



APPLICATION FLEXIBILITY

- Available in various shell sizes: 9 (1Q1), 17 (2Q2), 19 (4Q4), 21 (4Q4) and 25 (8Q8)
- Accepts standard backshells

RUGGED

- Designed for use with wire seal boots for sealing and optimized alignment
- Front metal-shell design provides a full ground plane

SAVES WEIGHT

- Lightweight composite rear shell available in size 19

Quadrax Connectors



Custom 38999-Style Series III Connectors

TE Connectivity (TE) offers the highly versatile Quadrax multi-signal contact system consisting of two differential pairs (matched impedance) used with quadaxial Ethernet and Fiber Channel cables.*

Specifications

ELECTRICAL

- **Bandwidth:** Up to 3 GHz
- **Data Rate:** >2 Gb/s
- **Characteristic Impedance:** 100Ω (± 10Ω)
- **Maximum Voltage Rating:** 500 V_{rms} @ sea level
- **Dielectric Withstanding Voltage:** 1000 VAC_{rms} between any two contacts @ sea level
500 VAC_{rms} between any contact and outer shell @ sea level

MATERIALS

- **Contacts, Shells, Ferrules:** Copper alloy with gold over nickel finish
One-piece thermoplastic dielectric

MECHANICAL/ENVIRONMENTAL

- **Maximum Mating Force:** 2.75 lbf.
- **Minimum Unmating Force:** 1.25 lbf.
- **Durability:** 500 mating cycles

APPLICATIONS

- Commercial Avionics Systems
- Aircraft Data Networks
- Military Communications
- In-Flight Entertainment
- Space

STANDARDS AND TEST REPORTS

- **TE Product Specification:** 108-2199
- **TE Test Reports:** 501-660
- **Application Specifications:** 114-13163

*Metal ground plane only

The connectors in this section are unique for metal ground plane Quadrax applications and are only inter-mateable with connectors of the opposite gender in this catalog section.



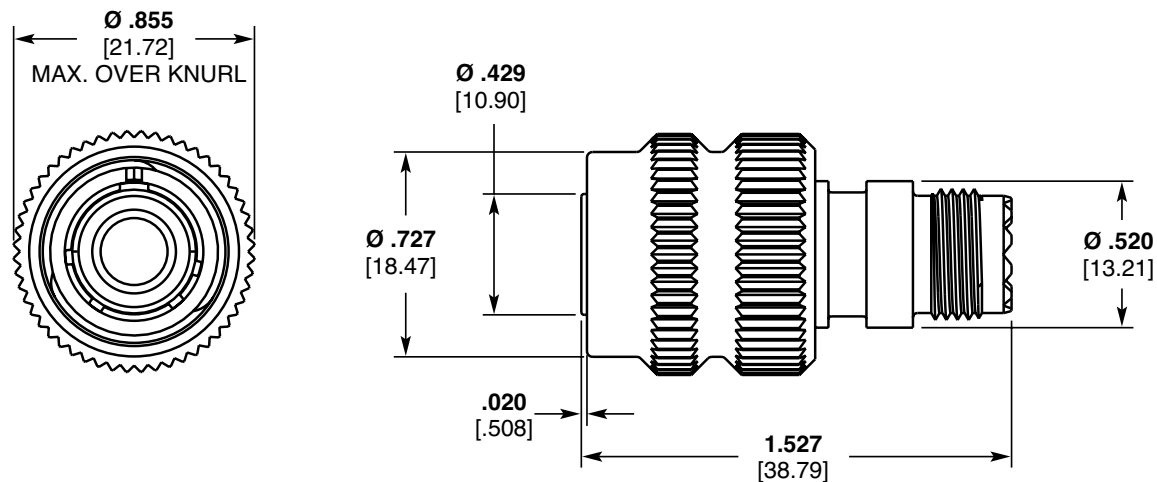
Custom 38999-Style Series III Quadrax Connectors

Shell Size	Part No.	Type	Description
9	1738916	Receptacle	1Q1, FR-FR, Jam Nut Style, with PC Tail Contacts
	1811184	Receptacle	1Q1, FR-FR, PCB Mount with Stand-offs and PC Tail Contacts
	2157694	Receptacle	1Q1, RR-RR, Jam Nut Style
	1877384	Plug	1Q1, RR-RR
17	1877774	Receptacle	2Q2, RR-RR
	2157455	Receptacle	2Q2, FR-FR, PCB Mount
	2157695	Receptacle	2Q2, RR-RR, Jam Nut Style
	1877775	Plug	2Q2, RR-RR
19	1738974	Receptacle	4Q4, FR-FR, without PC Tail Contacts
	1877732	Receptacle	4Q4, FR-FR, with PC Tail Contacts
	1811901	Receptacle	4Q4, RR-RR
	2157696	Receptacle	4Q4, RR-RR, Jam Nut Style
	1811902	Plug	4Q4, RR-RR
	2221849	Receptacle	4Q4, with Threaded Mounting Holes
21	1954355	Plug	4Q4, RR-RR
	1954353	Receptacle	4Q4, FR-FR, with PC Tail Contacts
	2101633	Receptacle	4Q4, RR-RR, Flange Mount
23	1877921	Plug	6Q6, RR-RR
	1954577	Receptacle	6Q6, RR-RR
	2221366	Receptacle	6Q6, FR-FR, with PC Tail Contacts
25	1811928	Plug	8Q8, RR-RR
	1811927	Receptacle	8Q8, RR-RR
	2157628	Receptacle	8Q8, RR-RR, Jam Nut Style
	2101395	Receptacle	8Q8, FR-FR, with PC Tail Contacts
	1996625	Receptacle	8Q8, FR-FR, PCB Mount with Stand-offs and PC Tail Contacts

See TE Customer Drawing for finish options

Custom 38999-Style Series III Quadrax Connectors

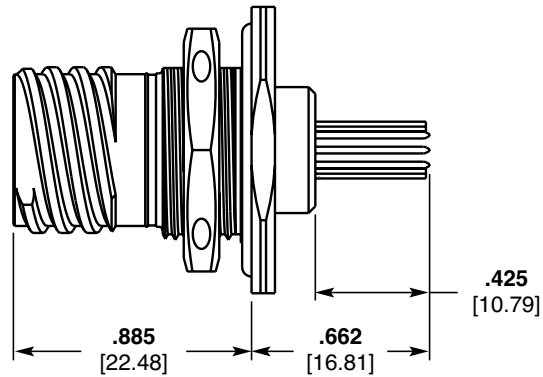
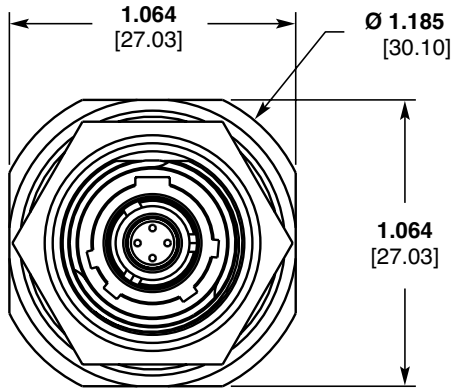
Plug, Shell Size 9 Single Quadrax, RR-RR
Part No. 1877384





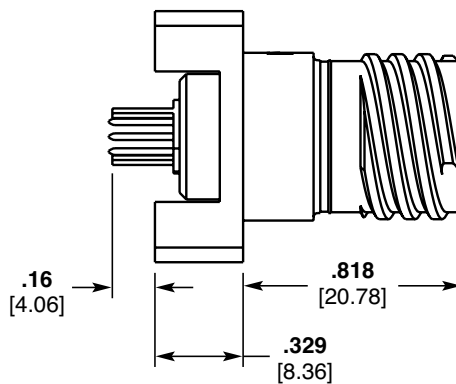
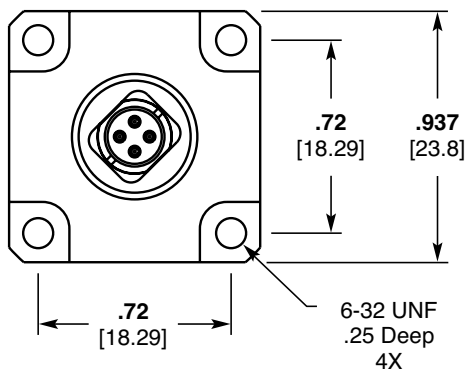
Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 9, 38999 Style Single Quadrax, FR-FR Jam Nut Style
Part No. 1738916

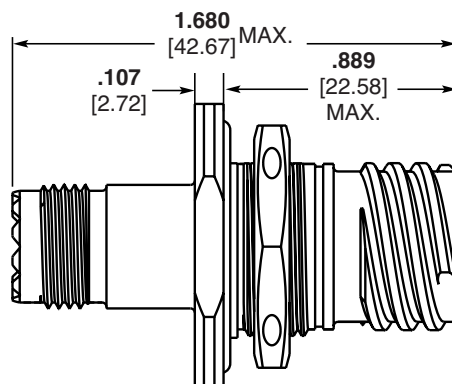
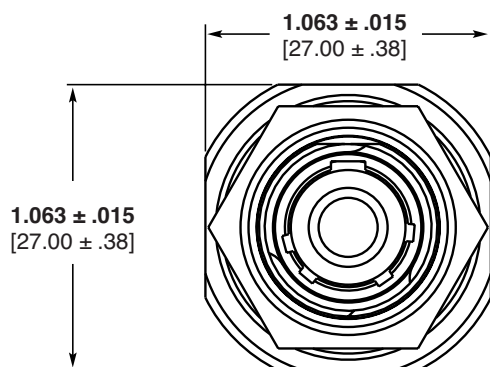


Contacts sold separately (unless noted)

Receptacle, Shell Size 9, Single Quadrax, FR-FRPCB Mount with Stand-offs
Part No. 1811184 (with PC tail contacts)



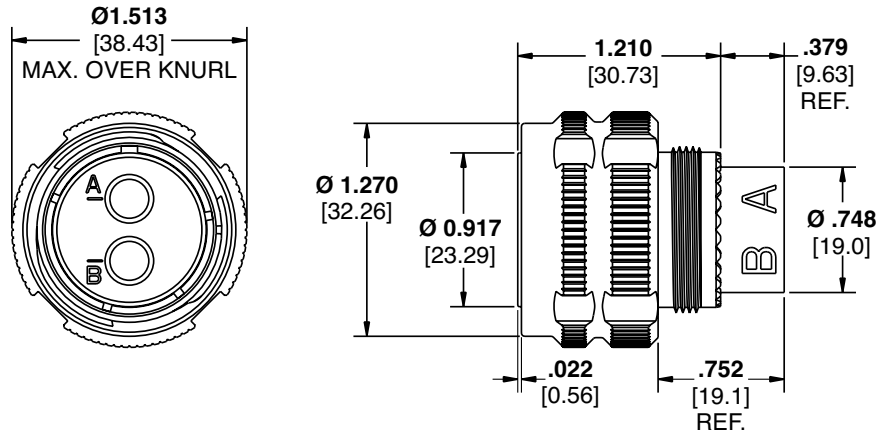
Receptacle, Shell Size 9, Single Quadrax, RR-RR Jam Nut Style
Part No. 2157694



