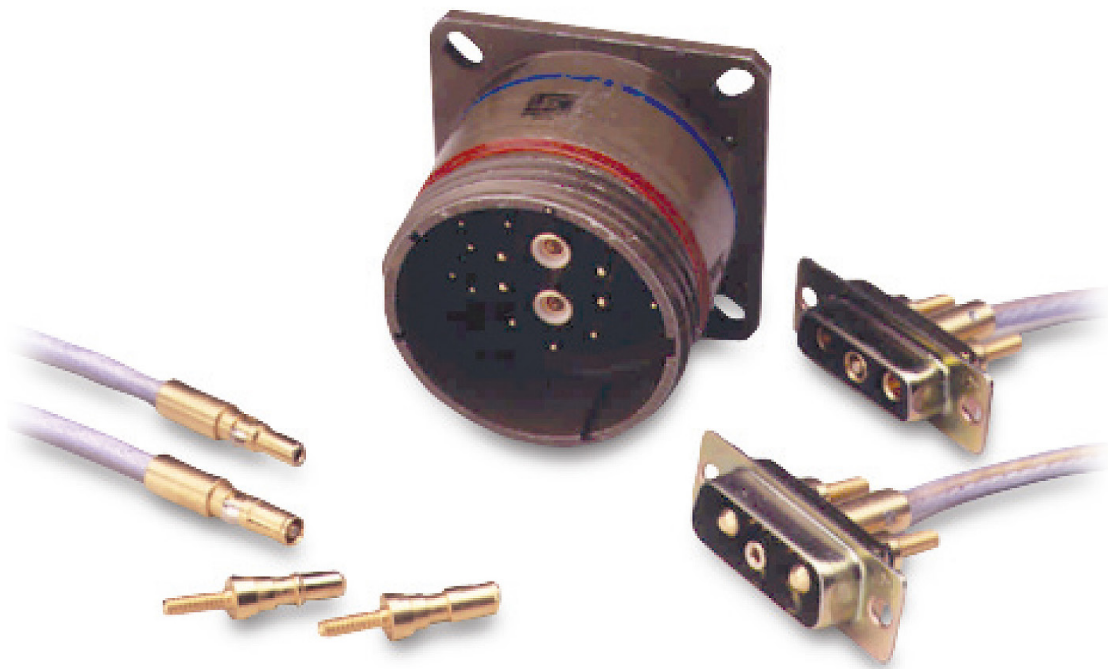
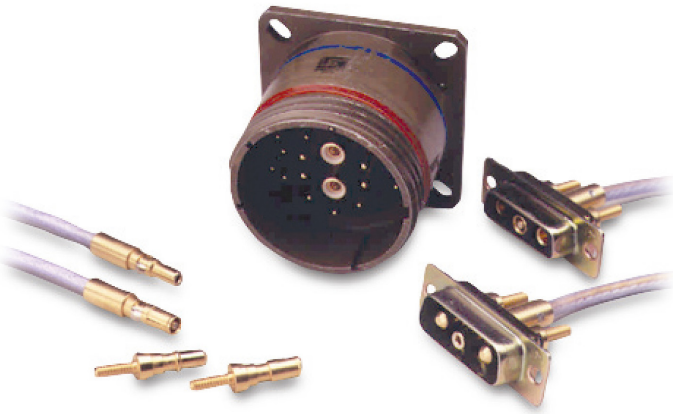


Triaxial Contacts



Triaxial Contacts



Smiths Interconnect's concentric twinax/triax contacts provide flexibility in the design of high speed data systems. The contacts, including the unique sizes 10 and 12, have the same outline dimensions as traditional coax and power contacts and fit various insert arrangements for D-sub, circular, and rack and panel connectors. The triaxial cable type connectors and contacts are designed for low-loss concentric 50, 75 and 95 Ohm cable types.

An innovative design of triax/twinax contacts opens a whole new world of design options. These small, rugged contacts fit standard connector contact cavities for MIL-DTL-38999, MIL-DTL-83527, ARINC, and D-sub connector types.

Smiths Interconnect also manufactures a complete line of standalone triax connectors including the ultra-miniature NDLC connector series as well as other specific application configurations.

Features

Fits standard MIL-DTL-38999 size 8, 10 & 12 contact cavities, MIL-DTL-83527 size 8, D-sub size 8, and ARINC size 1, 5, 8, 9 & 12 standard rack & panel connector cavities.

