

smiths connectors

TRIAxAL CONTACTS



TRIAXIAL CONTACTS

OVERVIEW

Smiths Connectors' 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.

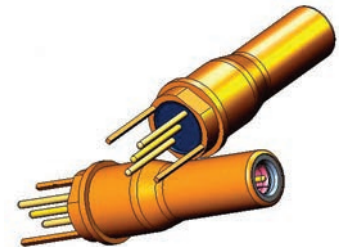
An innovative design of triax/twinax contacts opens a whole new world of design options. These small, rugged contacts fit standard connector contact cavities for MIL-DTL-38999, MIL-DTL-83527, ARINC, and d-sub connector types.

Smiths Connectors also manufactures a complete line of stand-alone triax connectors including the ultraminiature NDL connector series as well as other specific application configurations.

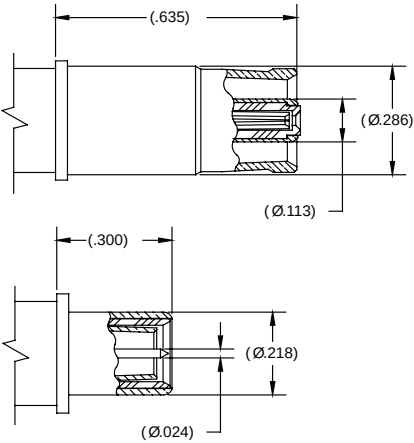


FEATURES

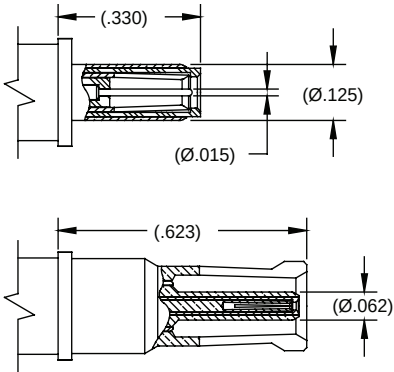
- ▶ Fits standard MIL-DTL-38999 size 8, 10 & 12 contact cavities, MIL-DTL-83527 size 8, d-sub size 8, and ARINC size 1, 5, 8, 9 & 12 standard rack & panel connector cavities.
- ▶ Designed for MIL-C-17/176 Data Bus networks and high speed Ethernet and Fibre Channel system
- ▶ Suitable for high speed video 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



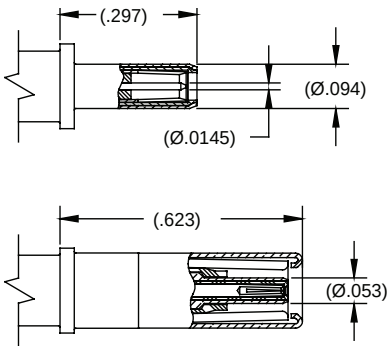
Interface Dimensions



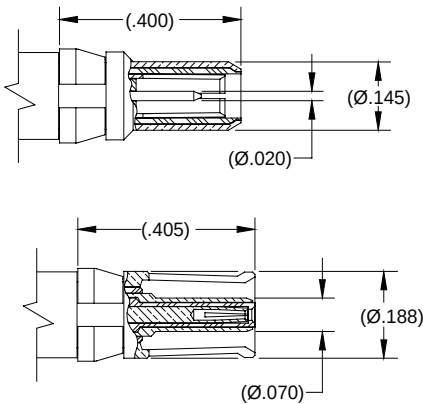
SIZE 8, MIL-C-39029/90 & /91



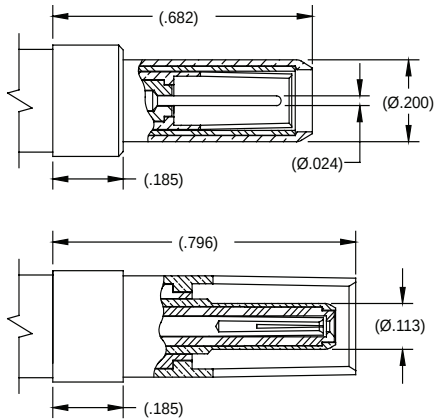
SIZE 10, MIL-DTL-38999



SIZE 12, MIL-DTL-38999



SIZE 8, MIL-PRF-24308



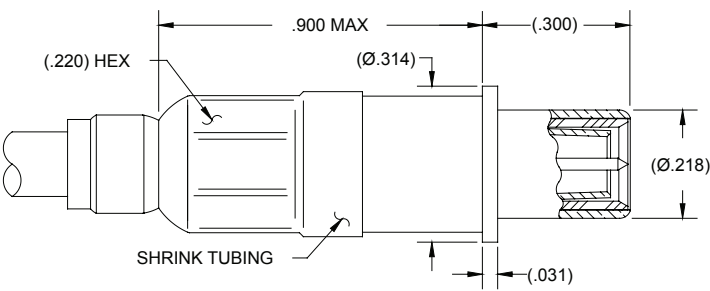
SIZE 9, MIL-C-81659 (ARINC 404)

