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

DOCUMENT NUMBER	REVISION
DK-602-0170 Series	E

SPECIFICATION CONTROL DRAWING

CONTACTS, ELECTRICAL CONNECTOR, CONCENTRIC, TRIAX, TWINAX CABLE, SOCKET, SOLDERTACT®, SIZE 8, 20 AWG CABLE (FOR MIL-C-38999 SERIES I, III and IV)

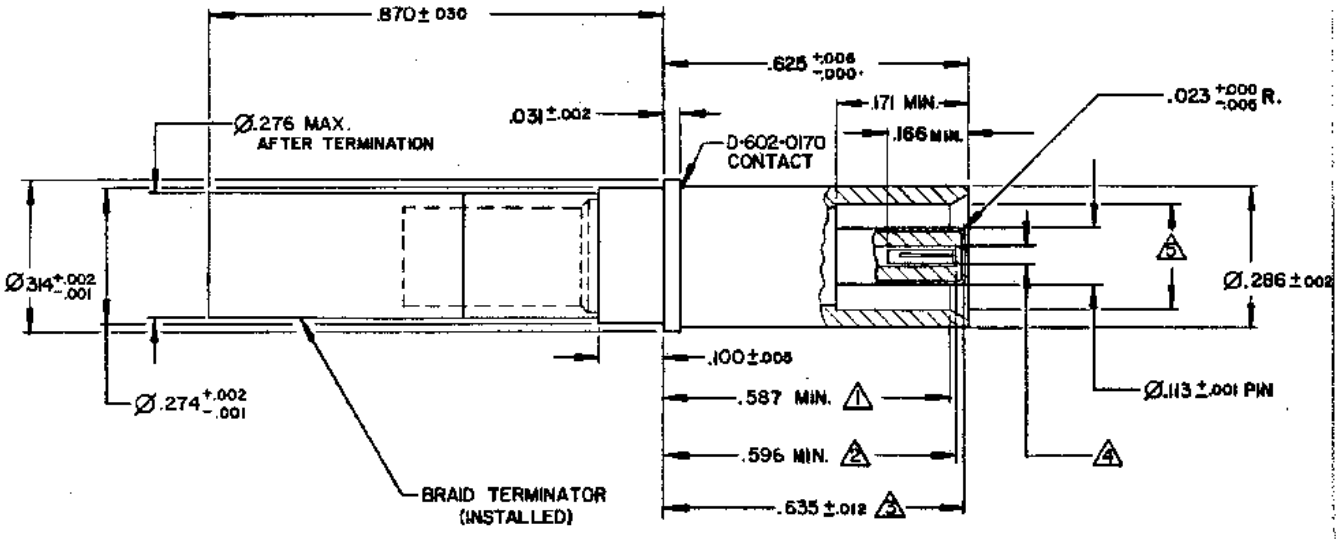

FIGURE 1

TABLE I

Inch	MM	Inch	MM	Inch	MM	Inch	MM
.0010	0.03	.0300	0.76	.2740	6.96	.6250	15.88
.0020	0.05	.0310	0.79	.2760	7.01	.6350	16.13
.0050	0.13	.1000	2.54	.2860	7.26	.8700	22.10
.0060	0.15	.1130	2.87	.3140	7.98		
.0120	0.30	.1660	4.22	.5870	14.91		
.0230	0.58	.1710	4.34	.5960	15.14		

NOTES:

1. To point of engagement of outer socket contact with a .218 basic dia. pin.
2. To point of engagement of inner socket contact with a .0240 basic dia. pin.
3. To end of middle pin contact.
4. Mates with a .0240 ± .0005 diameter pin.
5. Mates with a .218 ± .001 diameter pin.
6. Dimensions are in inches after plating.
7. Metric dimensions are for information only.

PREPARED BY	APPROVED	APPROVED	APPROVED	DOCUMENT NUMBER
Cerdan	IM 5-16-85	DT 5-16-85	DS 5-17-85	DK-602-0170 Series

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Configuration: DK-602-0170-Series Kit contains a Raychem D-602-0170 contact and a Braid Terminator as described in Table II. Note the dash number following the part number.

TABLE II

Part Number	Braid Terminator	Cable O.D. Ref.
DK-602-0170-1	D-600-0054-1	.184 max.