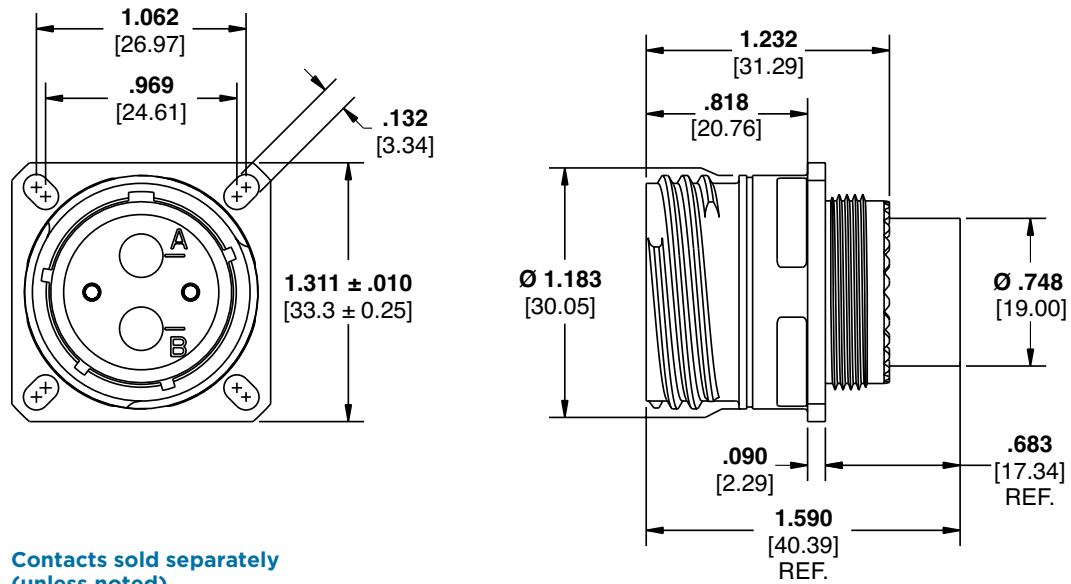


Custom 38999-Style Series III Quadrax Connectors

Plug, Shell Size 17, Arrangement 2Q2, RR-RR
Part No. 1877775



Receptacle, Shell Size 17, Arrangement 2Q2, RR-RR
Part No. 1877774

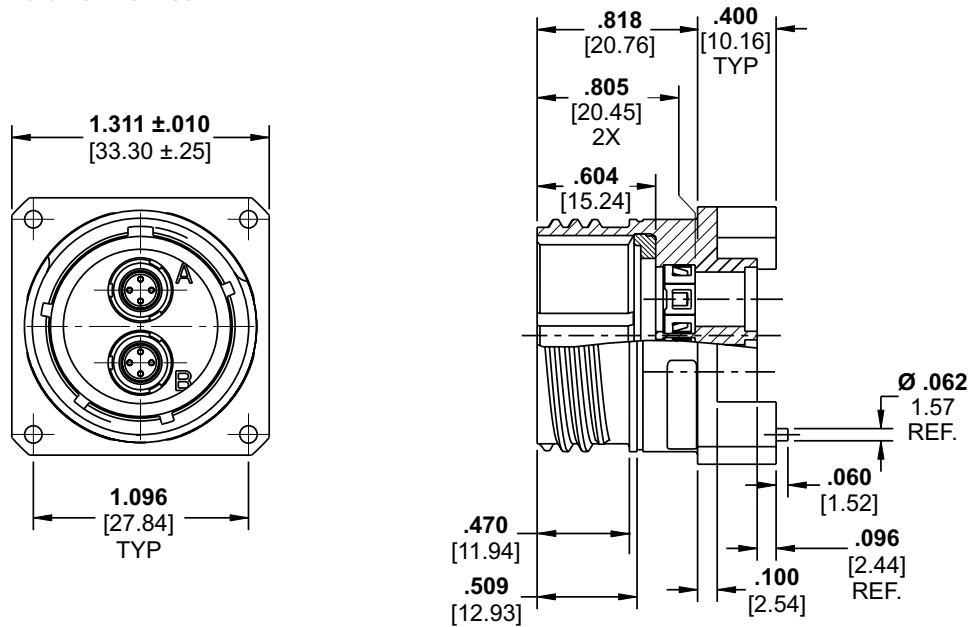


Contacts sold separately
(unless noted)

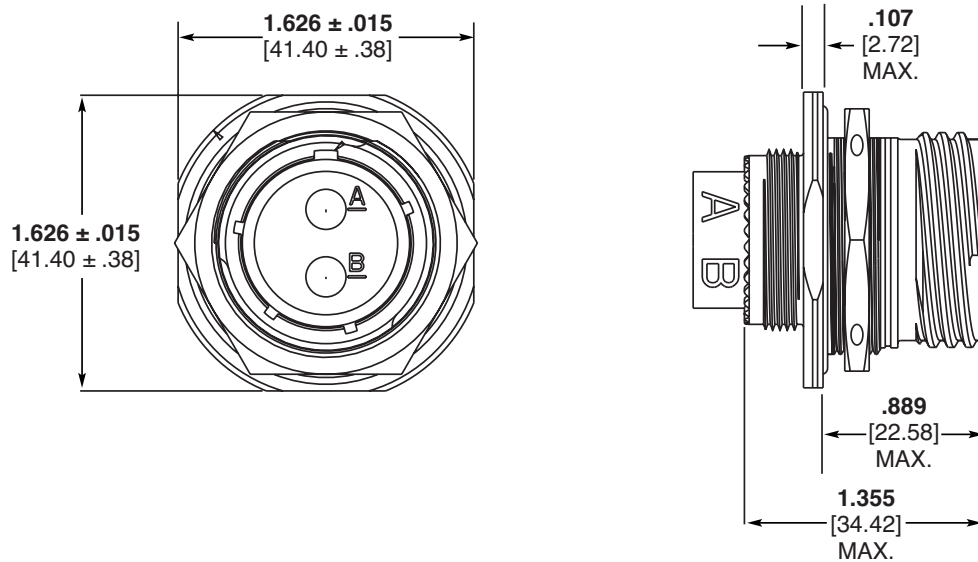


Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 17, Arrangement 2Q2, FR-FR
Part No. 2157455



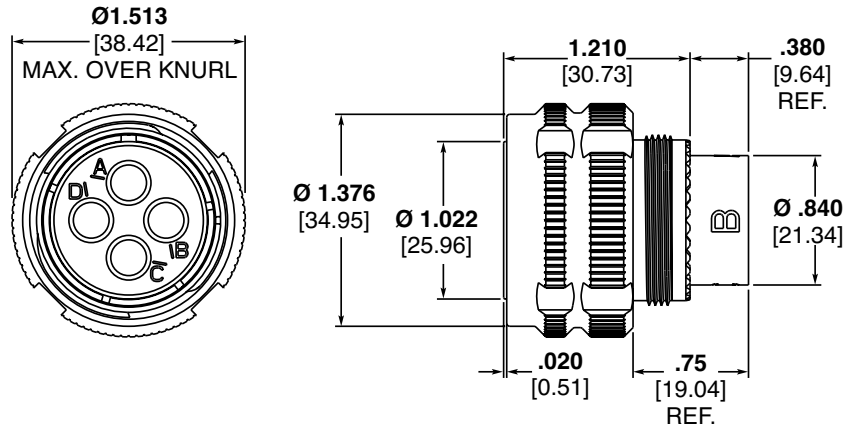
Receptacle, Shell Size 17, Arrangement 2Q2, RR-RRJam Nut Style
Part No. 2157695





Custom 38999-Style Series III Quadrax Connectors

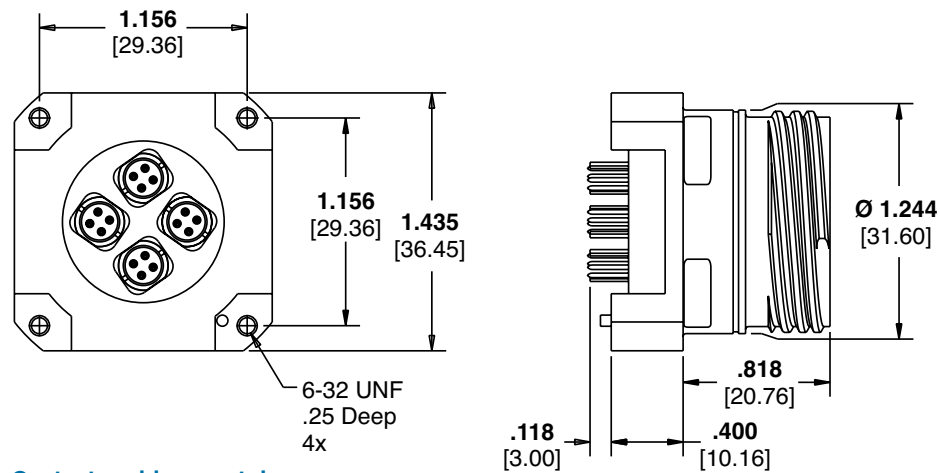
Plug, Shell Size 19, Arrangement 4Q4, RR-RR
Part No. 1811902



Receptacle, Shell Size 19, Arrangement 4Q4, RR-RR

Part No. 1877732
(w/ PC Tail Contacts)

Part No. 1738974
(connector only)

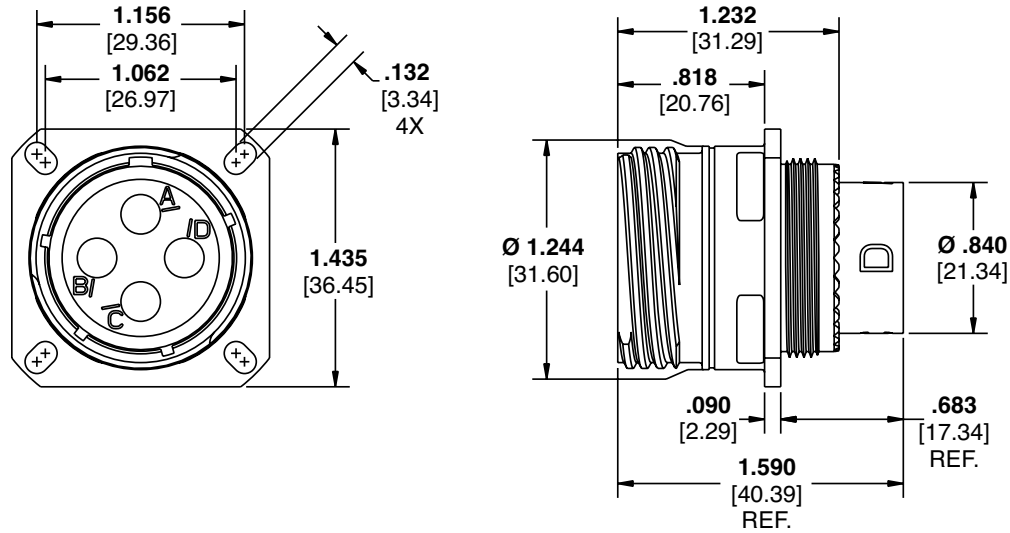


Contacts sold separately
(unless noted)

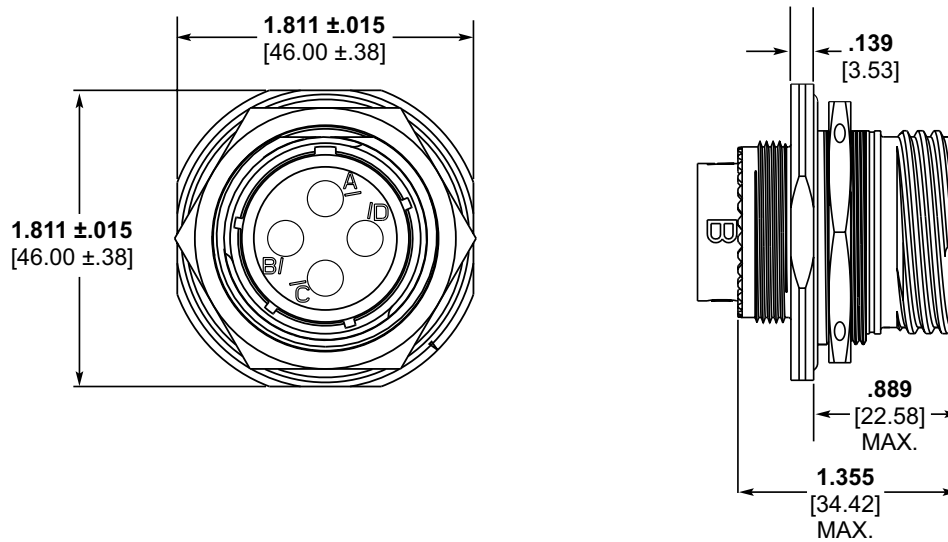


Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 19, Arrangement 4Q4, RR-RR
Part No. 1811901