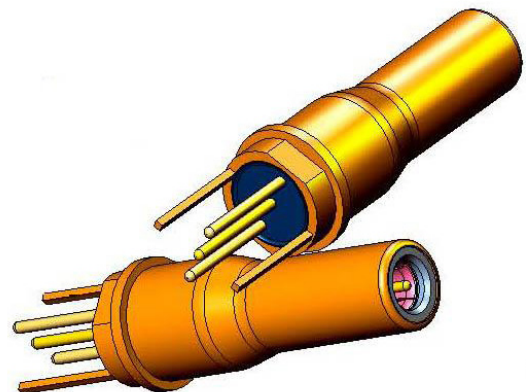
Designed for MIL-C-17/176 Data Bus networks and high speed Ethernet and Fibre Channel system

Suitable for high speed video applications, 50, 75 & 95 Ohm impedances

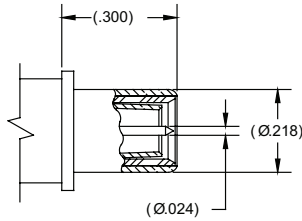
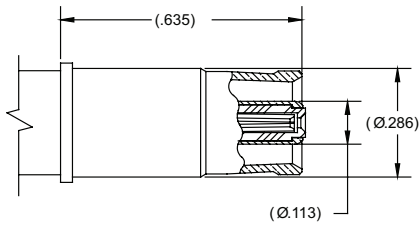
Upgrade coax harnesses to triax capability

Small size for high density packaging

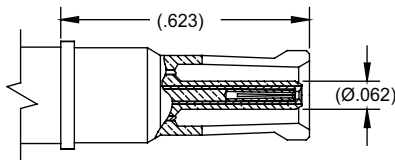
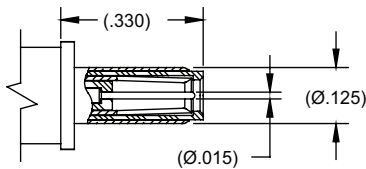
Includes high speed Fibre Channel hot-link product line series



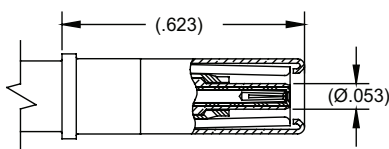
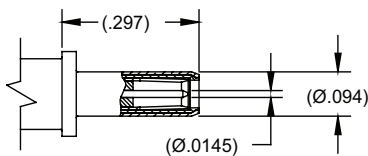
Interface Dimensions



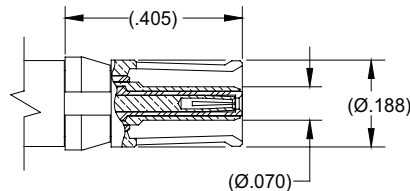
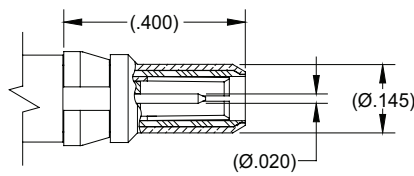
SIZE 8, MIL-C-39029/90 & /91



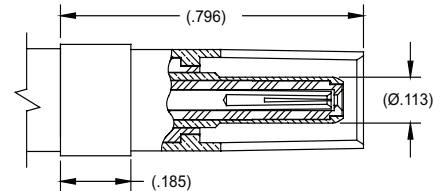
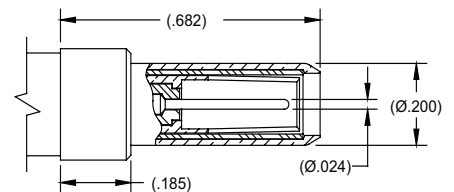
SIZE 10, MIL-DTL-38999



SIZE 12, MIL-DTL-38999



SIZE 8, MIL-PRF-24308



SIZE 9, MIL-C-81659 (ARINC 404)

Mechanical & Environmental Specifications

| | |
|--------------------|--|
| Temperature Rating | -65°C to + 165°C |
| Corrosion | MIL-STD-202 Method 101, Test Condition B |
| Shock | MIL-STD-202 Method 213, Test Condition B |
| Vibration | MIL-STD-202 Method 204, Test Condition B |
| Thermal Shock | MIL-STD-202 Method 107, Test Condition B |
| Durability | 1000 Mate/Unmate cycles min. |

Electrical Specifications

| | |
|---------------------------------|---|
| Dielectric Withstanding Voltage | Center contact to intermediate contact: 1000 Vrms min. Size 12: 500 Vrms min. Intermediate contact to outer contact: 400 Vrms min. Size 12: 200 Vrms min |
| Insulation Resistance | 5000 MOhms min. @ 200 VDC |
| Contact Current Rating | 3 Amps DC max.: Size 12: 1.5 Amps DC max. |
| Voltage Rating | 500 Vrms @ sea level: Size 12: 200 Vrms @ sea level |

