

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

High performance connectors within the D38999 families are the most commonly used connectors for incorporation of Twinax contacts. These connectors offer wide versatility in insert arrangements for not only concentric Twinax contacts, but also coax, triax, PCB, wire wrap, thermocouples and EMI filter contacts.

Other connectors available with concentric Twinax contacts:

- Wire Integrated Connectors (WICS) for Data Bus Systems. Consult Amphenol Aerospace, Sidney, NY.
- ARINC 404, ARINC 600 and R27 Series rectangular connectors. Supplied by Amphenol Canada.

SIZE 8 CONCENTRIC TWINAX CONTACTS

The size 8 concentric Twinax contact was developed for use in MIL-STD-1553 Airborne multiplex data bus applications which require high performance interconnect characteristics in multi-pin connectors. Ideal for this application need is the high performance Tri-Start connector with its fully scoop-proof feature of recessed pins. The concentric Twinax contact is crimp terminable to twisted shielded cable. Features include:

- Provides protection from magnetic and electrostatic interference including nuclear electromagnetic pulse
- Maintains shield integrity through a multi-pin circular connector and does not require contact polarization within the insert
- 175°C rated and meets performance levels of MIL-DTL-38999 Series III connectors
- MIL-C-17/176-00002 cable termination
- Gold plated full crimp termination contacts qualified to M39029/90 & /91
- Integral part of the MIL-STD-1760 interconnection system
- Also available in modified but intermateable versions for termination to a host of cables (See chart on next page)

TYPICAL ELECTRICAL PERFORMANCE

Size 8 Concentric Twinax Contacts

Voltage Rating: 500 Vrms max. @ sea level
 Contact Resistance:
 Center @ 1 Amp, 55 millivolts max. voltage drop @ 25°C
 Intermediate @ 1 Amp, 55 millivolts max. voltage drop @ 25°C
 Outer @ 12 Amps, 75 millivolts max. voltage drop @ 25°C
 Operating Frequency: 0–20 MHz
 Dielectric Withstanding Voltage:
 Center to Intermediate: 1000 VAC Rms @ Sea Level
 Intermediate to Outer: 500 VAC Rms @ Sea Level

SHORT PROFILE TWINAX CONTACT OPTION

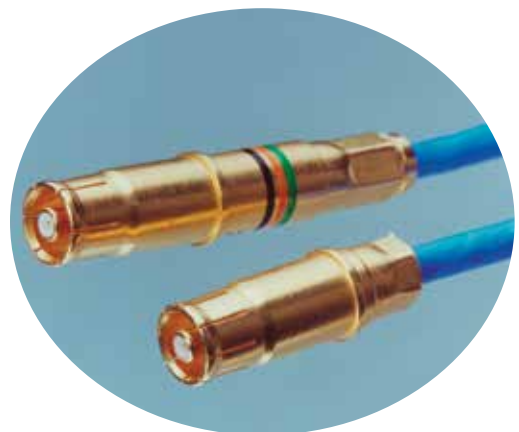
A Short Profile size 8 Twinax is available that can be used with a low profile right angle backshell and can offer increased packaging efficiency. Consult Amphenol Aerospace for further information.



MIL-DTL-38999 Series III Connector with Twinax Contacts and Standard Contacts



Concentric Twinax Contacts Size 8



Short Profile Twinax vs Standard Length Twinax Contact

HIGH SPEED
Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

Twinax Contacts for MIL-DTL-38999

General Description, Application Data - Size 8, cont.