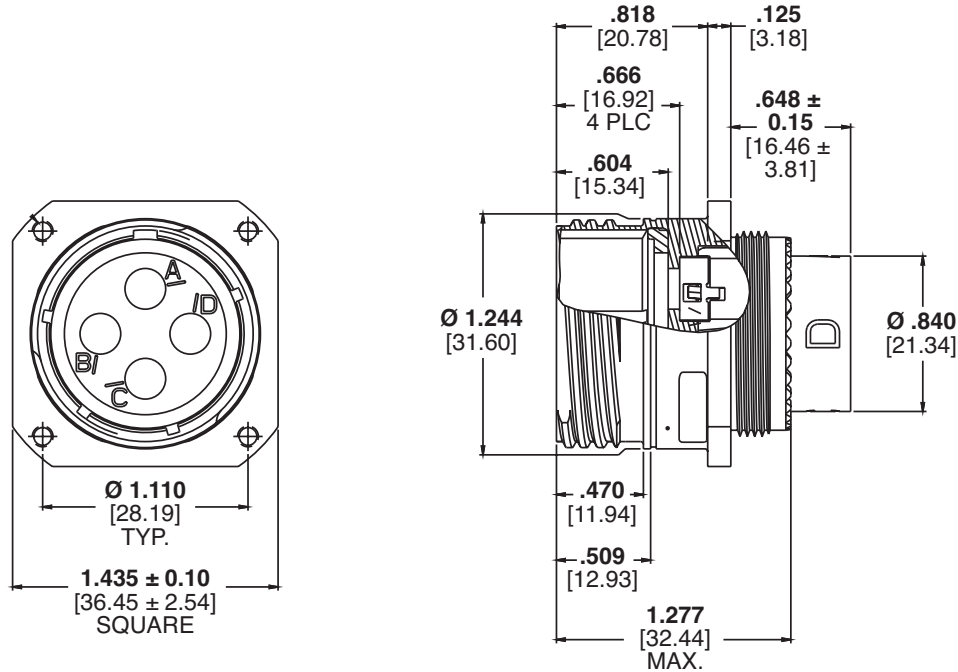
Receptacle, Shell Size 19, Arrangement 4Q4, RR-RR Jam Nut Style
Part No. 2157696



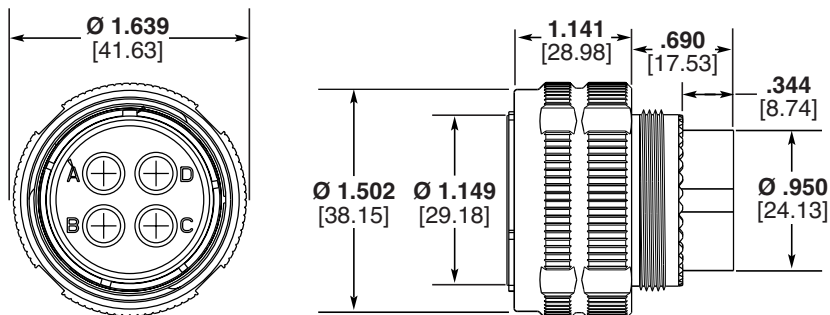


Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 19 Arrangement 4Q4, With Threaded Mounting Holes
Part No. 2221849



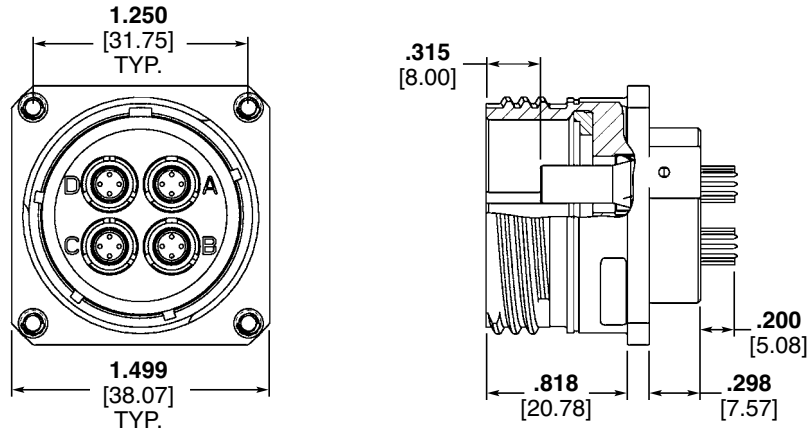
Plug, Shell Size 21, Arrangement 4Q4, FR-FR
Part No. 1954354



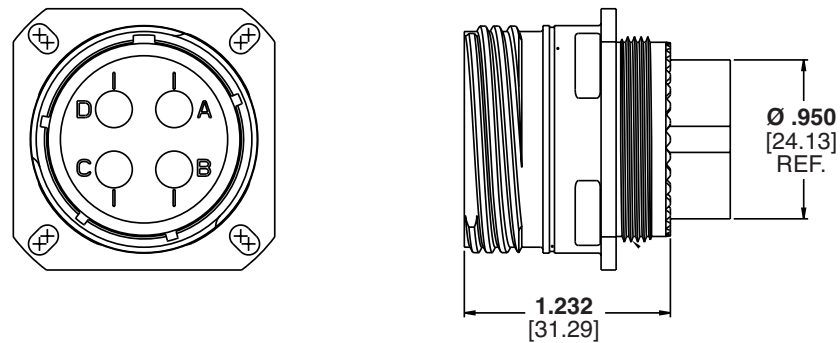


Custom 38999-Style Series III Quadrax Connectors

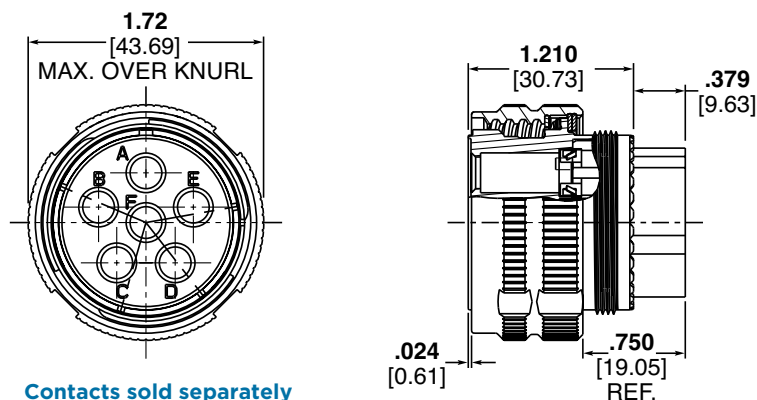
Receptacle, Shell Size 21, Arrangement 4Q4, FR-FR
Part No. 1954353



Receptacle, Shell Size 21 38999 Style Arrangement 4Q4, RR-RR Flange Mount
Part No. 2101633



Plug, Shell Size 23, Arrangement 6Q6
Part No. 1877921

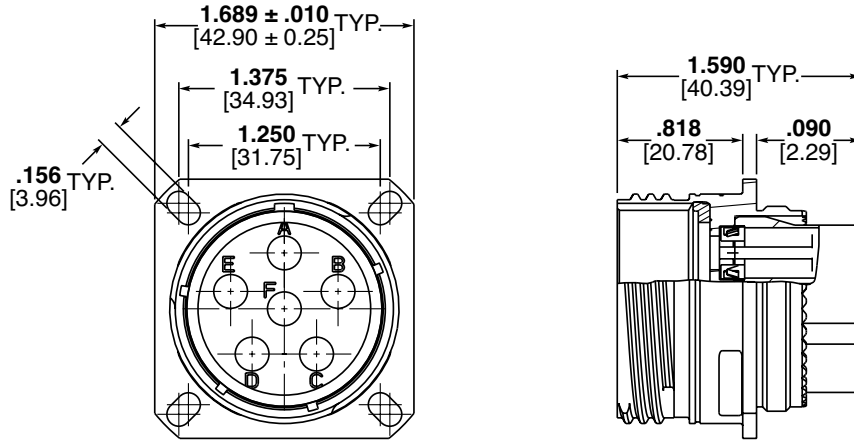


Contacts sold separately
(unless noted)

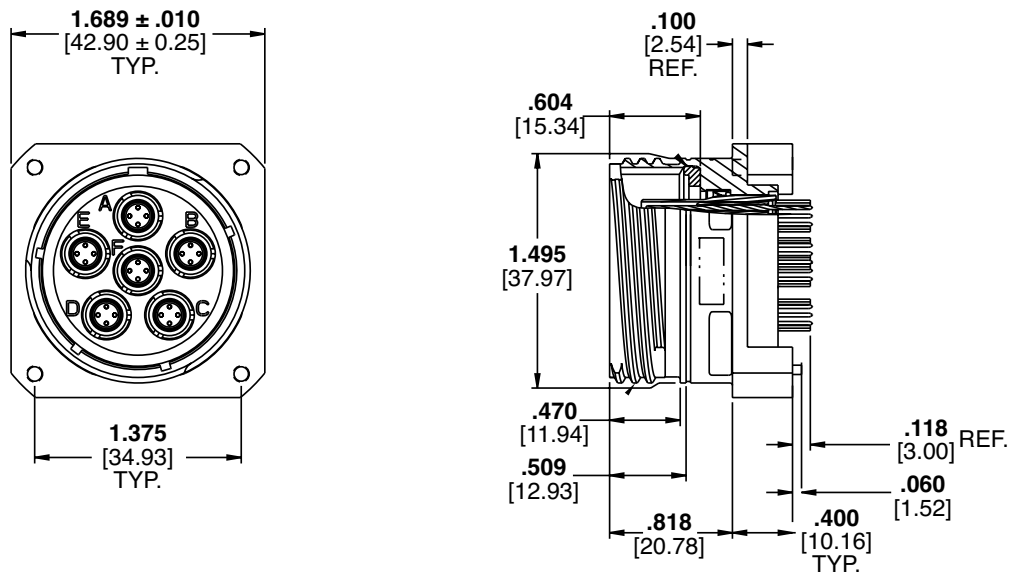


Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 23, Arrangement 6Q6,
Part No. 1954577



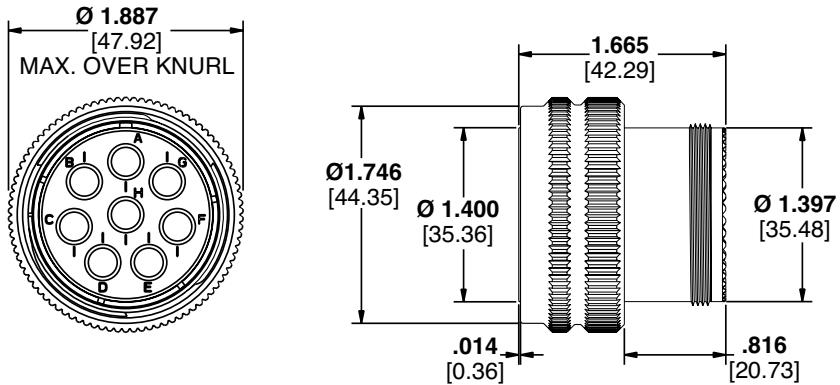
Receptacle, Shell Size 23 38999 Style, Arrangement 6Q6, PCB Mount
Part No. 2221366