Qualification: Qualification Test Report is on file at Raychem.

Designs and Construction: Dimensions (Figure 1), design characteristics and configurations meet the functional requirement of M39029/91 for cable listed in Table III.

TABLE III. DESIGN CHARACTERISTICS

Contact Cavity Size	Cables Accommodated 1/	Type	Class
8	Raychem 7820D0111	(D) Copper Alloy Shielded	(A) 125°C

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

Mating Contact: D-602-0156, D-602-0169 and M39029/90.

Tools: See Table IV.

TABLE IV. TOOLS

Heating Tools 2/	Reflectors 2/	Holding Fixtures 2/	Installing Tools	Removal Tools
AA-400 Super Heater	Mini Solder Sleeve	Raychem	M81969/14-06	M81969/14-06
CV-5300 Mini Gun	MG-1 SolderSleeve	AD-1319 with AT-1319-22	M81969/46-06	M81969/46-12

2/ See Termination Procedure: Raychem ES 61235.

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Electrical Performance:

Contact Resistance: See Table V.

TABLE V. CONTACT RESISTANCE

Test Cable	Maximum Voltage Drop (millivolts)									Test Current (Amps)		
	25° +3° -0°C			3/ 25° +3° -0°C			125° +3° -0°C					
	CONTACT											
	INNER	MIDDLE	OUTER	INNER	MIDDLE	OUTER	INNER	MIDDLE	OUTER	INNER	MIDDLE	OUTER
Raychem 7820D0111	55	55	75	66	66	90	94	94	128	1.0	1.0	12.0

3/ After conditioning.

Low Signal Level Contact Resistance: See Table VI.

TABLE VI. LOW SIGNAL LEVEL CONTACT RESISTANCE (INNER CONTACT ONLY)

Test Cable	Maximum Contact Resistance (milliohms)	
	Initial	After Conditioning
Raychem 7820D0111	55	66

Dielectric Withstanding Voltage: See Table VII.

TABLE VII. DIELECTRIC WITHSTANDING VOLTAGE

Contacts	Altitude	Test Voltages ac rms
Inner to Middle	Sea Level	1000
Middle to Outer	Sea Level	500

Operating Frequency: 0 to 20 MHz (operating frequency range)
Voltage Rating: 500 volts rms maximum at sea level; 125 volts at 70,000 feet

Mechanical Performance:

Contact Engagement and Separation Force (Socket Contacts Only): See Table VIII.

TABLE VIII. CONTACT ENGAGEMENT AND SEPARATION FORCE

Test Pin Diameter (inch)	Minimum Separation Force (ounces)		Maximum Engagement Force (ounces)	
	Initial	After Conditioning	Initial	After Conditioning
.2190 $^{+.0000}_{-.0001}$	NA	NA	48	60
.2170 $^{+.0001}_{-.0000}$	3.0	2.0	NA	NA
.0245 $^{+.0000}_{-.0001}$	NA	NA	12	14
.0235 $^{+.0001}_{-.0000}$	0.5	0.4	NA	NA

Tensile Strength: See Table IX.

TABLE IX. TENSILE STRENGTH (AT AMBIENT)

Test Cable	Tensile Strength (pounds) (minimum) 4/		
	Inner Contact	Middle Contact	Outer Contact
Raychem 7820D0111	8	8	25

4/ Cable may break before the termination.

Vibration: Per MIL-C-39029/91A.

High Impact Shock: Per MIL-C-39029/91A.

Environmental Performance:

Operating Temperature: -65°C to +125°C.

Humidity: Per MIL-C-39029/91A.

Material:

Raw Material and Plating: Per MIL-C-39029, Type D.

Dielectric: Fluoropolymer.

Insulation Sleeve: Polyvinylidene Fluoride.

Solder: Sn63 per QQ-S-571 with RMA flux.

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REVISION: E

REV. LETTER	PAGE	DETAILS OF REVISION	DATE	BY
N/C	1-6	Released per E.O. D-3159	03/08/85	IM
A	1-6	Revised per E.O. D-3338	05/16/85	IM
B	1	Revised per E.O. D-3456	06/05/85	IM
C	1-6	Revised per ECN T-06287	5/27/86	
D	1,4	Revised per ECN T-08767	10/19/87	
E	2	Revised per ECN# T-11213	12/1/88	