Materials and Finishes

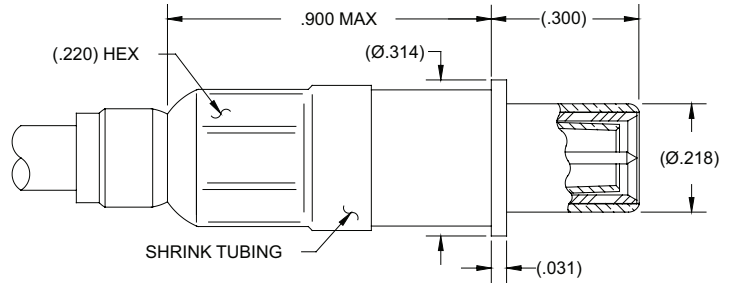
| | |
|--|---|
| Shell & Center/ Intermediate Contacts | Brass per ASTM-B16, Alloy UNS C36000 or BeCu per ASTM-B196, Alloy UNS C17200, C17300 or Leaded Nickel Copper, Alloy UNS C19500, C19600 Gold plate per MIL-DTL-45204, Type II, Class 1 |
| Insulators | PTFE per ASTM-D 1710 or equivalent |
| Hood | 305 CRES per ASTM-A240, passivated per ASTM-A967 |

All specifications subject to change without notice.

Smiths Interconnect provides specialty, enhanced performance connectors and cable assemblies and as such does not currently offer circular, rack and panel, or D-subminiature connectors that are listed on military standard Qualified Products Lists (QPL) per applicable detail specification sheets. Smiths Interconnect's connectors are fully intermateable with applicable QPL products and meet the applicable requirements of all military standards listed in this catalog.

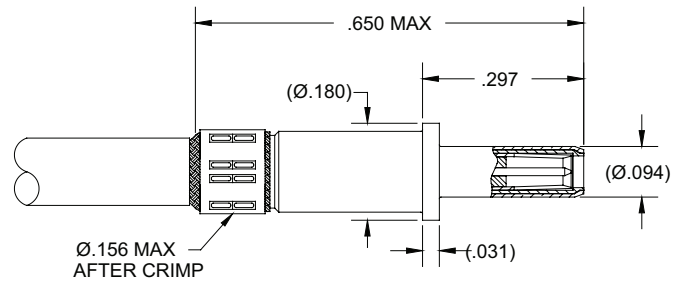
Size 8 MIL-C-39029/90 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019612-2001 | Flexible Twinax | M17/176-00002 |
| 019612-2002 | Flexible Twinax | 540-1086-000 |
| 019612-2003 | Flexible Triax | RG-403 |
| 019612-2004 | Flexible Triax | 540-1050-000 |
| 019612-2031 | Flexible Triax | 540-1081-000 |



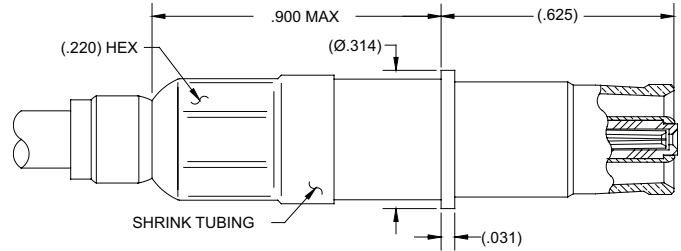
Size 12 MIL-DTL-38999 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018612-2001 | Flexible Twinax | M17/176-00002 |
| 018612-2002 | Flexible Twinax | 540-1086-000 |
| 018612-2003 | Flexible Triax | RG-403 |
| 018612-2004 | Flexible Triax | 540-1050-000 |
| 018612-2041 | Flexible Triax | 540-1081-000 |



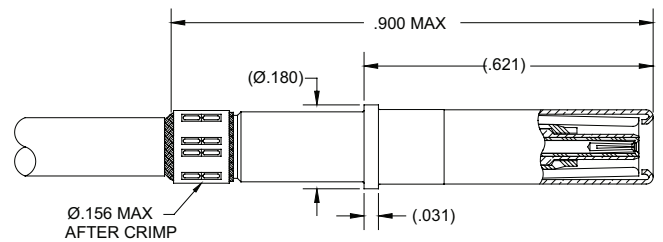
Size 8 MIL-C-39029/91 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019512-2001 | Flexible Twinax | M17/176-00002 |
| 019512-2002 | Flexible Twinax | 540-1086-000 |
| 019512-2003 | Flexible Triax | RG-403 |
| 019512-2004 | Flexible Triax | 540-1050-000 |
| 019512-2031 | Flexible Triax | 540-1081-000 |