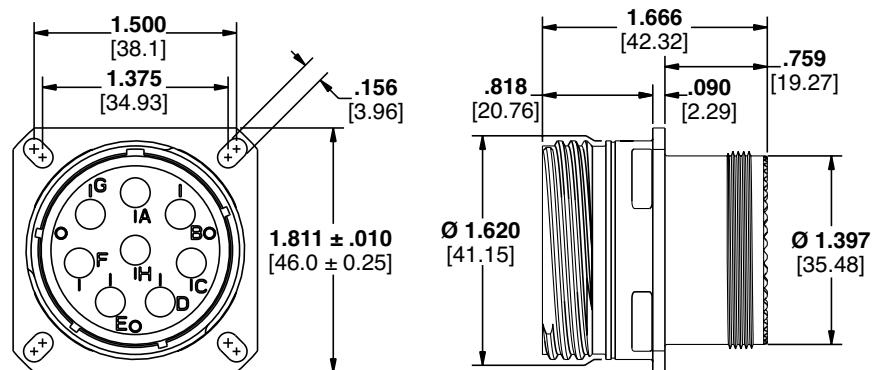


Custom 38999-Style Series III Quadrax Connectors

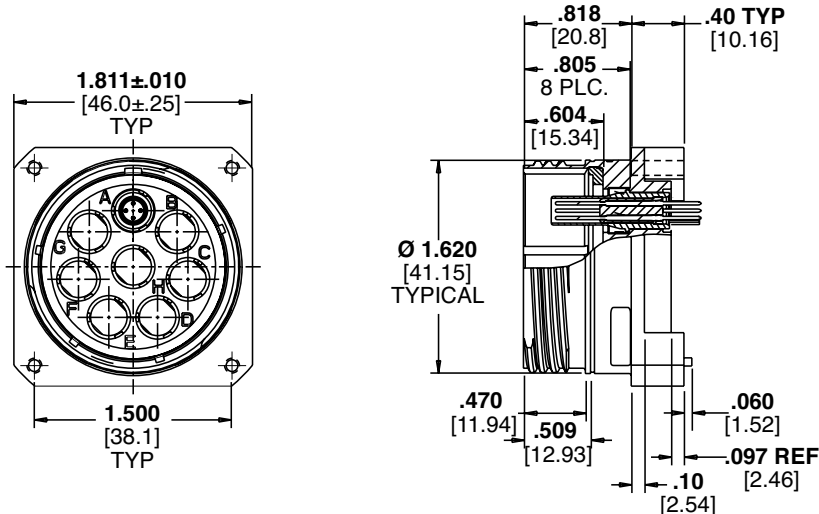
Plug, Shell Size 25, Arrangement 8Q8, RR-RR
Part No. 1811928



Receptacle, Shell Size 25 Arrangement 8Q8, RR-RR
Part No. 1811927



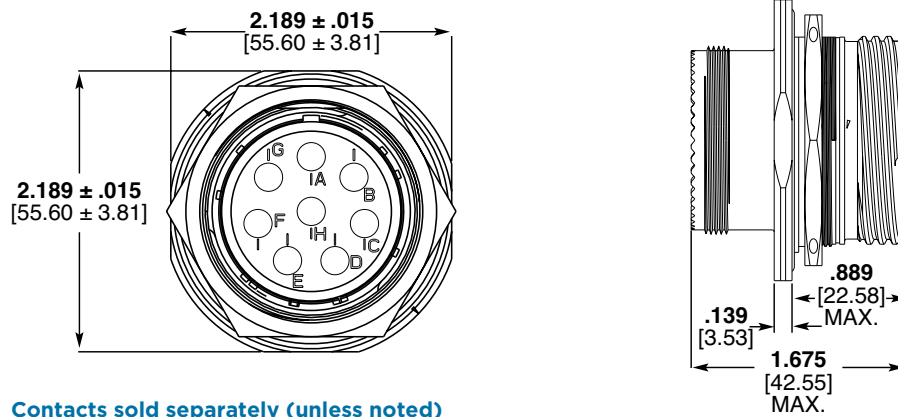
Receptacle, Shell Size 25 Arrangement 8Q8, FR-FR
Part No. 2101395 (w/ PC Tail Contacts)





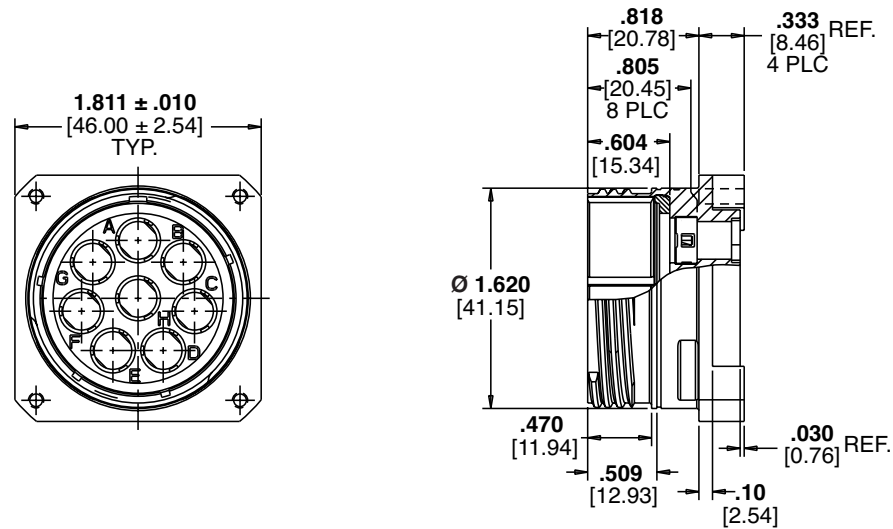
Custom 38999-Style Series III Quadrax Connectors

Receptacle, Shell Size 25 38999 Style, Arrangement 8Q8,RR-RR Jam Nut
Part No. 2157628



Contacts sold separately (unless noted)

Receptacle, Shell Size 25, Arrangement 8Q8, FR-FR
Part No. 1996625





FAST, EASY ASSEMBLY

- One-piece dielectric inserts for easy assembly and to help lower applied cost
- Crimp type, screw machined, 24 AWG contacts
- Quadrax size 8 shells are keyed per ARINC 600 for correct orientation
- Asymmetric standoff leg provides built-in keying for direct attach to PC board

HIGH PERFORMANCE

- TE's Quadrax contacts support 100 Ω GbE and 150 Ω Fibre Channel
- Available silicone seal boots are rated for 50,000 ft. altitude immersion

VERSATILE

- Compatible with a wide range of rectangular and circular connectors
- Cable-applied crimp contacts and PC tail contacts for board-mount soldering

Quadrax Contacts

PC Tail Contacts, Pin

Part No.	Dim A	Notes
1445626-1	5.79 .228	
1445626-2	10.72 .422	
1445626-3	4.60 .181	
1445626-4	7.54 .297	
1445626-5	7.54 .297	Solder Dipped Tails

Millimeters Inches

Crimp Contact Kits

Part No.		Hex Crimp	Wire Seal Boot
Pin	Socket		
1445692-1	1445693-1	5.54 .218	No
1445692-3	1445693-3	5.54 .218	Yes
1445692-4*	1445693-4*	—	Yes
Reference cables: NF24Q100, NF26Q100, 24443/03130X-4(LD), 24443/9P025X-4(LD); Raychem CEC-RWC-18687, Raychem CEC-RWC-18664			
1445692-5	1445693-5	5.54 .218	Yes
1445692-6	1445693-6	5.54 .218	No
Reference cables: F4703-3, F4704-4 (Insulation Diameter Is Larger)			
1877039-1	1877040-1	5.87 .231	No
1877039-2	1877040-2	5.87 .231	Yes
Reference cables: 26473/02006X-4(LD); Raychem CEC-RWC-18684, Raychem CEC-RWC-18680			

Millimeters Inches

* Qualified to Boeing BACC47GA1 (Pin) and BACC47GB1 (Socket)

Crimp Contacts with Heat-Shrink Tubing

Part No.		Hex Crimp
Pin	Socket	
1811269-1	1811010-1	5.54 .218

Millimeters Inches

Direct Attach PCB Contacts

Part No.	Impedance	Tail Length	Dim A
1954576-1	150 Ohms	3.18 .125	6.86 .270
1954576-2	100 Ohms	3.18 .125	6.86 .270
1954576-3	100 Ohms	5.21 .205	6.86 .270

Millimeters Inches

Differential Twinax Contacts

Part No.		Hex Crimp
Pin	Socket	
1811865-1	1811866-1	5.54 .218

Millimeters Inches



Quadrax Contacts

PC Tail Contacts

Part No.	Type	Dim A	Notes
187-0095-01	Pin	7.00 .276	ARINC 600, FAST
187-0095-06		8.10 .319	
187-0095-21		7.00 .276	
187-0095-26		8.10 .319	
187-0178-08	Pin	11.40 .449	FDBA 50, FAST
187-0121-01	Pin	6.35 .250	ARINC 600, FAST, FDBA
187-0121-08		7.45 .293	
187-0121-21		6.35 .250	
187-0121-26		7.45 .293	
187-0136-08	Socket	7.30 .287	ARINC 600, FAST, FDBA
187-0206-08	Pin	12.50 .492	MIL-DTL-38999 Series I, II, and III
187-0281-08	Pin	6.80 .268	983 Series (Arrangement 20-04)

Millimeters Inches

Crimp Contacts

Part No.	Type	Standard	Notes
187-0205-08A*	Socket	EN3155-075F	DMC-M
187-0204-08A*	Pin	EN3155-074M	DMC-M
187-0109-08	Socket	ABS 0974	ARINC 600, FAST, FDBA, 983 Series
187-0108-08	Pin	ABS 0973	ARINC 600, FAST, FDBA, 983 Series
187-0110-08	Pin	GSC-01-31869-00**	—
187-0191-08	Socket	HDDS 105 Specific	ARINC 600, FAST

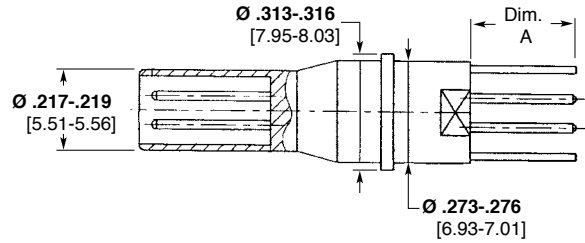
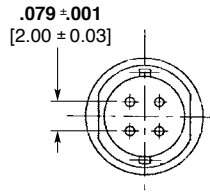
*"A" suffix indicates sealing sleeve

** Gore cable specific

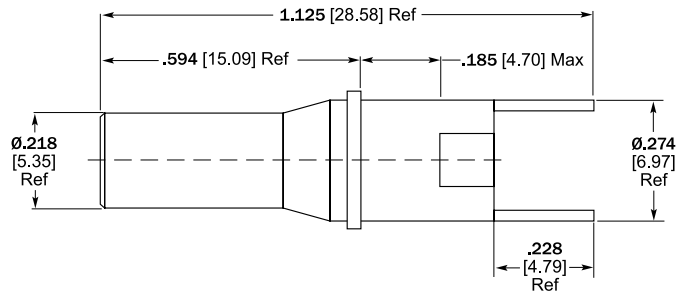
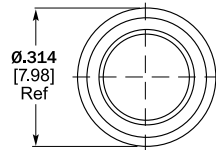


Quadrax Contacts (continued)

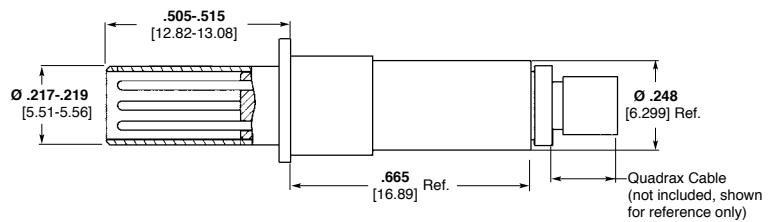
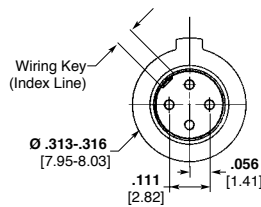
**Size 8 Quadrax
PCB Pin Contact
Front Release/
Front Remove Design
Part No. 1445626-1**
** various tail lengths**



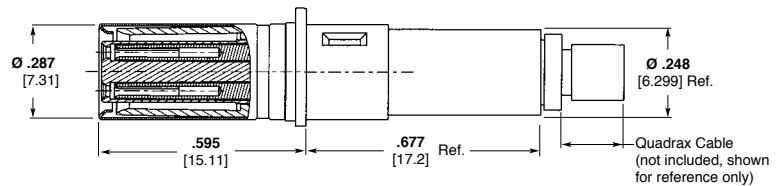
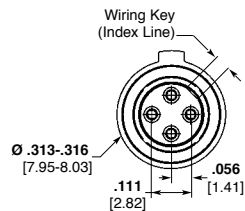
**Blank
Front Release/
Front Remove Design
Part No. 1604940-2**



