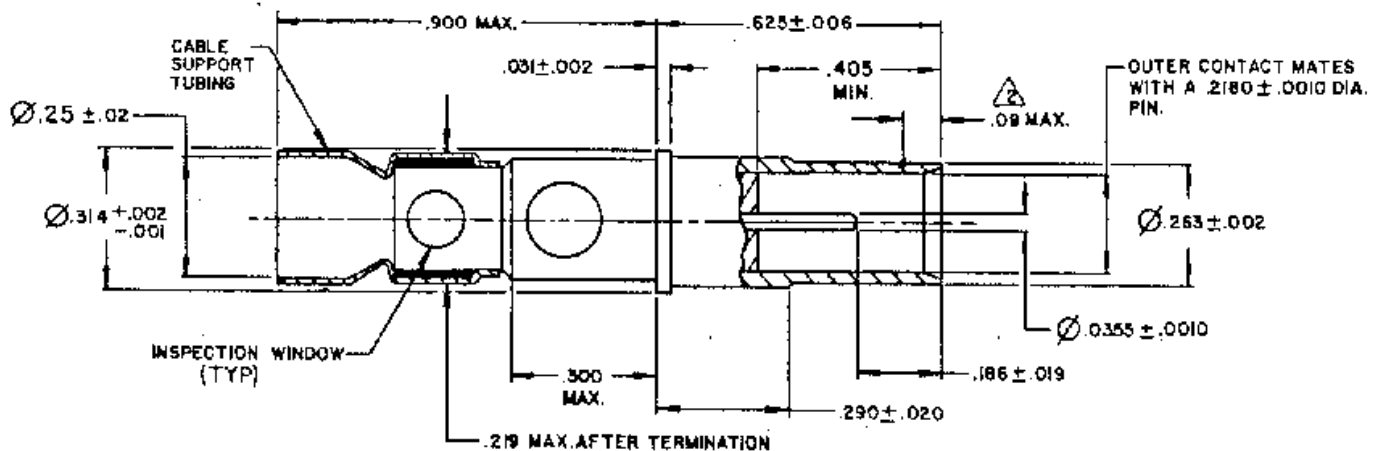


FIGURE 1

Inches	MM	Inches	MM	Inches	MM	Inches	MM
.001	,	.031	,	.250	,	.900	,
.006	,	.0355	,	.263	,		
.019	,	.186	,	.314	,		
.020	,	.218	,	.625	,		

## Notes:

- Dimensions are in inches.

PREPARED BY

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**Requirements:**

Dimensions (Figure 1), design characteristics, and configuration meet the requirements of M39029/59 (except Class A) for the cables listed in Table I herein.

Raychem Qualification Test Report: TR2-6540-018.

Mating contact: D-602-0122.

Tools: See Table II.

**TABLE I. DESIGN CHARACTERISTICS**

Cables Accommodated <u>1/</u>	Type	Class
M17/28 - RG 58 M17/95 - RG 180  Raychem: 5022A1X1X 7522A1X1X 7524A1X1X	COPPER ALLOY SHIELDED	125°C

1/ Other applications should be submitted to Raychem for evaluation.

**TABLE II. TOOLS**

Heating Tools <u>2/</u>	Reflectors <u>2/</u>	Holding Fixtures <u>2/</u>	Removal Tools
AA-400 Super Heater	Mini Solder Sleeve	AD-1319 with AT-1319-22 Adapter	M81969/14-06
CV-5300 Mini Gun	MG-1 Solder Sleeve		

2/ See Termination Procedure: Raychem ES 61179.

Contact resistance: See Table III.

Low signal level contact resistance (inner contact only): See Table IV.

Contact engagement and separation forces (inner socket contact only): The engagement depth shall be as encountered in normal service. The test pins shall be in accordance with MS3197 except the diameters shall be as specified in the following.

Test Pin Diameter (inch)	Minimum Separation Force (ounces)		Maximum Engagement Force (ounces)	
	Initial	After Conditioning	Initial	After Conditioning
.2190 +.0002 -.0000	NA	NA	48.0	60.0
.2170 +.0000 -.0002	4.0	2.0	NA	NA

Dielectric withstanding voltage (applied between inner and outer contact):

Test voltage:

At sea level - 1300 Vac rms.

At 50,000 feet - 250 Vac rms.

Tensile strength: See Table IV.

TABLE III. CONTACT RESISTANCE

Test Cable	Maximum Voltage Drop (millivolts)						Test Current (Amps)	
	25° +3° -0°C		<sup>3/</sup> 25° +3° -0°C		125° +3° -0°C			
	Contact		Contact		Contact		Contact	
	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
M17/28 - RG 58	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
M17/95 - RG 180	120	38	144	46	180	57	1.0	12.0
Raychem								
5022A1312	73	38	88	46	110	57	5.0	12.0
7522A1311	73	TBD	88	TBD	110	TBD	5.0	12.0
7524A1311	52	TBD	62	TBD	78	TBD	3.0	12.0

<sup>3/</sup> After conditioning.

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TABLE IV. LOW SIGNAL LEVEL CONTACT RESISTANCE  
(INNER CONTACT ONLY) AND TENSILE STRENGTH

Test Cable	Maximum Contact Resistance (milliohms)		Tensile Strength (pounds) (minimum)	
	Initial	After Conditioning	Inner Contact	Outer Contact
M17/28 - RG 58	TBD	TBD	TBD	TBD
M17/95 - RG 180	120	144	3.5	20.0
Raychem				
5022A1312	14.6	17.5	10.0	20.0
7522A1311	14.6	17.5	10.0	TBD
7524A1311	17	21	10.0	TBD

Vibration: Test Condition VI, Letter J, per Method 2005 of MIL-STD-1344. Except directions shall be longitudinal and perpendicular. Time duration shall be 8 hours in each direction.

Shock (specified pulse): Test Condition D, per Method 2004 of MIL-STD-1344.

Materials and plating per MIL-C-39029, Type D.

Other materials:

Dielectric: Fluoropolymer  
Cable Tubing: Polyvinylidene Fluoride per MIL-I-23053  
Solder: Sn63 per QQ-S-571

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REV. LETTER	PAGE	DETAILS OF REVISION	DATE	BY
-	"C" Size	Released per E.O. D-0292	04/22/82	JMCC
A	"C" Size	Revised per E.O. D-1059	12/22/82	RMCC
B	"C" Size	Revised per E.O. D-1285	12/25/85	RMCC
C	1-5	Revised per E.O. D-3329	05/02/85	ZT
D	2&5	Revised per E.O. D- <u>3512</u>	6/19/85	30

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