

TWINAX CONTACTS

Amphenol Twinax contacts were designed for use with twinax cable in data Bus systems.

FEATURES AND BENEFITS

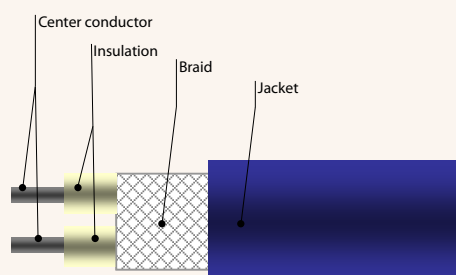
- Protection from magnetic interference
- Protection from electrostatic interference including nuclear electromagnetic pulse
- Meets parameters defined by MIL-STD-1553B
- Maintains shield integrity through a multi-pin circular connector and does not require contact polarization within the insert



MATERIALS AND FINISH

- Body: Copper alloy
- Finish: Gold over nickel on mating parts
- Insulators: High Performance Fluorocarbon or PEEK

TYPICAL TWINAXIAL CABLE



? DO YOU KNOW BUS1553 AND ARINC429 ?

- **Amphenol size 8 concentric twinax** are designed for use in MIL-STD-1553 data bus. MIL-STD-1553 is a military standard published by the United Department of Defense that defines the mechanical, electrical and functional characteristics of a serial data bus.
- **Amphenol size 8 concentric twinax** are designed for use in ARINC429 or DITS (Data Information Transfer System). ARINC429 is technical standard for the avionics data bus used commercial and transport aircraft.

TWINAX CONTACTS

MIL-DTL-38999 SERIES I, III / EN3645

INTERFACE AND QUALIFICATION : SAE AS39029 / 90/91/113/114



FEATURES AND BENEFITS

- 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

TYPICAL ELECTRICAL PERFORMANCE:

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

Contact Size	Cable	Contacts Part Number				Comments
		PIN		SOCKET		
		Proprietary	Standard	Proprietary	Standard	
8	M17/176-00002	074834	M39029/90-529	072453	M39029/91-530	Supplied with heat shrink seal
	M17/176-00002	600850	M39029/113-625	600851	M39029/114-628	Supplied with heat shrink seal

TWINAX CONTACTS

MIL-DTL-38999 SERIES I, III / EN3645 / EN4165
INTERFACE AND QUALIFICATION : EN3155-024 -025 & ABS2217

FEATURES AND BENEFITS

- 200°C rated and meets performance levels of MIL-DTL-38999 series III connectors, EN3645 and EN4165
- Many EN3375 cable termination
- Gold plated full crimp termination contacts qualified to EN3155-024 -025



TYPICAL ELECTRICAL PERFORMANCE

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
Dielectric Withstanding Voltage:
Center to Intermediate: 1000 VAC Rms @ Sea Level
Intermediate to Outer: 500 VAC Rms @ Sea Level

Contact Size	Cable	Contact Part Number				Crimping Tools	
		Pin		Socket			
		Proprietary	Standard	Proprietary	Standard	Inner contact	Intermediate Outer
8	EN3375-003 KG24	600611	EN3155-024M08AB	600614	EN3155-025F08AB	M22520/2-01 with Daniels positionner K880	M22520/5-01 with Daniels tools Y832
	EN3375-004 WJ24	600612	EN3155-024M08BB	600615	EN3155-025F08BB		
	EN3375-005 WV24	600613	EN3155-024M08CB	600616	EN3155-025F08CB		
	EN3375-009 W26	600854	ABS2217P01	600855	ABS2217S01	M22520/2-01 with Daniels positionner K1815	M22520/5-01 with Daniels tools Y833
	EN3375-006 XM24	600856		600857			
	EN3375-004 WJ24	600858	ABS2217P03	600859	ABS2217S03		