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 Mega-Ohms min. @ 200 VDC
Contact Current Rating	3.0 Amps D.C. max.: Size 12: 1.5 Amps D.C. max.
Voltage Rating	500 Vrms @ sea level: Size 12: 200 Vrms @ sea level
MATERIAL & 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.

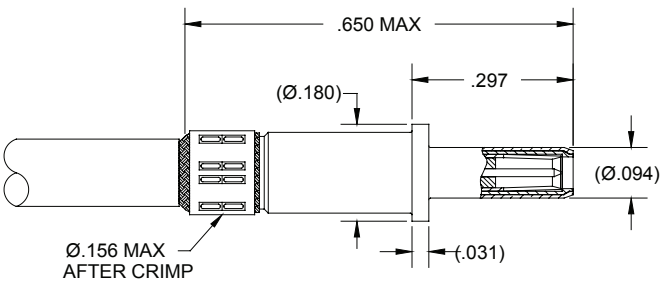
Smiths Connectors provides specialty, enhanced performance connectors and cable assemblies and as such does not currently offer circular, rack and panel, or D-subminiature connectors that are listed on military standard Qualified Products Lists (QPL) per applicable detail specification sheets. Smiths Connectors' 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**



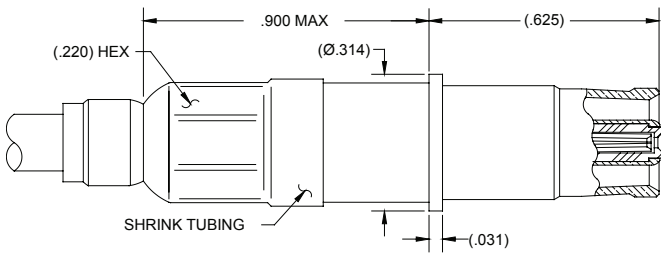
PART NUMBER	CABLE TYPE	CABLE
019612-2001	Flexible Twinax	M17/176-00002
019612-2002	Flexible Twinax	540-1086-000
019612-2003	Flexible Triax	RG-403
019612-2004	Flexible Triax	540-1050-000
019612-2031	Flexible Triax	540-1081-000

► **SIZE 12 MIL-DTL-38999 TWINAX/TRIAX PIN CONTACT**



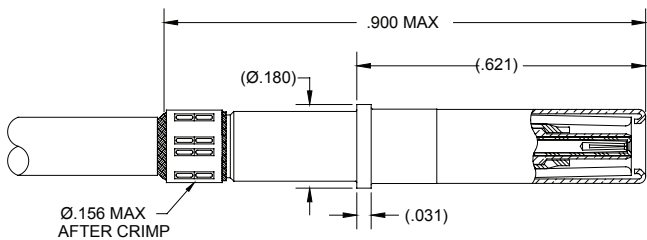
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018612-2002	Flexible Twinax	540-1086-000
018612-2003	Flexible Triax	RG-403
018612-2004	Flexible Triax	540-1050-000
018612-2041	Flexible Triax	540-1081-000

▶ SIZE 8 MIL-C-39029/91 TWINAX/TRIAX SOCKET CONTACT



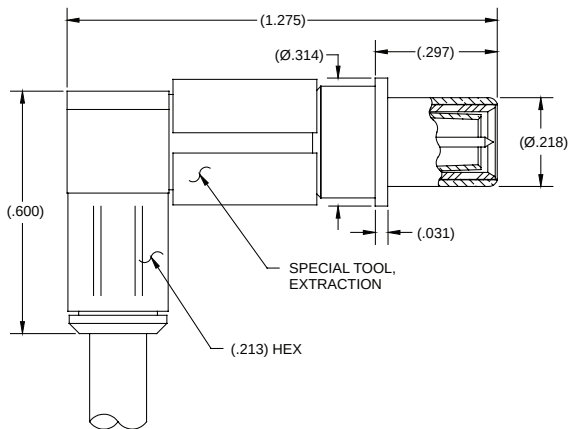
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019512-2004	Flexible Triax	540-1050-000
019512-2031	Flexible Triax	540-1081-000