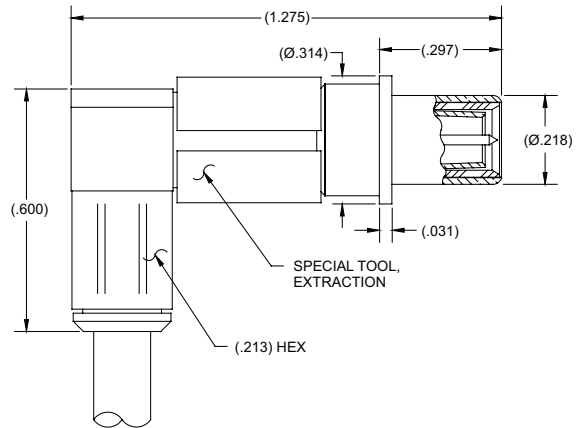
Size 12 MIL-DTL-38999 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018712-2001 | Flexible Twinax | M17/176-00002 |
| 018712-2002 | Flexible Twinax | 540-1086-000 |
| 018712-2003 | Flexible Triax | RG-403 |
| 018712-2004 | Flexible Triax | 540-1050-000 |
| 018712-2041 | Flexible Triax | 540-1081-000 |



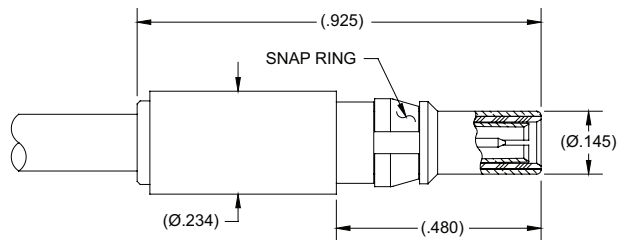
Size 8 MIL-C-39029/90 Twinax/Triax Right Angle Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019612-1010 | Flexible Twinax | M17/176-00002 |
| 019612-1011 | Flexible Twinax | 540-1086-000 |
| 019612-1012 | Flexible Triax | RG-403 |
| 019612-1013 | Flexible Triax | 540-1050-000 |
| 019612-1016 | Flexible Triax | 540-1081-000 |



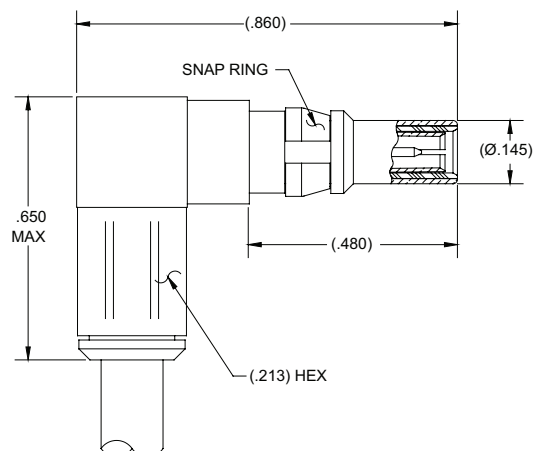
Size 8 MIL-PRF-24308 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019812-2001 | Flexible Twinax | M17/176-00002 |
| 019812-2002 | Flexible Twinax | 540-1086-000 |
| 019812-2003 | Flexible Triax | RG-403 |
| 019812-2004 | Flexible Triax | 540-1050-000 |
| 019812-2031 | Flexible Triax | 540-1081-000 |



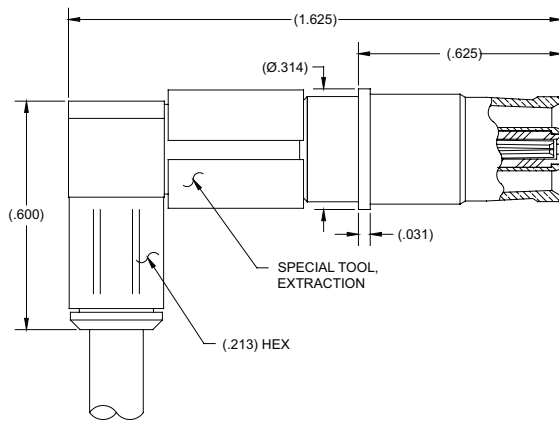
Size 8 MIL-PRF-24308 Twinax/Triax Right Angle Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019812-1010 | Flexible Twinax | M17/176-00002 |
| 019812-1011 | Flexible Twinax | 540-1086-000 |
| 019812-1012 | Flexible Triax | RG-403 |
| 019812-1013 | Flexible Triax | 540-1050-000 |
| 019812-1016 | Flexible Triax | 540-1081-000 |