**Size 8 Quadrax
Pin Contact –
Crimp Style
Rear Release/
Rear Remove Design
Part No. 1445692-1*
* -3 with boot**

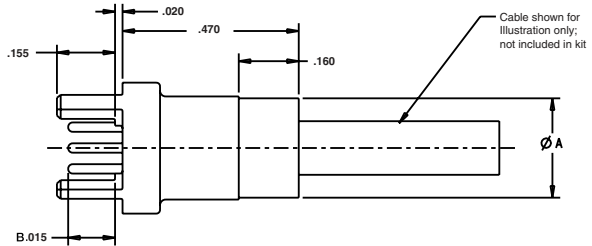
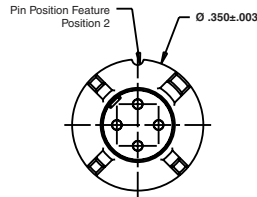


**Size 8 Quadrax
Socket Contact –
Crimp Style
Rear Release/
Rear Remove Design
Part No. 1445693-1*
* -3 with boot**





Quadrax Contacts (continued)



PC Tail Contact - Direct Attach to PCB

- 100 and 150 ohm Systems
- Simple Direct Attach to PCB without connector for component reduction
- Designed from ARINC size 8 Quadrax contacts
- Low cost solution from both assembly and component ends

Part Number 1954576-1, -2: B = .125
Part Number 1954576-3: B = .205

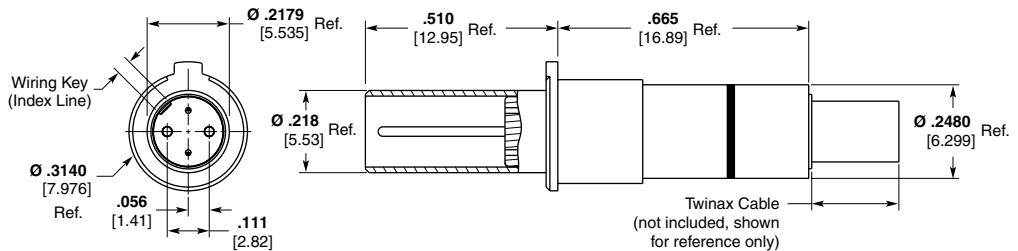
Part No.	Impedance (Ω)	Dim A (Max)	Dim B
1954576-1	150	6.86 [.270]	3.18 [.125]
1954576-2	100	6.35 [.250]	3.18 [.125]
1954576-3	100	6.35 [.250]	5.21 [.205]

Millimeters [Inches]

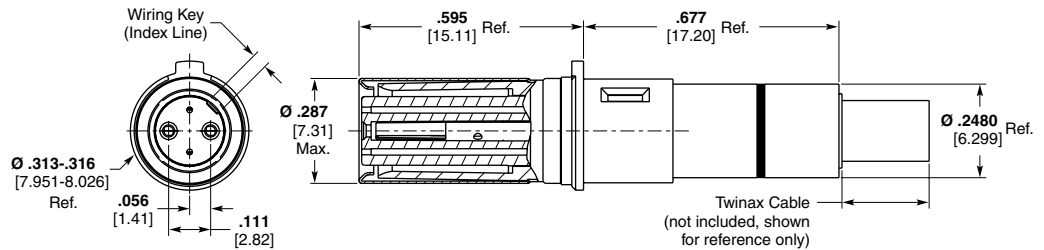
Size 8 Differential Twinax Contacts

100 Ohm Differential Pair Twinax Contact

- Designed to help meet the requirements of ARINC Specification 810 for 100 ohm size 8 non-concentric twin-axial contacts
- Works in all connectors accepting ARINC 600 style Quadrax contacts



Part No. 1811865-1

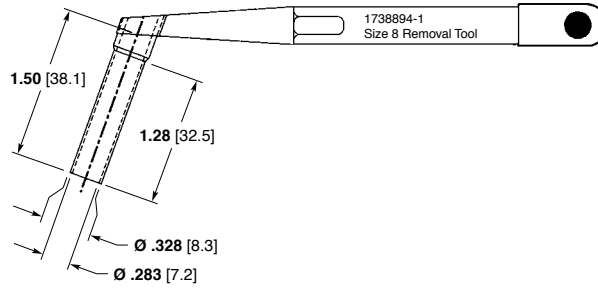


Part No. 1811866-1

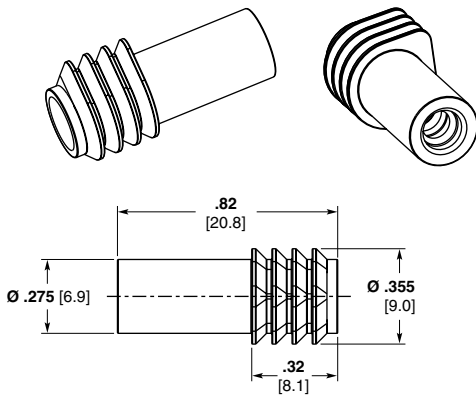


Quadrax/Twinax Contact Accessories

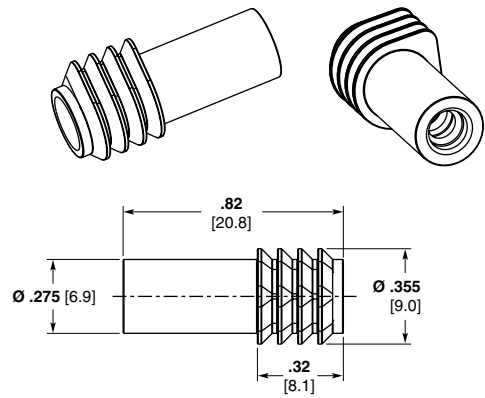
Size 8 Quadrax Extraction Tool Part No. 1738894-1



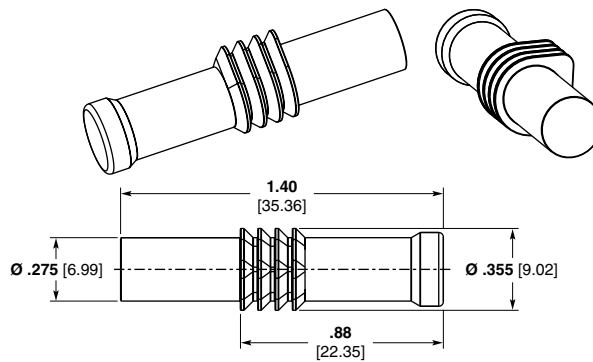
Seal Boots



Wire Seal Boot
Part No. 1811481-1
Cable O.D. .145-.175
.218 Hex Crimp



Wire Seal Boot
Part No. 1811943-1
Cable O.D. .170-.200
.231 Hex Crimp



Solid Seal Boot
Part No. 1811633-1



RUGGED

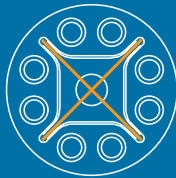
- MIL-DTL-32546 style
- Zero bit error rate
- Proven AS39029 crimp contacts
- Uses 38999-style shell

FAST AND QUIET

- 1 G or 10 GbE data delivery
- Excellent impedance matching and minimal crosstalk
- Size 25 shell supports up to four Ethernet channels

HIGH PERFORMANCE

- Designed for use in rugged environments
- Ideal choice for 10G Ethernet, IEEE 1394, USB 2.0 and other high-speed protocols
- Optimized shielding arrangement for superior signal integrity



CONVENIENT

- Fast field assembly, termination, and repair
- Available with aluminum or composite shells with a variety of finishes
- Install/repair using standard insertion/removal and crimping tools
- Range of inserts available for Size 25 shell for other connectivity needs

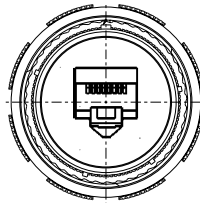
CeeLok FAS-X Connectors



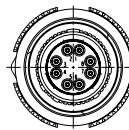
The High-Performance, Rugged Solution for High-Speed Networks

CeeLok FAS-X connectors with AS39029 contacts were designed for rugged environments and help to provide reliable, consistent high-speed performance.

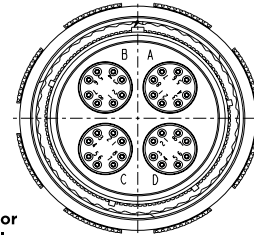
RJ45 connectors in 38999 shells are much larger than the CeeLok FAS-X connector (shell size 19 versus shell size 11). Additionally, the insulation displacement crimp technology may be unsuitable for use in certain harsh environments for which the M39029 crimp contacts used in the CeeLok FAS-X connector were intentionally designed.



RJ45
One Ethernet Channel
 Size 19 Shell
 38.35 mm [1.51"] Dia.



CeeLok FAS-X Connector
One Ethernet Channel
 Size 11 Shell
 24.89 mm [0.98"] Dia.



CeeLok FAS-X Connector
Four Ethernet Channels
 (Equivalent to four RJ45s)
 Size 25 Shell
 47.75 mm [1.88"] Dia.



CeeLok FAS-X Connectors

Performance Characteristics

APPLICATIONS

- Military and Aerospace High-Speed Networking
- Gigabit Ethernet and 10G Ethernet Networks
- IEEE 1394b I/O
- Fibre Channel Networks
- Modular 38999

MECHANICAL/ENVIRONMENTAL

- **Temperature Rating:** -65°C to +200°C
- **Mating Cycles (Min.):** 500
- **Plug Diameter:** 0.984" and 1.889" (24.99 mm and 47.98 mm)
- **Sealing IP Rating:** IP67
- **Sealing Altitude Immersion:** 50,000'

ELECTRICAL DATA

- **Dielectric Withstanding Voltage:** 1300 VAC
- **Contact Current Rating (Amps/Contact):** 5

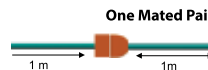
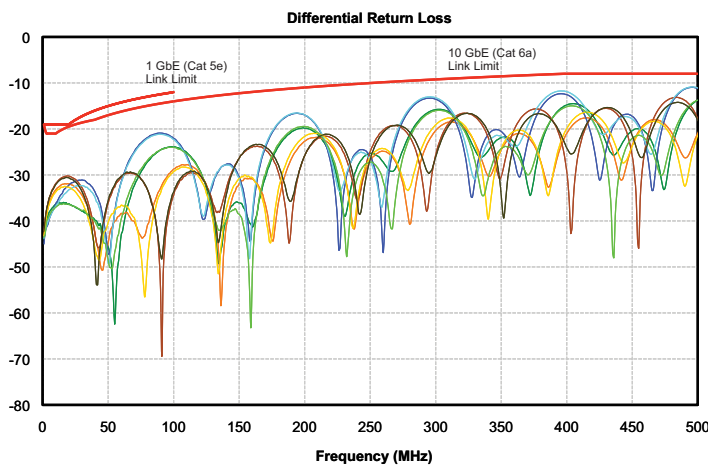
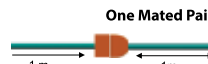
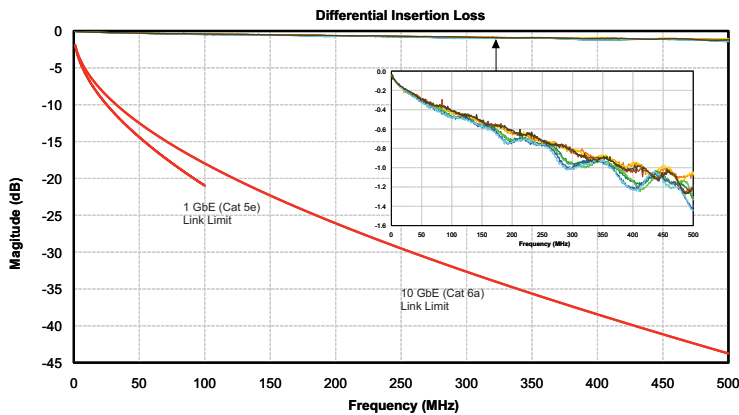
MATERIALS

- **Shells:** Aluminum or composite, nickel plated
- **Contact Finish:** Gold

STANDARDS AND TEST REPORTS

- **TE Qualification Test Reports:** 10065 and 20101203

Excellent Signal Integrity at Gigabit Rates



Excellent Impedance Matching

CeeLok FAS-X connectors are designed to maintain a highly matched 100-ohm impedance, with excellent signal integrity.