SIZE 8 CONCENTRIC TWINAX CONTACTS FOR USE IN D38999 CONNECTORS

For use with Cable	Size 8 Concentric Twinaxial Contact Part Number (Termination Instruction Sheet)**		Comments	Connector Series
	Pin	Socket		
M17/176-00002	21-033190-625 (L-1253-AG)	21-033191-628 (L-1253-AG)	AS39029/113-625 & /114-628 (Amphenol) Supplied with heat shrink seal	D38999 Series I, III
M17/176-00002, 5PTM1T04-2	21-033190-529 (L-1253-A)	21-033191-530 (L-1253-B)	AS39029/90/91 (Amphenol) Supplied with heat shrink seal	
M17/176-00002	T3-46T08-LD (PN-430)	T3-47T08-LD (PN-430)	M39029/90/91 (Pyle) Supplied with heat shrink seal	
M17/176-00002	21-033190-000 (L-1253-A)	21-033191-000 (L-1253-B)	Without seals	
M17/176-00002	21-033190-001 (L-1253-A)	21-033191-001 (L-1253-B)	Supplied with piggyback grommet seal	
Raychem 10612, 5M2022-003	21-033190-026 (L-1253-AA)	21-033191-026†	Without seals	
Raychem 10614, EPD22189B, 7724C8664, 05A0771, GC875TM24H, T10971	21-033190-022 (L-1253-C)	21-033191-022 (L-1253-D)	Without seals	
Raychem 10613, PAN711-6421, 23089/RC	21-033190-027 (L-1253-K)	21-033191-027 (L-1253-L)	Supplied with heat shrink seal	
Raychem 10613, PAN711-6421, 23089/RC	21-033190-029 (L-1253-K)	21-033191-029 (L-1253-L)	Supplied with piggyback grommet seal	
Raychem 10613, PAN711-6421, 23089/RC	21-033190-030 (L-1253-K)	21-033191-030 (L-1253-L)	Without seals	
GSC-12-2548-00, 7726D0664, ASNE 08072003-09	21-033190-040 (L-1253-S)	21-033191-040 (L-1253-T)	Supplied with heat shrink sleeve	
Axon P517417	21-033190-081 (L-1253-W)†	21-033191-081 (L-1253-Y)†	Supplied with piggyback grommet seal	
Raychem 10612, 5M2022-003	21-033190-261 (L-1253-AA)	21-033191-261†	Supplied with piggyback grommet seal	
Raychem 10612, 5M2022-003	21-033190-262 (L-1253-AA)	21-033190-262†	Supplied with heat shrink seal	
Raychem 10614, 7724C8664	T3-46TB08-LD (PN-494)	T3-47TB08-LD (PN-494)	Without seals	
7820D0111 (20 AWG)	T3-46TC08-LD (PN-537)	T3-47TC08-LD (PN-537)	Without seals	
Gore CXN2268	T3-46TE08-LD (PN-1001)	T3-47TE08-LD (PN-1001)	Short profile Supplied with heat shrink seal (.465)	
M17/176-00002	T3-46TD08-LD (PN-1000)	T3-47TD08-LD (PN-1000)	Short profile Supplied with heat shrink seal (.465)	
M17/176-00002	21-033910-015† (PN-1005)	21-033922-015 (PN-1005)	Short profile Without seals (.263)	
M17/176-00002	21-033617-001 (REF PN-100)	21-033922-015 (PN-1005)	Short profile Supplied with piggyback grommet seal (.465)	
Gore CNX2702	T3-46TF08-LD (PN-1002)	T3-47TF08-LD (PN-1002)	Short profile Supplied with heat shrink seal (.465)	
M17/176-00002		P-209546-27†	Short profile Without seals (.303)	
S280W502-1, Fileca F2709-13-CA, HS5930, Raychem 10602 0024G0024, 0024A0024	21-033190-070 (L-1253-U)	21-033191-070 (L-1253-V)	Without seals	
S280W502-1, Fileca F2709-13-CA, HS5930, Raychem 10602 0024G0024, 0024A0024 Tensolite 24463/9P025x-2(LD)	21-033190-071 (L-1253-U)	21-033191-071 (L-1253-V)	Supplied with piggyback grommet seal	
S280W502-1, Fileca F2709-13-CA, HS5930, Raychem 10602 0024G0024, 0024A0024	21-033190-072 (L-1253-U)	21-033191-072 (L-1253-V)	Supplied with heat shrink seal	
0024A0311, PIC E10244	21-033190-090†	21-033191-090 (L-1253-AD)	Without seals	
0024A0311, PIC E1024	21-033190-091†	21-033191-091 (L-1253-AD)	Supplied with piggyback grommet seal	
0024A0311, PIC E1024	21-033190-092†	21-033191-092 (L-1253-AD)	Supplied with heat shrink seal	
M17/176-00002	21-033190-625 (L-1253-AG)	21-033191-628 (L-1253-AG)	M39029/113-625 & /114-628 Supplied with heat shrink seal	

**Termination instructions are packaged with each contact and can be found on-line at: www.amphenol-aerospace.com/serviceinstructions.asp
† Consult Amphenol Aerospace for current release of this contact or instruction sheet if applicable.

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Shells

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