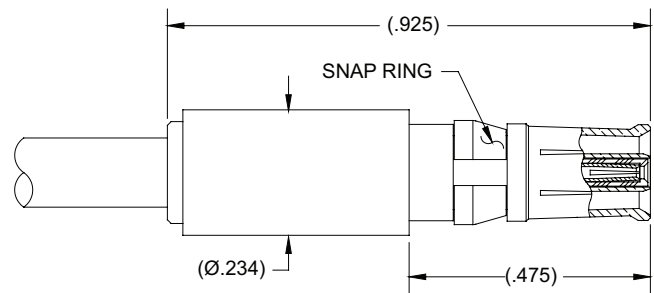
Size 8 MIL-C-39029/91 Twinax/Triax Right Angle Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019512-1010 | Flexible Twinax | M17/176-00002 |
| 019512-1011 | Flexible Twinax | 540-1086-000 |
| 019512-1012 | Flexible Triax | RG-403 |
| 019512-1013 | Flexible Triax | 540-1050-000 |
| 019512-1016 | Flexible Triax | 540-1081-000 |



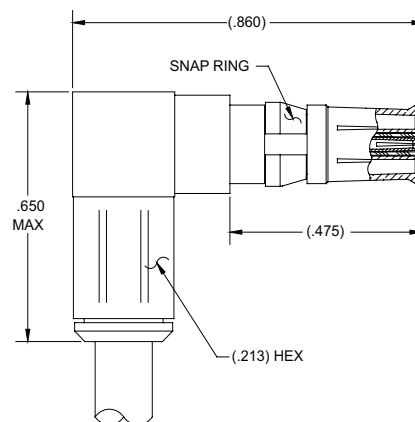
Size 8 MIL-PRF-24308 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019712-2001 | Flexible Twinax | M17/176-00002 |
| 019712-2002 | Flexible Twinax | 540-1086-000 |
| 019712-2003 | Flexible Triax | RG-403 |
| 019712-2004 | Flexible Triax | 540-1050-000 |
| 019712-2031 | Flexible Triax | 540-1081-000 |



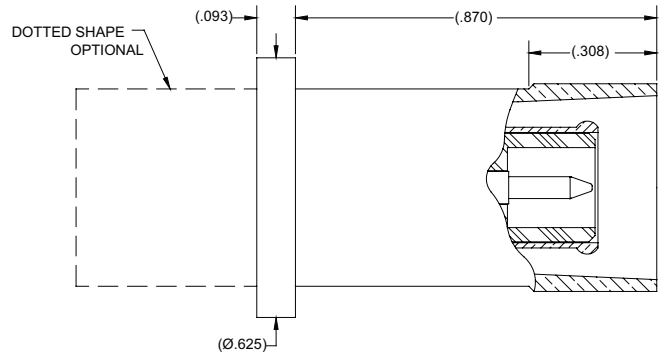
Size 8 MIL-PRF-24308 Twinax/Triax Right Angle Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019712-1010 | Flexible Twinax | M17/176-00002 |
| 019712-1011 | Flexible Twinax | 540-1086-000 |
| 019712-1012 | Flexible Triax | RG-403 |
| 019712-1013 | Flexible Triax | 540-1050-000 |
| 019712-1016 | Flexible Triax | 540-1081-000 |



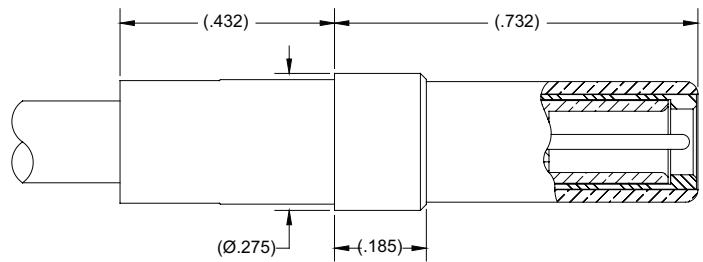
Size 1 ARINC 600 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018012-2110 | Flexible Twinax | M17/176-00002 |
| 018012-2111 | Flexible Twinax | 540-1086-000 |
| 018012-2112 | Flexible Triax | RG-403 |
| 018012-2113 | Flexible Triax | 540-1050-000 |
| 018012-2114 | Flexible Triax | 540-1081-000 |



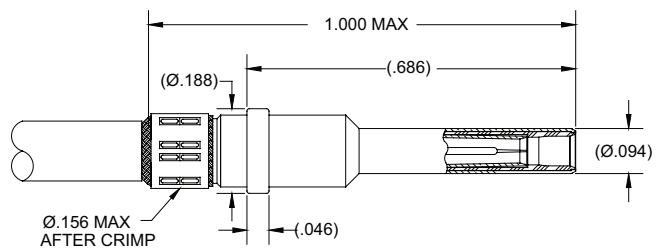
Size 5 ARINC 600 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019412-2110 | Flexible Twinax | M17/176-00002 |
| 019412-2111 | Flexible Twinax | 540-1086-000 |
| 019412-2112 | Flexible Triax | RG-403 |
| 019412-2113 | Flexible Triax | 540-1050-000 |
| 019412-2116 | Flexible Triax | 540-1081-000 |