More High-Frequency Headroom

The design and close impedance matching of the CeeLok FAS-X connector helps give you more performance margin to tolerate noisy environments that are sensitive to harmful interference.

Zero Bit Error Rate (BER) under Rugged Testing

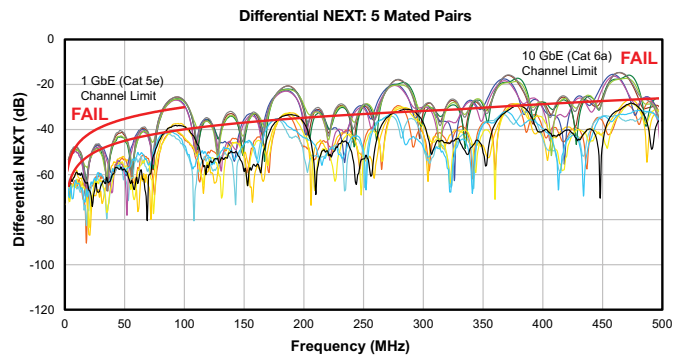
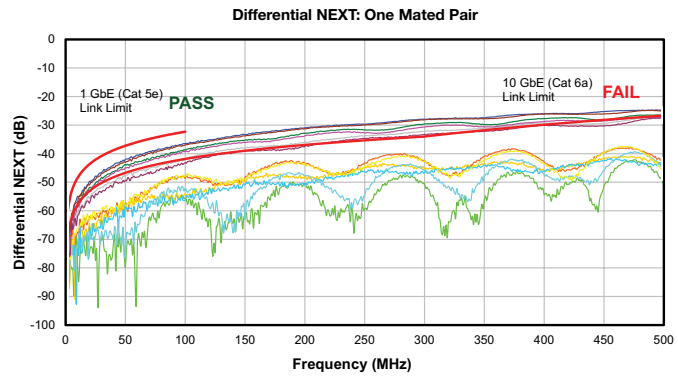
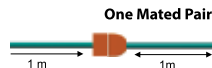
The CeeLok FAS-X connector was tested by TE for bit errors for a high speed signal (1.0625 Gb/s) while simultaneously being subjected to random vibration and temperature cycling between -65°C and +200°C. No bit errors were detected.

For more information, request Test Reports 10065 and 20101203 from TE.

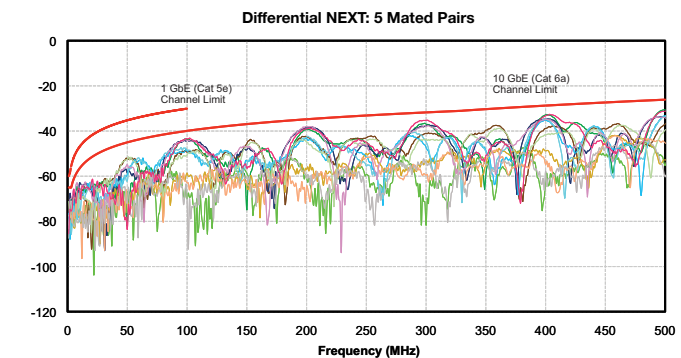
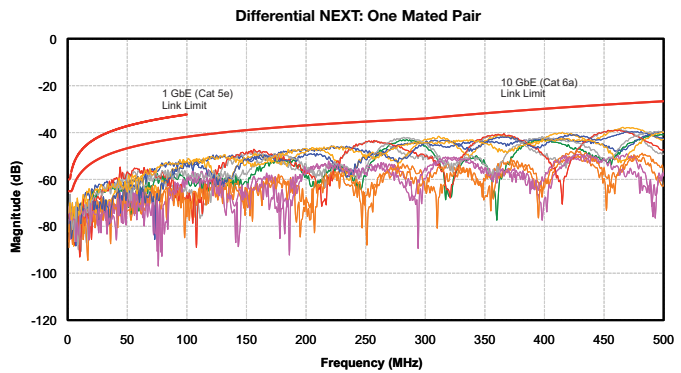
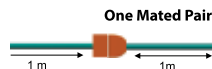


Differential NEXT

D38999 Size 11 Connector MOD Def Standard 23-04 Pinout



CeeLok FAS-X Connector





Mil Connectors

ORDERING INFORMATION

Part Numbering System

CFX20 **J** **2532** **P** **Z** **N** **xxx**

GENERAL IDENTIFIER

- CFX20** Square Flange Receptacle (38999)
- CFX21** In-Line Receptacle (38999)
- CFX24** Jam Nut Receptacle (38999)
- CFX26** EMI/RFI Plug (38999)
- CFX30** Square Flange Receptacle (Braid Clamp Backshell)
- CFX34** Jam Nut Receptacle (Braid Clamp Backshell)
- CFX36** EMI/RFI Plug (Braid Clamp Backshell)
- CFX50** Square Flange Receptacle (Push-Pull Lanyard) (81703)
- CFX54** Jam Nut Receptacle (Push-Pull Lanyard) (81703)
- CFX58** Plug (Push-Pull Lanyard) (81703)
- CFX59** Rack-and-Panel Plug (Push-Pull Lanyard) (81703)

CLASS (MATERIAL AND FINISH)

- M** Nickel-Plated Composite
- J** O. D. Cadmium-Plated Composite
- F** Nickel-Plated Aluminum
- W** O. D. Cadmium-Plated Aluminum
- A** Passivated Stainless Steel
- T** PTFE Nickel-Plated Aluminum
- Z** Black Zinc Nickel-Plated Aluminum

SHELL SIZE AND CONTACT ARRANGEMENT

- 1108** Single-Channel, Shell Size 11, 8 Size 22 Contacts
- 2532** Quad-Channel, Shell Size 25, 32 Size 22 Contacts
- 1104** Single-Channel Fibre Channel, Shell Size 11
- 2516** Quad-Channel Fibre Channel, Shell Size 25
- 2500** Quad-Channel, Shell Size 25, No Inserts or Contacts

CONTACT TYPE AND PLATING

- P** Pin, Selective Gold Plating
- S** Socket, Selective Gold Plating
- F** Pin, Full Gold Plating
- G** Socket, Full Gold Plating
- H** Pin, High-Reliability Finish
- J** Socket, High-Reliability Finish
- A** No Pin Contacts Included
- B** No Socket Contacts Included

TERMINATION TYPE

- Z** Crimp
- A** .232" Long Solder Tail (Contact TE for other tail lengths)

KEYING POSITIONS

- N, A, B, C, D, E** (N is normal)

MODIFICATIONS

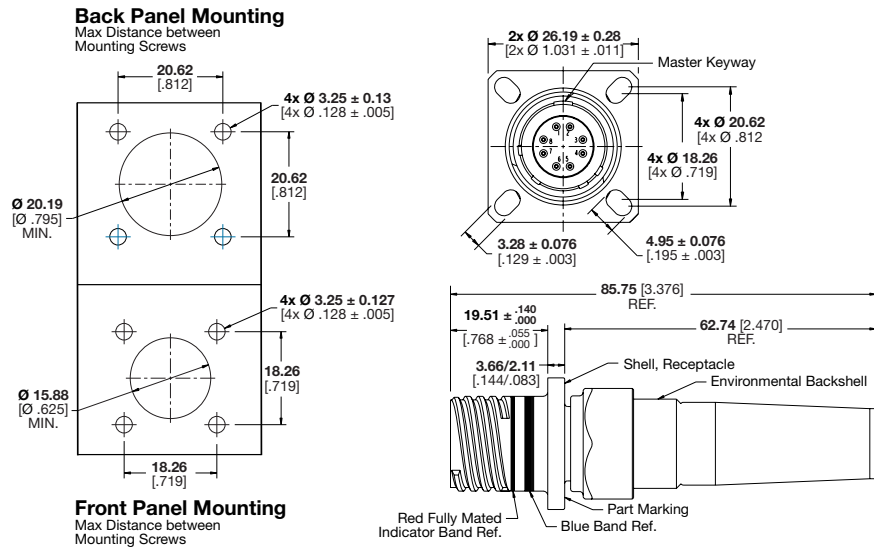
- 1A** Without Backshell
- 1077** Without Grommet



