



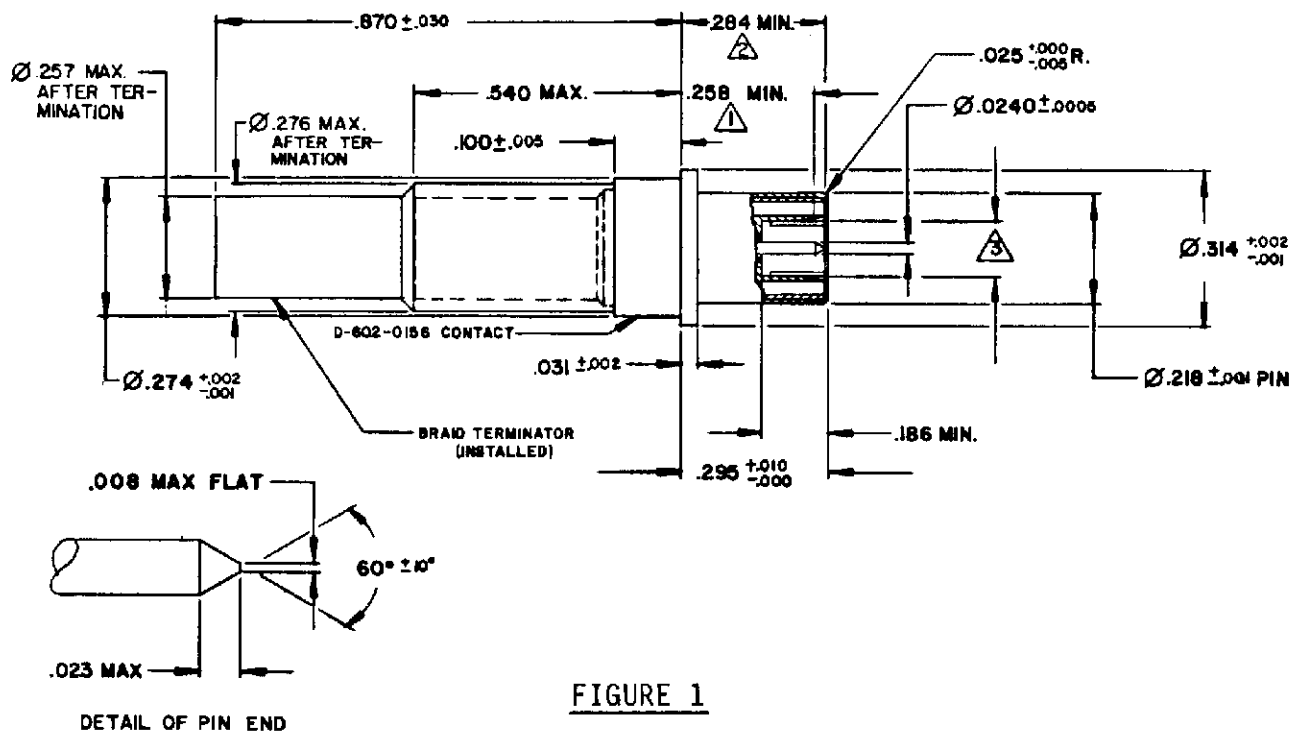
TE Connectivity  
300 Constitutional Drive  
Menlo Park, CA 94025 USA

DOCUMENT NUMBER  
DK-602-0156 Series

REVISION  
F1

# SPECIFICATION CONTROL DRAWING

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



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Configuration: DK-602-0156-Series Kit contains a contact per Figure 1 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-602-0156-1 | D-600-0044-1     | .140 max.       |
| DK-602-0156-2 | D-600-0044-2     | .155 max.       |
| DK-602-0156-3 | D-600-0044-3     | .170 max.       |
| DK-602-0156-4 | D-600-0044-4     | .180 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 M39029/90 for cable listed in Table III.