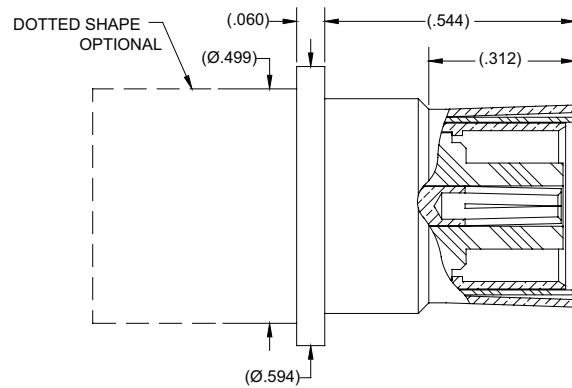
Size 12 ARINC 600 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018612-2110 | Flexible Twinax | M17/176-00002 |



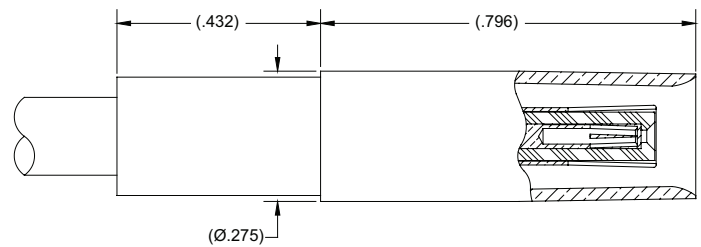
Size 1 ARINC 600 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018112-2110 | Flexible Twinax | M17/176-00002 |
| 018112-2111 | Flexible Twinax | 540-1086-000 |
| 018112-2112 | Flexible Triax | RG-403 |
| 018112-2113 | Flexible Triax | 540-1050-000 |
| 018112-2114 | Flexible Triax | 540-1081-000 |



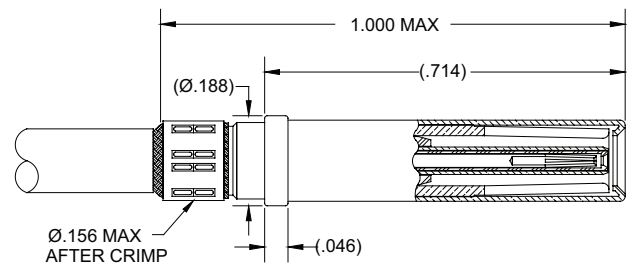
Size 5 ARINC 600 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019312-2110 | Flexible Twinax | M17/176-00002 |
| 019312-2111 | Flexible Twinax | 540-1086-000 |
| 019312-2112 | Flexible Triax | RG-403 |
| 019312-2113 | Flexible Triax | 540-1050-000 |
| 019312-2116 | Flexible Triax | 540-1081-000 |



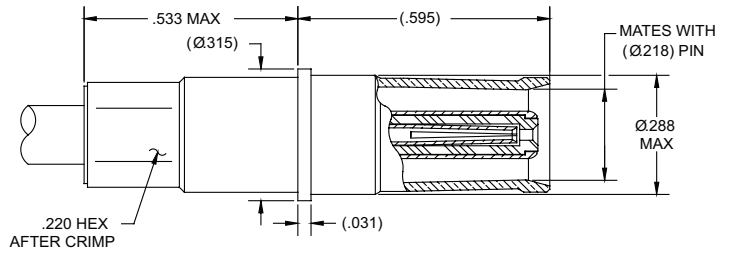
Size 12 ARINC 600 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 018712-2110 | Flexible Twinax | M17/176-00002 |



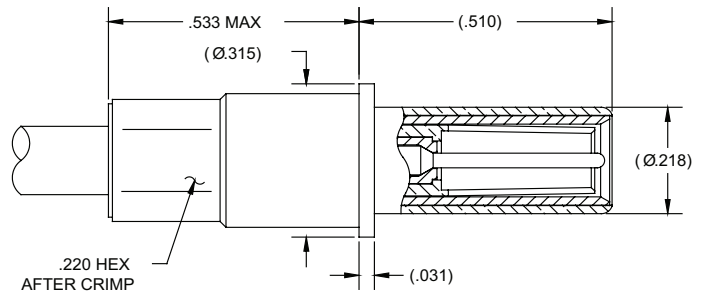
Size 8 MIL-DTL-83527 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019512-2123 | Flexible Twinax | M17/176-00002 |
| 019512-2124 | Flexible Twinax | 540-1161-000 |
| 019512-2125 | Flexible Twinax | 540-1086-000 |