Single-Channel D38999 Circular, Shell Size 11

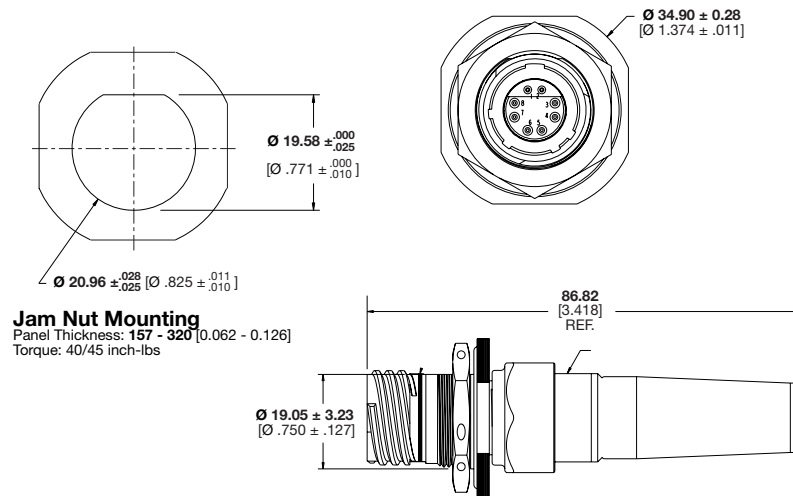
Square Flange Receptacle

CFX20*1108***



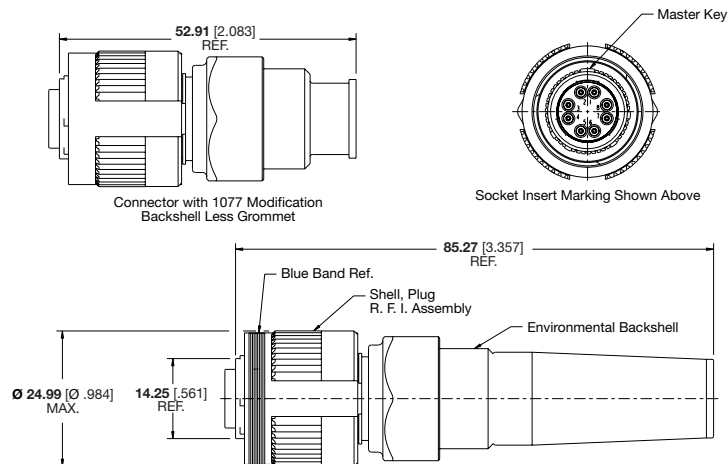
Jam Nut Receptacle

CFX24*1108***



Plug

CFX26*1108***

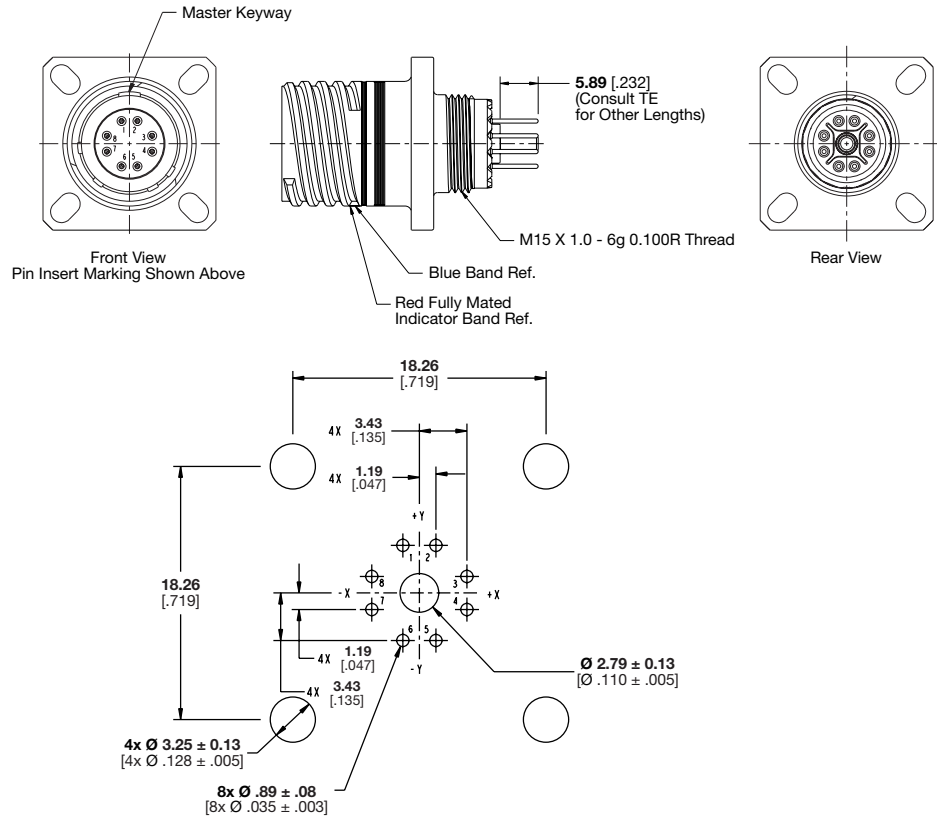




Single-Channel D38999 Circular, Shell Size 11, PCB Mount

Square Flange Receptacle

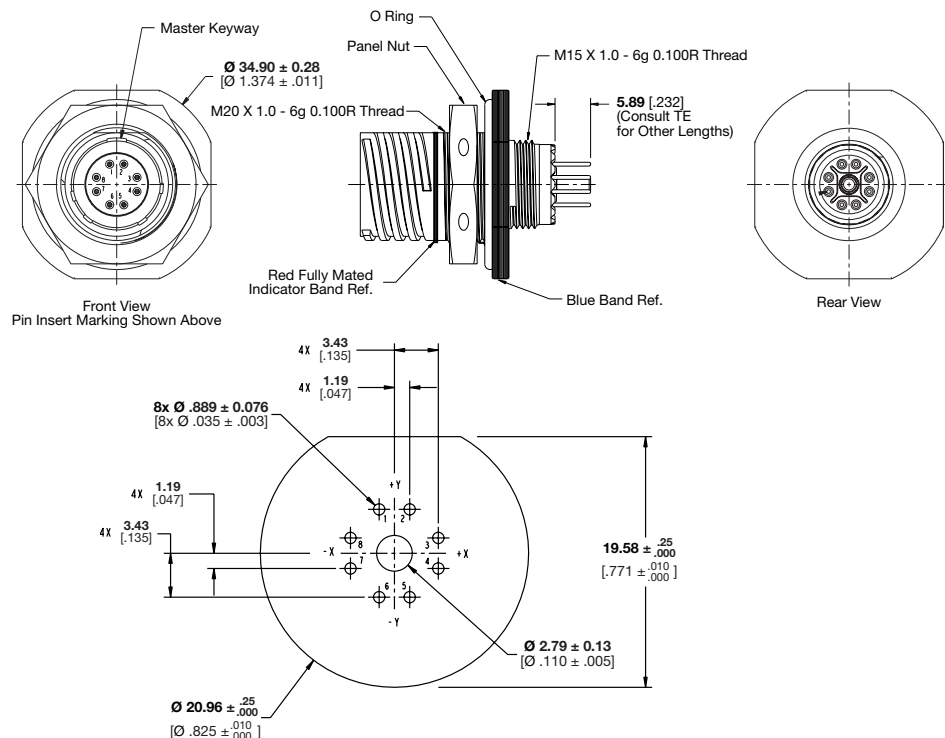
CFX20*1108***



Single-Channel D38999 Circular, Shell Size 11, PCB Mount

Jam Nut Receptacle

CFX24*1108***

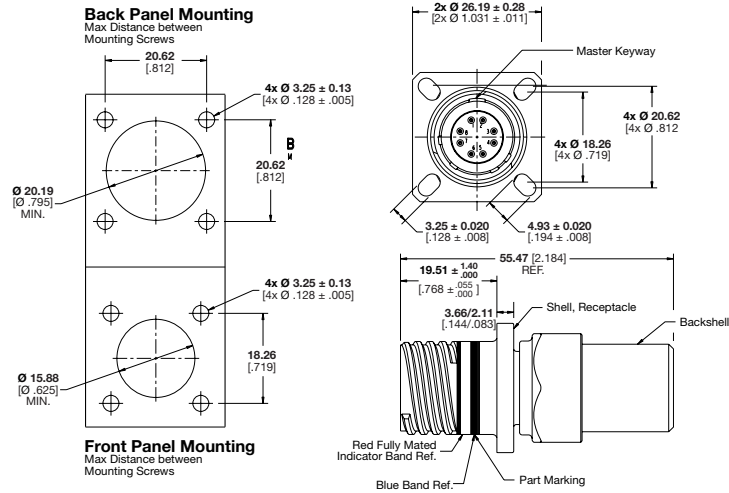




Commercial Single-Channel Circular, Shell Size 11

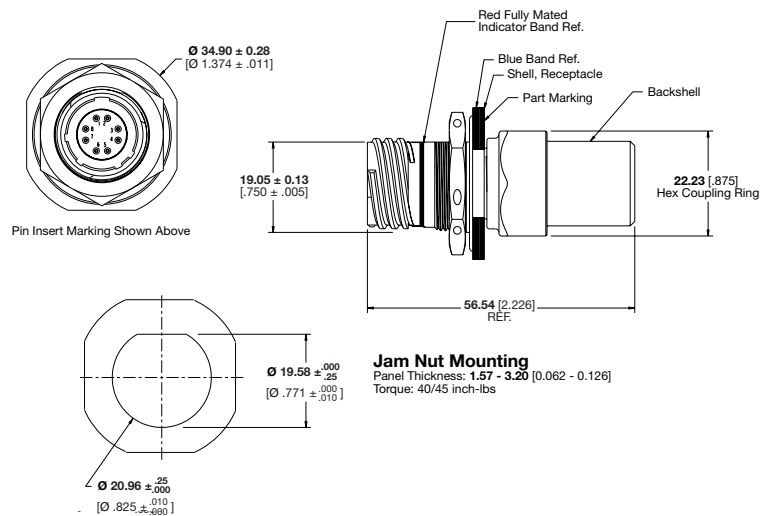
Square Flange Receptacle with Braid Clamp Backshell

CFX30*1108***



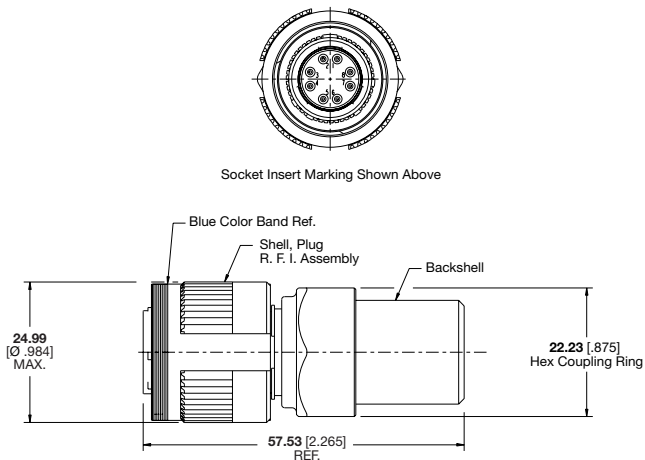
Jam Nut Receptacle with Braid Clamp Backshell

CFX34*1108***



EMI/RFI Plug with Braid Clamp Backshell

CFX36*1108***

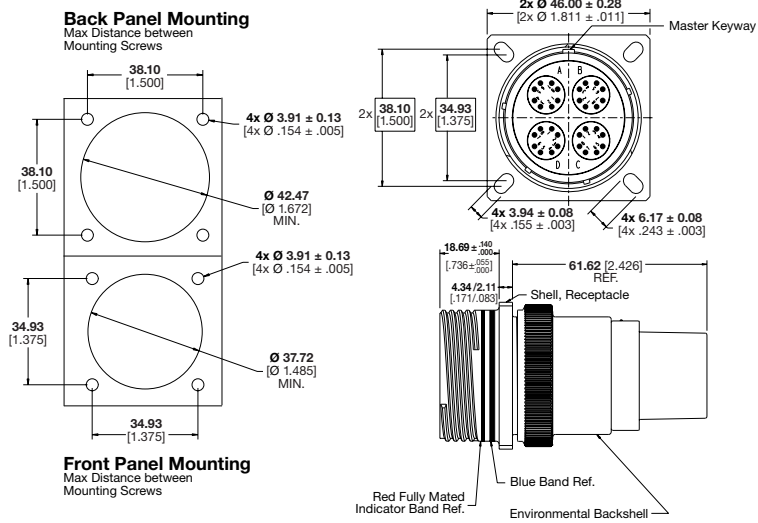




Quad-Channel D38999 Circular, Shell Size 25

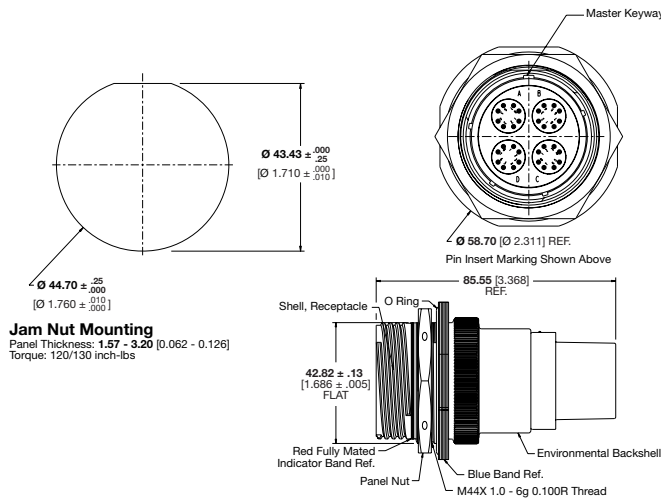
Square Flange Receptacle

CFX20*2532***



Jam Nut Receptacle

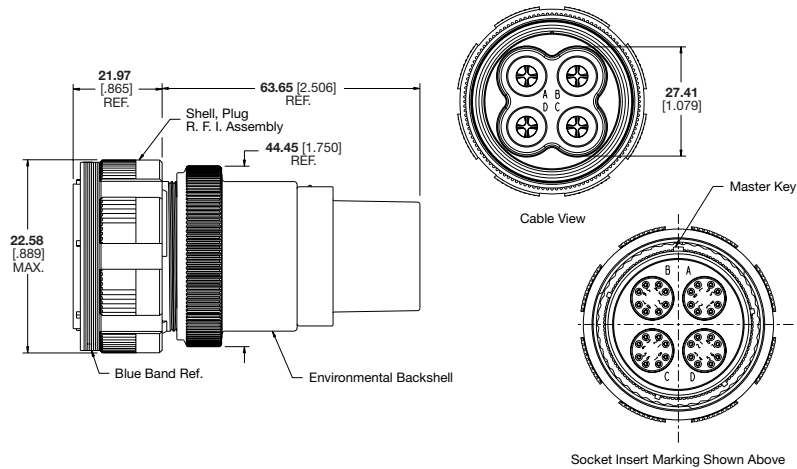
CFX24*2532***



Jam Nut Mounting
Panel Thickness: 1.57 - 3.20 [0.062 - 0.126]
Torque: 120/130 inch-lbs

