

- Reliable one-piece solder contacts
- One-step installation
- Termination for coax cables, shielded wires, twisted pairs, triaxial cables

## SolderTacts

### Shielded contacts for MIL-C-38999, series I, II\*, III, IV circular connectors

\*Size 16 only.

One-piece controlled-soldering SolderTacts contacts for MIL-C-38999 circular connectors are designed to terminate coaxial cables, shielded wires, and twisted pairs faster and more reliably than any other method. SolderTacts contacts eliminate the variables associated with hard-to-handle crimping. Their one-step installation accelerates production while reducing handling and installed costs.

#### Controlled soldering

SolderTacts contacts provide the optimum amount and type of solder and flux in

prefluxed solder preforms to control soldering. The geometry of the coaxial cable is carried through the connector to eliminate separate pins, help reduce cross talk, and improve shielding effectiveness and signal transmission.

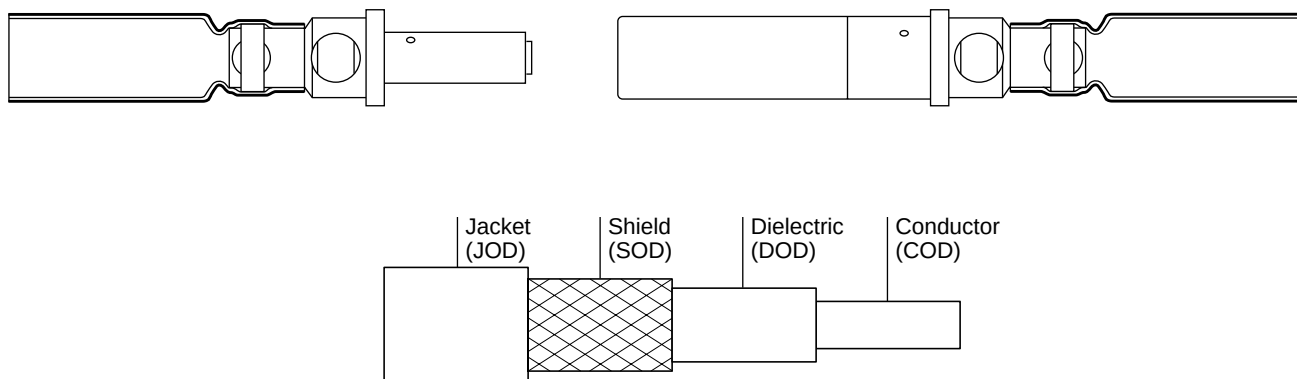
SolderTacts contacts provide simultaneous electrical connection and strain relief. Heat-shrinkable-tubing insulations eliminate stress concentration on the wire within the contact. Because the insulation is transparent and inspection windows are provided, terminations are fully inspectable.

#### Compatibility

The design versatility of SolderTacts contacts makes them exceptionally well suited to military applications.

SolderTacts shielded contacts can be terminated with standard Raychem heating tools. Once terminated, they can be installed into connector cavities with standard insertion and extraction tools. They are replaceable without cutting and restripping or shortening the cable.