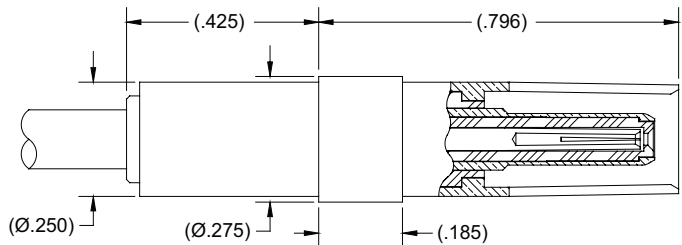
Size 8 MIL-DTL-83527 Twinax/Triax Pin Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019612-2125 | Flexible Twinax | M17/176-00002 |
| 019612-2126 | Flexible Twinax | 540-1161-000 |
| 019612-2127 | Flexible Twinax | 540-1086-000 |



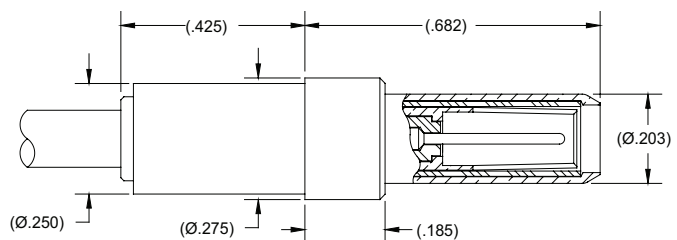
Size 9 ARINC 404 Twinax/Triax Socket Contact

| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019112-2001 | Flexible Twinax | M17/176-00002 |
| 019112-2002 | Flexible Twinax | 540-1086-000 |
| 019112-2003 | Flexible Triax | RG-403 |
| 019112-2004 | Flexible Triax | 540-1050-000 |
| 019112-2031 | Flexible Triax | 540-1081-000 |



Size 9 ARINC 404 Twinax/Triax Pin Contact

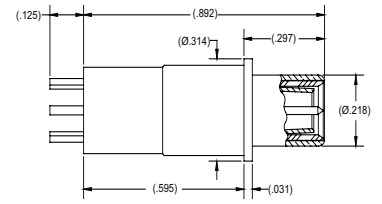
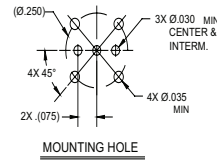
| Part Number | Cable Type | Cable |
|-------------|-----------------|---------------|
| 019212-2001 | Flexible Twinax | M17/176-00002 |
| 019212-2002 | Flexible Twinax | 540-1086-000 |
| 019212-2003 | Flexible Triax | RG-403 |
| 019212-2004 | Flexible Triax | 540-1050-000 |
| 019212-2031 | Flexible Triax | 540-1081-000 |



Size 8 MIL-C-39029/90 PC Tail Twinax/Triax Pin Contact

Part Number

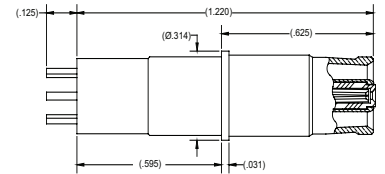
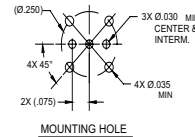
019617-2100



Size 8 MIL-C-39029/91 PC Tail Twinax/Triax Socket Contact

Part Number

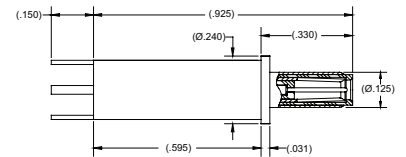
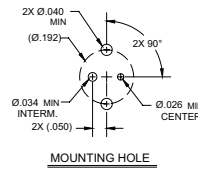
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Size 10 MIL-DTL-38999 PC Tail Twinax/Triax Pin Contact

Part Number

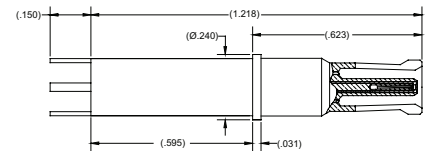
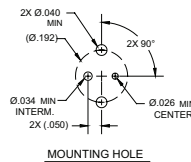
018817-2100