TABLE III. DESIGN CHARACTERISTICS

| Contact Cavity Size | Cables Accommodated <u>1/</u>             | Type                            | Class        |
|---------------------|-------------------------------------------|---------------------------------|--------------|
| 8                   | <u>Raychem</u><br>10612<br>10613<br>10614 | (D)<br>Copper Alloy<br>Shielded | (A)<br>125°C |

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

Mating Contact: D-602-0157, D-602-0170 and M39029/91.

Tools: See Table IV.

TABLE IV. TOOLS

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

2/ See Termination Procedure: Raychem ES 61231.



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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°<br>-0°C                   |                            |                       | 3/<br>25° +3°<br>-0°C |                            |                       | 125° +3°<br>-0°C      |                            |                       |                       |                            |                       |
|                                               | CONTACT                           |                            |                       |                       |                            |                       |                       |                            |                       |                       |                            |                       |
|                                               | I<br>N<br>N<br>E<br>R             | M<br>I<br>D<br>D<br>L<br>E | O<br>U<br>T<br>E<br>R | I<br>N<br>N<br>E<br>R | M<br>I<br>D<br>D<br>L<br>E | O<br>U<br>T<br>E<br>R | I<br>N<br>N<br>E<br>R | M<br>I<br>D<br>D<br>L<br>E | O<br>U<br>T<br>E<br>R | I<br>N<br>N<br>E<br>R | M<br>I<br>D<br>D<br>L<br>E | O<br>U<br>T<br>E<br>R |
| <u>Raychem</u><br><br>10612<br>10613<br>10614 | 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 |
| <u>Raychem</u> |                                        |                    |
| 10612          | 55                                     | 66                 |
| 10613          |                                        |                    |
| 10614          |                                        |                    |



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Dielectric Withstanding Voltage: See Table VII.

TABLE VII. DIELECTRIC WITHSTANDING VOLTAGE

| Contacts        | Altitude  | Test Voltages<br>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<br>Diameter<br>(inch)                                 | Minimum Separation Force<br>(ounces) |                    | Maximum Engagement Force<br>(ounces) |                    |
|----------------------------------------------------------------|--------------------------------------|--------------------|--------------------------------------|--------------------|
|                                                                | Initial                              | After Conditioning | Initial                              | After Conditioning |
| .1140 $\begin{smallmatrix} +.0000 \\ -.0001 \end{smallmatrix}$ | NA                                   | NA                 | 18                                   | 22                 |
| .1120 $\begin{smallmatrix} +.0001 \\ -.0000 \end{smallmatrix}$ | 0.5                                  | 0.4                | NA                                   | NA                 |

Tensile Strength: See Table IX.

TABLE IX. TENSILE STRENGTH (AT AMBIENT)

| Test Cable     | Tensile Strength<br>(pounds) (minimum) <sup>4/</sup> |                |               |
|----------------|------------------------------------------------------|----------------|---------------|
|                | Inner Contact                                        | Middle Contact | Outer Contact |
| <u>Raychem</u> |                                                      |                |               |
| 10612          | 8                                                    | 8              | 15            |
| 10613          | 8                                                    | 8              | 25            |
| 10614          | 8                                                    | 8              | 25            |

<sup>4/</sup> Cable may break before the termination.



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Vibration: Per MIL-C-39029/90A.

High Impact Shock: Per MIL-C-39029/90A.

Environmental Performance:

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

Humidity: Per MIL-C-39029/90A.

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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| REV.<br>LETTER | PAGE | DETAILS OF REVISION       | DATE     | BY                 |
|----------------|------|---------------------------|----------|--------------------|
| N/C            | 1-6  | Released per E.O. D-3208  | 02/21/85 | 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-06289   | 5/20/86  | <i>[Signature]</i> |
| D              | 2    | Revised per ECN T-7900    | 4/15/87  | <i>[Signature]</i> |
| E              | 1,4  | Revised per ECN T-08767   | 11/19/87 | <i>[Signature]</i> |
| F              | 2,6  | Revised per ECN T-12833   | 8/28/89  | <i>[Signature]</i> |
| F1             |      | REVISED PER ECO-11-005139 | 24MAR11  | RK / HMR           |

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