#### SolderTacts product construction



#### SolderTacts series: MIL-C-38999

| Contact military specification <sup>a</sup> | United States Air Force drawing no. | Cable diameter (in inches) |           |           |           | Wire (AWG) | Raychem SolderTacts part number | Size | Polarity | Cable type   |
|---------------------------------------------|-------------------------------------|----------------------------|-----------|-----------|-----------|------------|---------------------------------|------|----------|--------------|
|                                             |                                     | JOD                        | SOD       | DOD       | COD       |            |                                 |      |          |              |
| Series I, III, and IV                       |                                     |                            |           |           |           |            |                                 |      |          |              |
| M39029/60                                   |                                     | .150-.234                  | .150-.170 | .060-.151 | .019-.043 | 22-24      | D-602-0122                      | 8    | P        | Coaxial      |
| M39029/59                                   |                                     | .150-.234                  | .150-.170 | .060-.151 | .019-.043 | 22-24      | D-602-0123                      | 8    | S        | Coaxial      |
| M39029/76                                   | 915304-1                            | .050-.103                  | .066-.084 | .036-.068 | .009-.023 | 26-30      | D-602-0140                      | 16   | P        | Coaxial      |
| M39029/77                                   | 915305-1                            | .050-.103                  | .066-.084 | .036-.068 | .009-.023 | 26-30      | D-602-0141                      | 16   | S        | Coaxial      |
| M39029/76                                   | 915304-2                            | n/a                        | n/a       | .025-.043 | .009-.023 | 26-30      | D-602-0142                      | 16   | P        | Twisted pair |
| M39029/77                                   | 915305-2                            | n/a                        | n/a       | .025-.043 | .009-.023 | 26-30      | D-602-0143                      | 16   | S        | Twisted pair |
| M39029/28                                   | 915307-1                            | .058-.122                  | .066-.094 | .044-.080 | .019-.035 | 24-32      | D-602-0144                      | 12   | P        | Coaxial      |
| M39029/75                                   | 915308-1                            | .058-.122                  | .066-.094 | .044-.080 | .019-.035 | 24-32      | D-602-0145                      | 12   | S        | Coaxial      |
| M39029/28                                   | 915307-3                            | n/a                        | n/a       | .029-.057 | .019-.035 | 22-26      | D-602-0146                      | 12   | P        | Twisted pair |
| M39029/75                                   | 915308-3                            | n/a                        | n/a       | .029-.057 | .019-.035 | 22-26      | D-602-0147                      | 12   | S        | Twisted pair |
| M39029/28                                   | 915307-2                            | .075-.150                  | .100-.117 | .050-.103 | .019-.035 | 22, 28     | D-602-0150                      | 12   | P        | Coaxial      |
| M39029/75                                   | 915308-2                            | .075-.150                  | .100-.117 | .050-.103 | .019-.035 | 22, 28     | D-602-0151                      | 12   | S        | Coaxial      |
| M39029/77                                   | 915306-1                            | .050-.103                  | .066-.084 | .036-.068 | .009-.023 | 26-32      | D-602-0171                      | 16   | S        | Coaxial      |
| M39029/77                                   | 915306-2                            | n/a                        | n/a       | .025-.042 | .009-.023 | 26-32      | D-602-0174                      | 16   | S        | Twisted pair |

<sup>a</sup> These SolderTacts contacts are intermateable and intermountable with contacts qualified to indicated specification; they replace crimp-style termination.

## SolderTacts series: MIL-C-38999 (continued)

| Contact military specification <sup>a</sup> | United States Air Force drawing no. | Cable diameter (in inches) |           |           |           | Wire (AWG) | Raychem SolderTacts part number | Size | Polarity | Cable type                |
|---------------------------------------------|-------------------------------------|----------------------------|-----------|-----------|-----------|------------|---------------------------------|------|----------|---------------------------|
|                                             |                                     | JOD                        | SOD       | DOD       | COD       |            |                                 |      |          |                           |
|                                             | 8340712-OS-01                       | .098-.135                  | .066-.120 | .030-.049 | .011-.031 | 24-26      | D-602-1108                      | 8    | S        | Twisted pair <sup>b</sup> |
|                                             | 8340713-OS-01                       | .098-.135                  | .066-.120 | .030-.049 | .011-.031 | 24-26      | D-602-1109                      | 8    | P        | Twisted pair <sup>b</sup> |
|                                             |                                     | .098-.148                  | .066-.130 | .036-.070 | .009-.035 | 22-26      | D-602-1110                      | 8    | S        | Triaxial                  |
|                                             |                                     | .098-.148                  | .066-.130 | .036-.070 | .009-.035 | 22-26      | D-602-1111                      | 8    | P        | Triaxial                  |
|                                             | 8340712-OL-01                       | .098-.135                  | .066-.120 | .030-.049 | .011-.031 | 24-26      | D-602-1112                      | 8    | S        | Twisted pair <sup>b</sup> |
|                                             | 8340713-OL-01                       | .098-.135                  | .066-.120 | .030-.049 | .011-.031 | 24-26      | D-602-1113                      | 8    | P        | Twisted pair <sup>b</sup> |
| M39029/90                                   | 8912020-OS-01                       | .145 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0156-1                   | 8    | P        | Twinaxial                 |
| M39029/90                                   | 8912020-DL-01                       | .162 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0156-2                   | 8    | P        | Twinaxial                 |
| M39029/90                                   | 8912020-EL-01                       | .177 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0156-3                   | 8    | P        | Twinaxial                 |
| M39029/91                                   | 8912019-OS-01                       | .145 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0157-1                   | 8    | S        | Twinaxial                 |
| M39029/91                                   | 8912019-DL-01                       | .162 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0157-2                   | 8    | S        | Twinaxial                 |
| M39029/91                                   | 8912019-EL-01                       | .177 max.                  |           | .029-.051 | .011-.029 | 24-26      | DK-602-0157-3                   | 8    | S        | Twinaxial                 |
| M39029/90                                   | 8912020-OL-01                       | .184 max.                  |           |           |           | 20         | DK-602-0169-1                   | 8    | P        | Twinaxial                 |
| M39029/91                                   | 8912019-OL-01                       | .184 max.                  |           |           |           | 20         | DK-602-0170-1                   | 8    | S        | Twinaxial                 |