Size 10 MIL-DTL-38999 PC Tail Twinax/Triax Socket Contact

Part Number

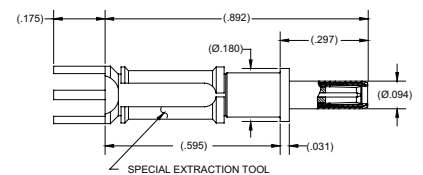
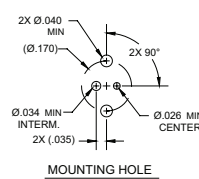
018917-2100



Size 12 MIL-DTL-38999 PC Tail Twinax/Triax Pin Contact

Part Number

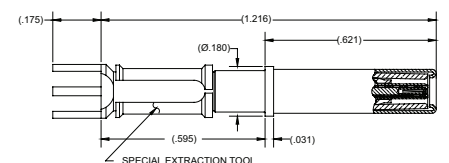
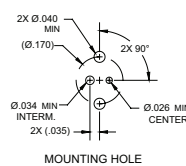
018617-2100



Size 12 MIL-DTL-38999 PC Tail Twinax/Triax Socket Contact

Part Number

018717-2100



Note: Smiths Interconnect's Twinax/Triax PC Tail Contacts are only available installed into an applicable Smiths Interconnect connector. These items are not sold separately.

How To Order



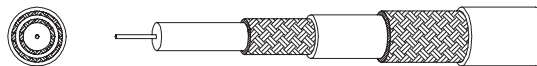
1 Connector #1

| | | |
|------------------------|--|---|
| 2 Cable Group # | Flexible Twinax | Flexible Triax |
| | 1 = M17/176-00002 2 = 540-1086-000 3 = 540-1161-000 | 2 1 = RG-403 2 2 = 540-1050-000 2 3 = 540-1081-000 |
| 3 Connector #2 | OL for Open Lead | |

4 Cable Length in Inches (XXX)



| Flexible Twinax Cables | | | | | |
|------------------------|-------------------|---------------------|------------------|--------|-----------------|
| Cable Group | Cable Designation | Manufacturer | Impedance (Ohms) | Jacket | Conductor (DIA) |
| 1 | M17/176-00002 | Mil-Spec | 77 | 0.129" | 0.024" |
| 2 | 540-1086-000 | Smiths Interconnect | 98 | 0.143" | 0.019" |
| 3 | 540-1161-000 | Smiths Interconnect | 100 | 0.130" | 0.024" |



| Flexible Triax Cables | | | | | |
|-----------------------|-------------------|---------------------|------------------|--------|-----------------|
| Cable Group | Cable Designation | Manufacturer | Impedance (Ohms) | Jacket | Conductor (DIA) |
| 21 | RG-403 | Mil-Spec | 50 | 0.116" | 0.012" |
| 22 | 540-1050-000 | Smiths Interconnect | 75 | 0.125" | 0.012" |
| 23 | 540-1081-000 | Smiths Interconnect | 95 | 0.125" | 0.008" |

Global Support

UK Headquarters

- London, UK
+44 20 7004 1600
info.uk@smithsinterconnect.com

US Headquarters

- Stuart, FL
+1 772 286 9300
info.us@smithsinterconnect.com

Americas

- Costa Mesa, CA
+1 714 371 1100
info.us@smithsinterconnect.com
- Milpitas, CA
+1 408 957 9607 x-1125
info.us@smithsinterconnect.com
- Stuart, FL
+1 772 286 9300
info.us@smithsinterconnect.com
- Hudson, MA
+1 978 568 0451
info.us@smithsinterconnect.com
- Northampton, MA
+1 413 582 9620
info.northamptonsmithsinterconnectinc.com
- Tampa, FL
+1 813 901 7200
info.tampa@smithsinterconnectinc.com
- Kansas City, KS
+1 913 342 5544
info.us@smithsinterconnect.com
- Salisbury, MD
+1 800 780 2169
info.us@smithsinterconnect.com
- Thousand Oaks, CA
+1 805 267 0100
info.thousandoaks@smithsinterconnectinc.com

Europe

- Deggendorf, Germany
+49 991 250 120
info.de@smithsinterconnect.com
- Genova, Italy
+39 0 10 60361
info.it@smithsinterconnect.com
- Dundee, UK
+44 1382 427 200
info.dundee@smithsinterconnect.com
- Rouen, France
+33 2 32 96 91 76
info.fr@smithsinterconnect.com
- Elstree, UK
+44 20 8236 2400
info.uk@smithsinterconnect.com

Asia

- Shanghai, China
+86 21 3318 4650
asiainfo@smithsinterconnect.com
- Suzhou, China
+86 512 6273 1188
asiainfo@smithsinterconnect.com
- Singapore
+65 6846 1655
asiainfo@smithsinterconnect.com

more > [smithsinterconnect.com](https://www.smithsinterconnect.com)