▶ SIZE 12 MIL-DTL-38999 TWINAX/TRIAX SOCKET CONTACT



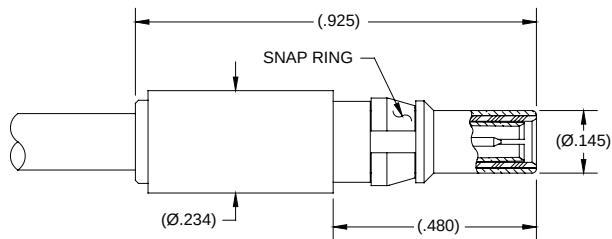
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018712-2004	Flexible Triax	540-1050-000
018712-2041	Flexible Triax	540-1081-000

► **SIZE 8 MIL-C-39029/90 TWINAX/TRIAX RIGHT ANGLE PIN CONTACT**



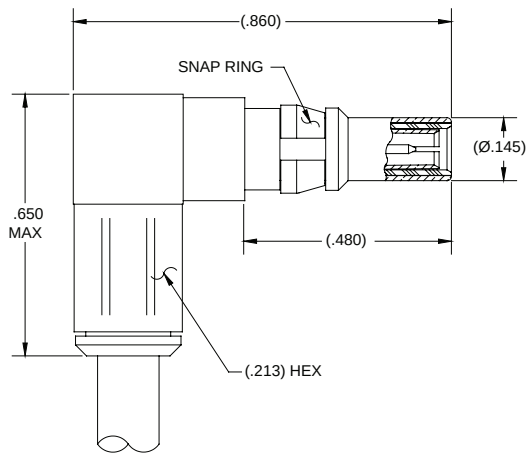
PART NUMBER	CABLE TYPE	CABLE
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019612-1012	Flexible Triax	RG-403
019612-1013	Flexible Triax	540-1050-000
019612-1016	Flexible Triax	540-1081-000

► **SIZE 8 MIL-PRF-24308 TWINAX/TRIAX PIN CONTACT**



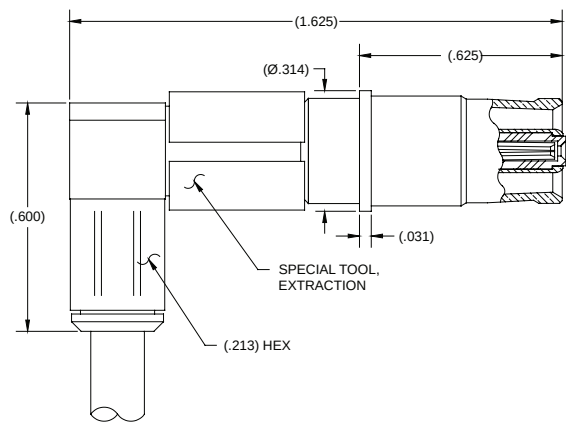
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► **SIZE 8 MIL-PRF-24308 TWINAX/TRIAX RIGHT ANGLE PIN CONTACT**



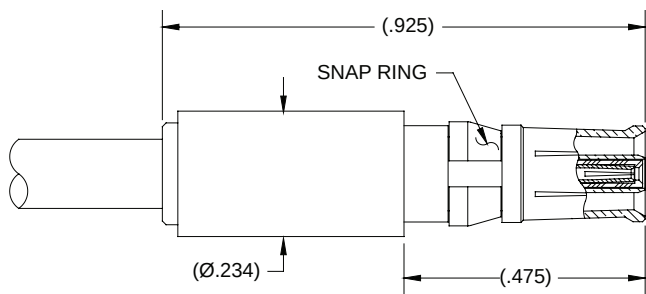
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019812-1013	Flexible Triax	540-1050-000
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▶ **SIZE 8 MIL-C-39029/91 TWINAX/TRIAX RIGHT ANGLE SOCKET CONTACT**