## Series II

|           |          |           |           |           |           |       |            |    |   |              |
|-----------|----------|-----------|-----------|-----------|-----------|-------|------------|----|---|--------------|
| M39029/77 | 915306-1 | .050-.103 | .066-.084 | .036-.068 | .009-.023 | 26-30 | D-602-0171 | 16 | S | Coaxial      |
| M39029/77 | 915306-2 |           |           | .025-.042 | .009-.023 | 26-30 | D-602-0174 | 16 | S | Twisted pair |

<sup>a</sup> These SolderTacts contacts are intermateable and intermountable with contacts qualified to indicated specification; they replace crimp-style termination.

<sup>b</sup> These SolderTacts contacts are designed for shielded twisted pair cable per MIL-STD-1553B.

## Tool selection guide

| SolderTacts series | Part numbers (D-602-) | Engineering standard (termination instructions) | Convection (hot air) heating |             | IR1004 infrared semiautomatic heater tool set | Contact insertion tool            | Contact removal tool*                 |
|--------------------|-----------------------|-------------------------------------------------|------------------------------|-------------|-----------------------------------------------|-----------------------------------|---------------------------------------|
|                    |                       |                                                 | AT-1319 adapter              | Repair wand |                                               |                                   |                                       |
| 999<br>Size 16     | 0140/0141             | ES61226                                         | AT-1319-78                   | AD-1565     | AT-1044-70 (P)<br>AT-1044-69 (S)              | M81969/8-07<br>or<br>M81969/14-03 | M81869/8-08<br>or<br>M81969/14-03     |
|                    | 0142/0143             | ES61224                                         |                              |             |                                               |                                   |                                       |
|                    | 0171<br>0174          | ES61226<br>ES61224                              | AT-1319-27                   | AD-1572     |                                               |                                   |                                       |
| 999<br>Size 12     | 0144/0145             | ES61206                                         | AT-1319-24                   | AD-1566     | AT-1044-72 (P)<br>AT-1044-71 (S)              | M81969/8-09<br>or<br>M81969/14-04 | M81969/8-10<br>or<br>M81969/14-04     |
|                    | 0146/0147             | ES61218                                         |                              |             |                                               |                                   |                                       |
|                    | 0150/0151             | ES61223                                         |                              |             |                                               |                                   |                                       |
| 999<br>Size 8      | 0122/0123             | ES61179                                         | AT-1319-22                   | AD-1568     |                                               |                                   | M81969/14-06<br>or<br>Astro ATBX-2277 |
|                    | 1108/1109             | ES61172                                         | AT-1319-22                   | AD-1568     |                                               |                                   |                                       |
|                    | 1110/1111             | ES61172                                         | and                          | and         |                                               |                                   |                                       |
|                    | 1112/1113             | ES61184                                         | AT-1319-14                   | AD-1480     |                                               |                                   |                                       |
|                    | 0156/0157-X           | ES61231                                         |                              |             |                                               |                                   |                                       |
|                    | 0169/0170-X           | ES61235                                         |                              |             |                                               |                                   |                                       |

\*Raychem does not provide this tool. See connector manufacturer.

## Performance

The performance of SolderTacts contacts is defined by the applicable Raychem specification control drawing (SCD) and Raychem Specification D-6002. Products on qualified product lists meet the requirements of the base specification.

## Termination

Termination of SolderTacts contacts is defined in the appropriate Raychem Engineering Standard. To obtain a copy, contact your Raychem representative.

SolderTacts is a trademark of Tyco Electronics Corporation.

*All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Tyco Electronics makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. Tyco Electronics only obligations are those in the Standard Terms and Conditions of Sale for this product and in no case will Tyco Electronics be liable for any incidental, indirect or consequential damages arising from the sale, resale, use, or misuse of the product. Tyco Electronics Specifications are subject to change without notice. In addition, Tyco Electronics reserves the right to make changes in materials or processing without notification to the Buyer which do not affect compliance with any applicable specification.*

**Tyco Electronics Corporation**  
Raychem  
305 Constitution Drive  
Menlo Park, CA 94025  
U.S.A.  
www.tycoelectronics.com

**Tyco Electronics UK Ltd.**  
Raychem  
Cheney Manor Industrial Estate  
Swindon, Wiltshire SN2 2QE  
U.K.

**Tyco Electronics Raychem K.K.**  
Raychem  
3816 Noborito, Tama-ku  
Kawasaki 214-8533  
Japan

**Raychem Singapore Pte. Ltd.**  
Raychem  
No. 26 Ang Mo Kio Ind. Park  
Singapore 569507