Plug

CFX26*2532***

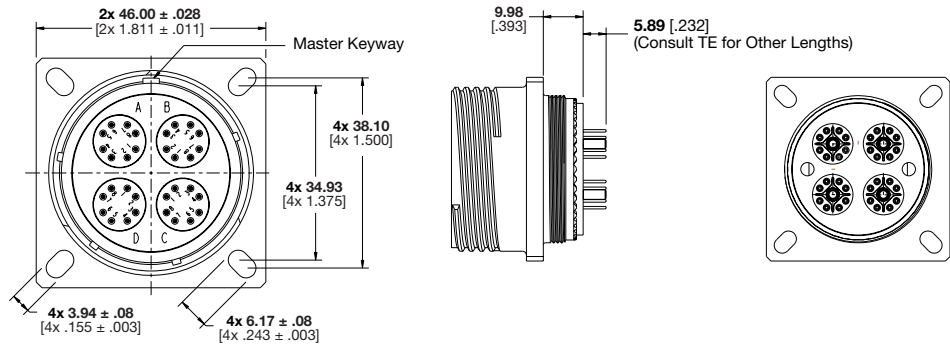




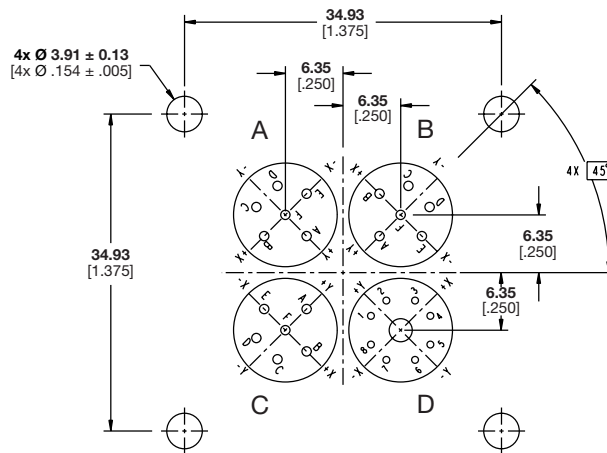
Quad-Channel D38999 Circular, Shell Size 25

Square Flange Receptacle

CFX20*2532***



PCB Layout

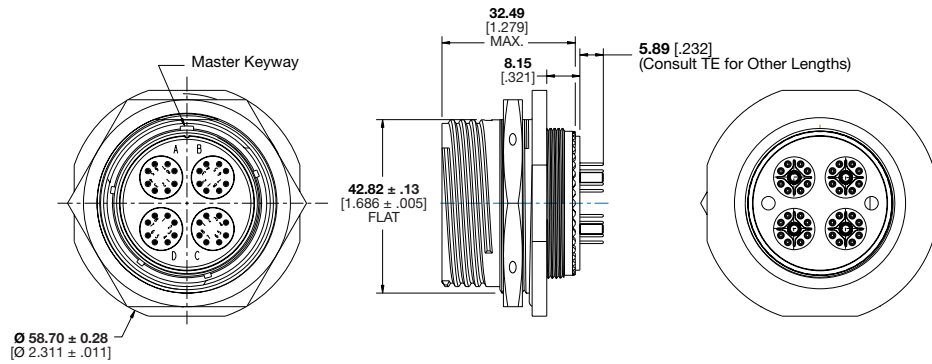




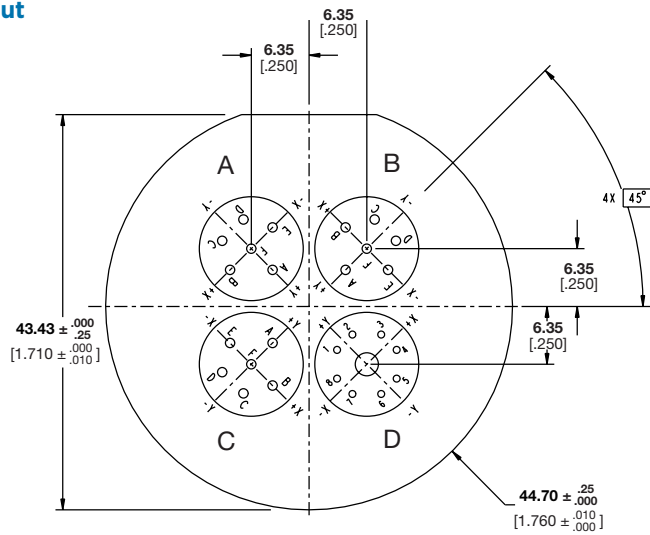
Quad-Channel D38999 Circular, Shell Size 25

Jam Nut Receptacle

CFX24*2532***



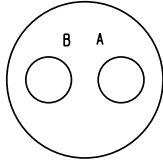
PCB Layout



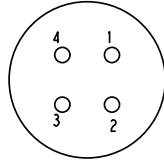


CeeLok FAS-X Connector Modules

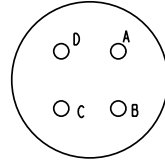
CeeLok FAS-X connectors are also available with a variety of modules to accommodate various counts of Size 22, 20, and 16 contacts in a Size 25 shell. Such capabilities help provide a convenient mixture of signal and power through the connectors.



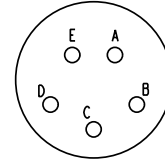
11-02
2 Size 16 Contacts



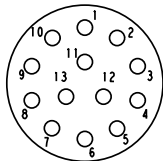
11-H4
4 Size 22 Contacts



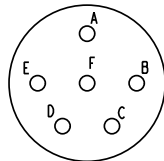
11-04
4 Size 20 Contacts



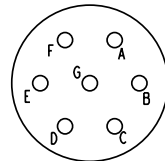
11-05
5 Size 20 Contacts



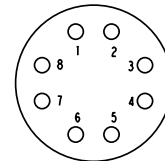
11-35
13 Size 22 Contacts



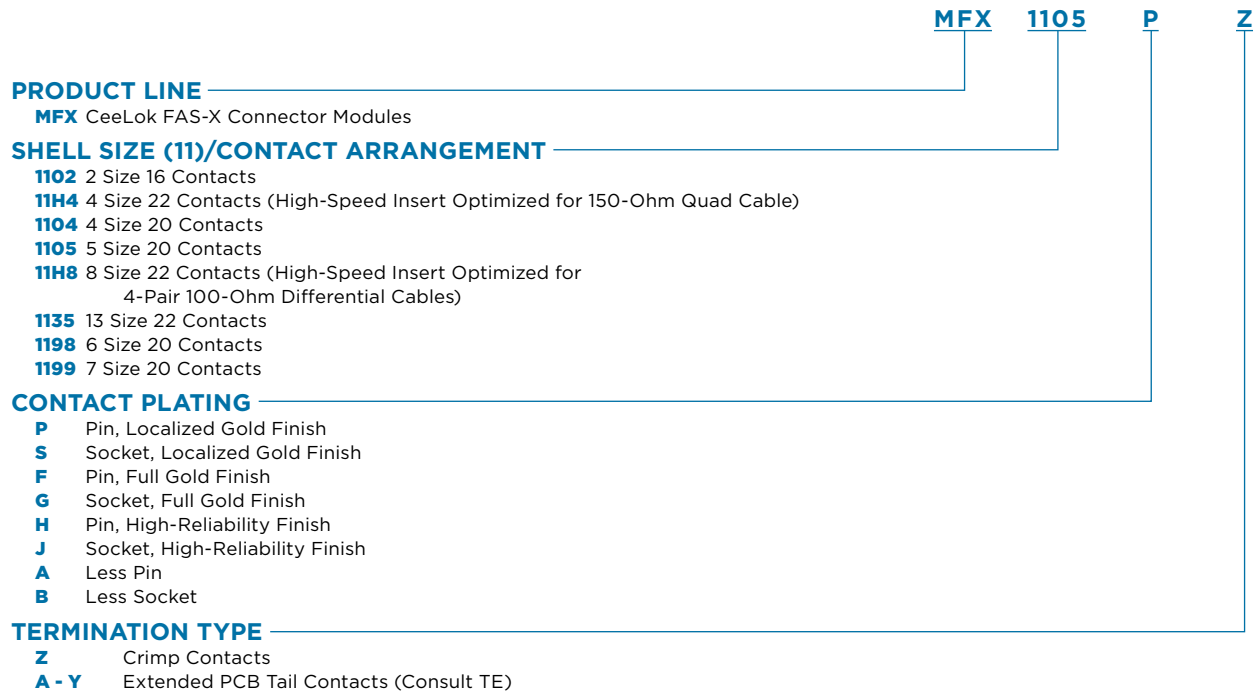
11-98
6 Size 20 Contacts



11-99
7 Size 20 Contacts



11-H8
8 Size 22 Contacts

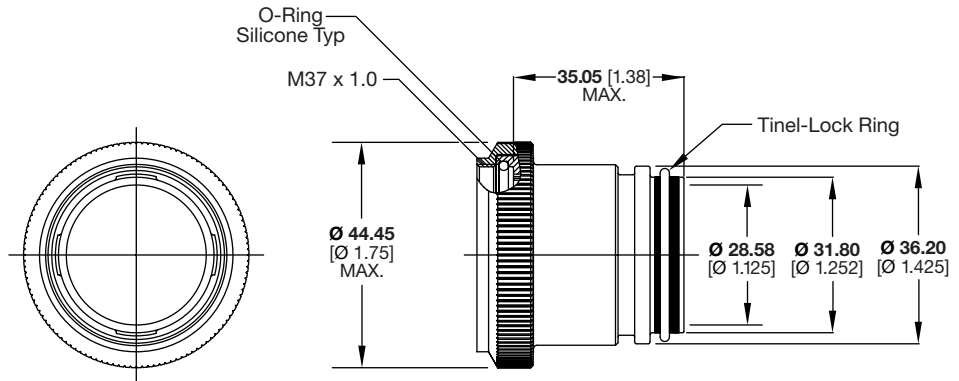




CeeLok FAS-X Connector Modules

Adapters

Tinel-Lock backshell adapters are available to provide reliable braided shield termination using Tinel-Lock rings and accommodate a lipped heat-shrink boot.



Part No.

TXS201 A X 00-24 BI

TXS201 A X 00-24 AI

Aluminum alloy body with nickel PTFE plating

BI = Tinel-Lock ring for dual-layer 36 AWG or single layer 30 AWG braid shields

AI = Tinel-Lock ring for single layer 26 AWG braid shields

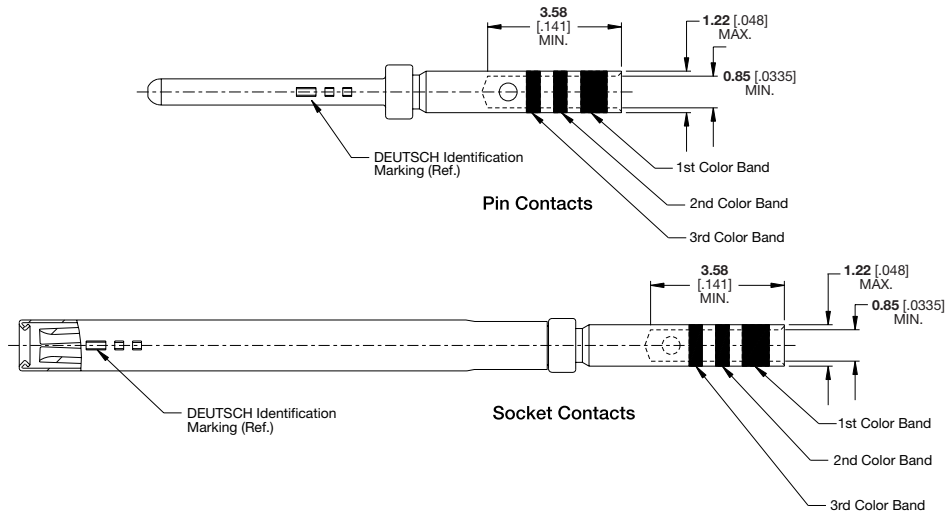
Consult your TE representative for other plating and shield termination options.



CeeLok FAS-X Connector Modules

Size 22D Contacts

28 - 22 AWG wire
 .160 to .190
 recommended
 strip length



Type	Military Part No.	TE DEUTSCH Part No.*	Color Bands			Crimp Tool	
			1st	2nd	3rd	Basic Tool	Positioner
Pin	M39029/107-620	12331-22	Blue	Red	Black	M22520/2-01	M22520/2-09
	M39029/58-360	38941-22, 38941-22L	Blue	Brown	Yellow	M22520/7-01	M22520/7-07
Socket	M39029/106-614	12333-22	Orange	Blue	Black	M22520/2-01	M22520/2-07
	M39029/56-348	38943-22, 38943-22L	Orange	Yellow	Gray	M22520/7-01	M22520/7-05

*12331-22 and 12333-22 are high-durability contacts rated for 1500 mating cycles.
 38941-22x and 38943-22x are standard durability contacts rated for 500 mating cycles.
 The L suffix indicates localized plating; otherwise plating is standard.