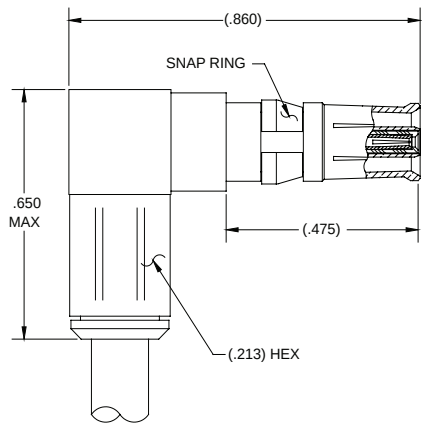
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019512-1013	Flexible Triax	540-1050-000
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▶ **SIZE 8 MIL-PRF-24308 TWINAX/TRIAX SOCKET CONTACT**



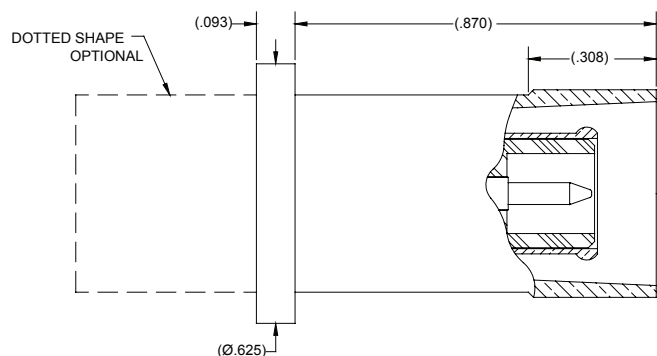
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019712-2004	Flexible Triax	540-1050-000
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▶ **SIZE 8 MIL-PRF-24308 TWINAX/TRIAX RIGHT ANGLE SOCKET CONTACT**



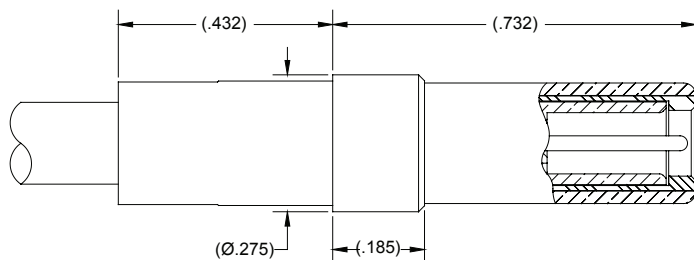
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019712-1013	Flexible Triax	540-1050-000
019712-1016	Flexible Triax	540-1081-000

SIZE 1 ARINC 600 TWINAX/TRIAX PIN CONTACT



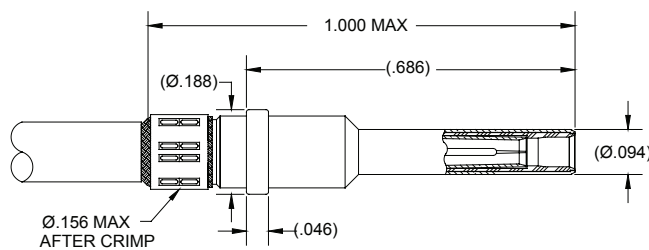
PART NUMBER	CABLE TYPE	CABLE
018012-2110	Flexible Twinax	M17/176-00002
018012-2111	Flexible Twinax	540-1086-000
018012-2112	Flexible Triax	RG-403
018012-2113	Flexible Triax	540-1050-000
018012-2114	Flexible Triax	540-1081-000

SIZE 5 ARINC 600 TWINAX/TRIAX PIN CONTACT



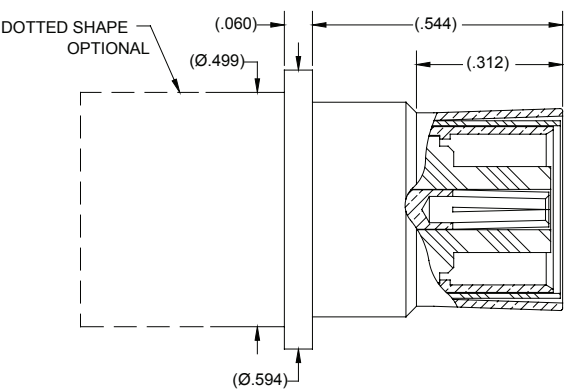
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019412-2110	Flexible Twinax	M17/176-00002
019412-2111	Flexible Twinax	540-1086-000
019412-2112	Flexible Triax	RG-403
019412-2113	Flexible Triax	540-1050-000
019412-2116	Flexible Triax	540-1081-000

SIZE 12 ARINC 600 TWINAX/TRIAX PIN CONTACT



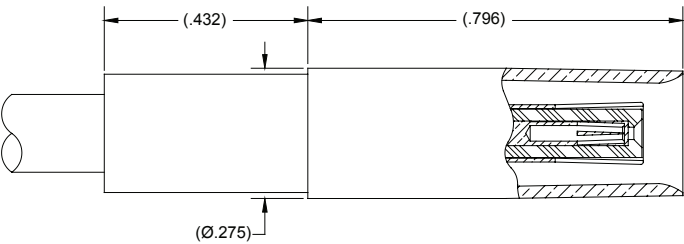
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SIZE 1 ARINC 600 TWINAX/TRIAX SOCKET CONTACT



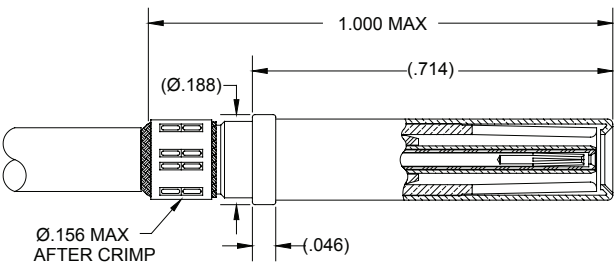
PART NUMBER	CABLE TYPE	CABLE
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018112-2111	Flexible Twinax	540-1086-000
018112-2112	Flexible Triax	RG-403
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SIZE 5 ARINC 600 TWINAX/TRIAX SOCKET CONTACT



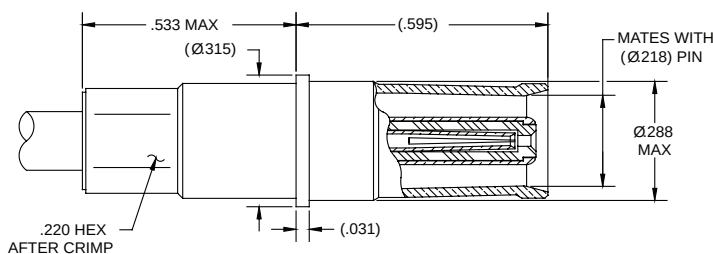
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019312-2112	Flexible Triax	RG-403
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SIZE 12 ARINC 600 TWINAX/TRIAX SOCKET CONTACT



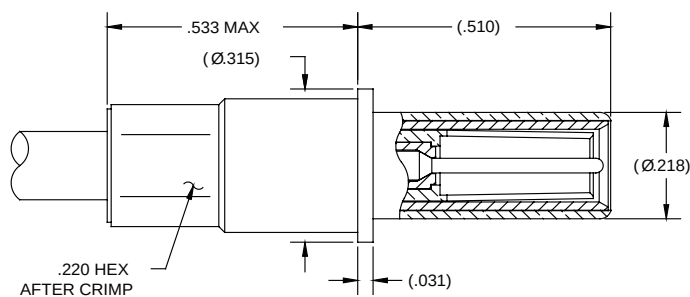
PART NUMBER	CABLE TYPE	CABLE
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► **SIZE 8 MIL-DTL-83527 TWINAX/TRIAX SOCKET CONTACT**



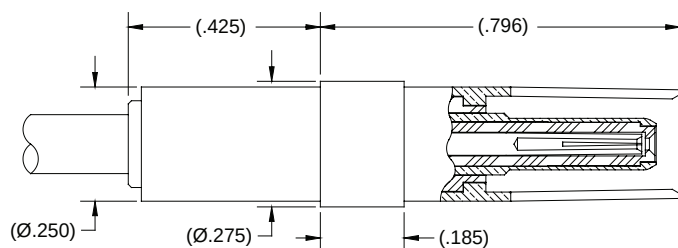
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019512-2123	Flexible Twinax	M17/176-00002
019512-2124	Flexible Twinax	540-1161-000
019512-2125	Flexible Twinax	540-1086-000

► **SIZE 8 MIL-DTL-83527 TWINAX/TRIAX PIN CONTACT**



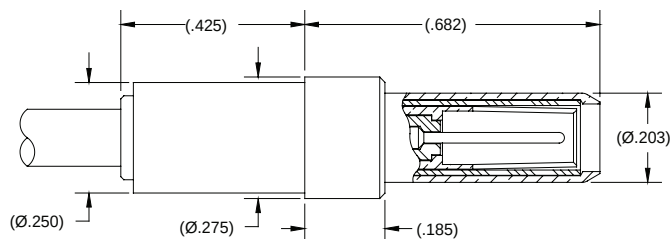
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019612-2125	Flexible Twinax	M17/176-00002
019612-2126	Flexible Twinax	540-1161-000
019612-2127	Flexible Twinax	540-1086-000

► **SIZE 9 ARINC 404 TWINAX/TRIAX SOCKET CONTACT**



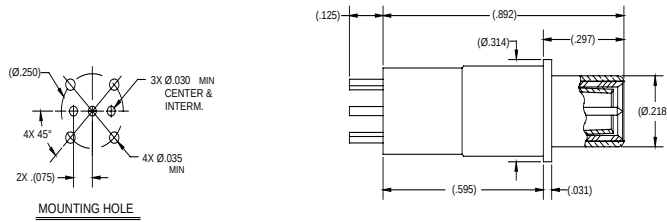
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019112-2002	Flexible Twinax	540-1086-000
019112-2003	Flexible Triax	RG-403
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► **SIZE 9 ARINC 404 TWINAX/TRIAX PIN CONTACT**



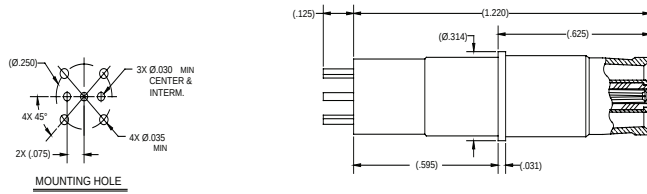
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► SIZE 8 MIL-C-39029/90 PC TAIL TWINAX/TRIAX PIN CONTACT



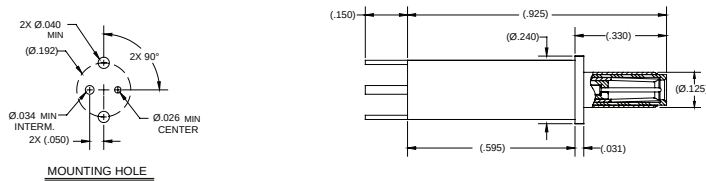
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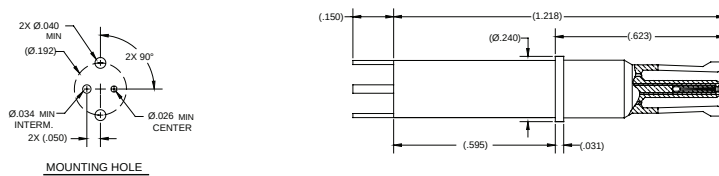
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► SIZE 10 MIL-DTL-38999 PC TAIL TWINAX/TRIAX PIN CONTACT



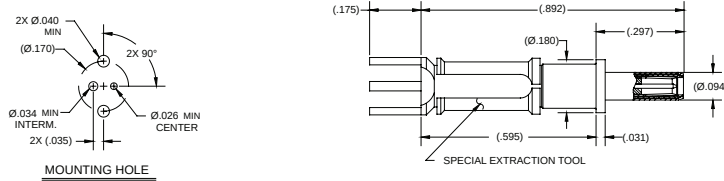
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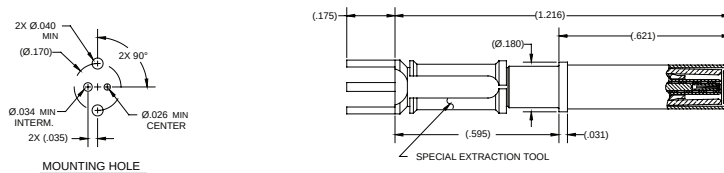
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► SIZE 12 MIL-DTL-38999 PC TAIL TWINAX/TRIAX PIN CONTACT



P/N 018617-2100

► SIZE 12 MIL-DTL-38999 PC TAIL TWINAX/TRIAX SOCKET CONTACT



P/N 018717-2100

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

HOW TO ORDER



1 ▶ CONNECTOR #1

2 ▶ CABLE GROUP #

Flexible Twinax

1 = M17/176-00002

2 = 540-1086-000

3 = 540-1161-000

Flexible Triax

21 = RG-403

22 = 540-1050-000

23 = 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 Connectors	98	0.143"	0.019"
3	540-1161-000	Smiths Connectors	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 Connectors	75	0.125"	0.012"
23	540-1081-000	Smiths Connectors	95	0.125"	0.008"



SMITHS CONNECTORS

GLOBAL SUPPORT

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