TWINAX CONTACTS

1760 INTERFACE

Contact Size	Cable	Contact Part Number				Crimping Tools	
		Pin		Socket			
		Proprietary	Standard	Proprietary	Standard	Inner contact	Intermediate Outer
8	Raychem 10614 EPD44692 EPD44695	600613	711-1760-101	600616	711-1760-201	M22520/2-01 with Daniels positionner K880	M22520/5-01 with Daniels tools Y832
	PAN6421 Raychem 10613	600612	711-1760-102	600615	711-1760-202		
	Raychem 10612 M17/176-00002 EPD44690 EPD44691	600611	711-1760-104	600614	711-1760-204		



Delivered without heat shrink boot or piggy back grommet

TWINAX CONTACTS FOR ARINC600

ABS1600 AND ABS1607

ABS1600
ABS1607
QUALIFIED

TYPICAL ELECTRICAL PERFORMANCE

Voltage Rating: 500 Vrms max. @ sea level

Contact Resistance:

Center @ 1 Amp:

Intermediate @ 1 Amp:

Outer @ 12 Amps:

Operating Frequency:

Dielectric Withstanding Voltage:

Center to Intermediate:

Intermediate to Outer:

55 millivolts max. voltage drop @ 25°C

55 millivolts max. voltage drop @ 25°C

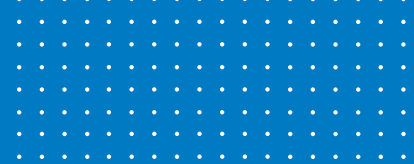
75 millivolts max. voltage drop @ 25°C

0–20 MHz

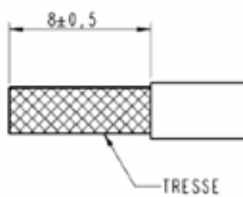
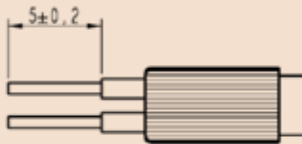
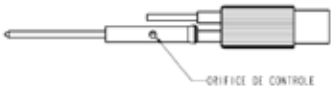
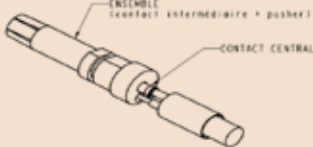
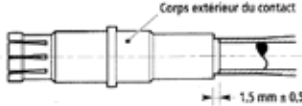
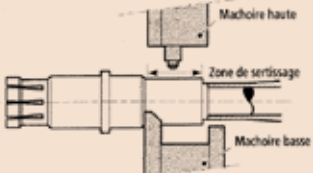
1000 VAC Rms @ Sea Level

500 VAC Rms @ Sea Level

Contact Size	Cable	Contact Part Number			
		Pin		Socket	
		Proprietary	Standard	Proprietary	Standard
8	EN3375-004	140675	ABS1600M08A	140683	ABS1607F08A



TYPICAL CONTACTS INSTALLATION INSTRUCTIONS FOR TWINAX CONTACTS

PICTURE	PROCESS	CHECK	TOOLS
	Strip the jacket Slide the piggy back grommet and crimping ferule	Do not damage the braid	Blade
	Open the braid over the crimping ferule	The braid shall cover equally the crimping ferule	
	Strip the inner conductors	Do not damage the inner conductors	Blade
	Insert the white jacket inner conductor into the inner contact and crimp	The inner conductor shall be visible thru the inspection hole	M22520/2-01 with positionner
	Insert the crimp inner contact into the center hole and insert the blue inner conductor in the intermediate contact crimp the intermediate contact	The inner conductor shall be visible thru the inspection hole	M22520/5-01 with correct die
	Push the sub assembly into the outer contact when nice installed, cut the additional braid	Do not damage the crimping ferule	Blade
	Crimp the outer contact		M22520/5-01 with correct die

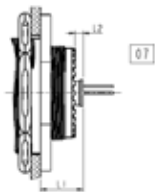
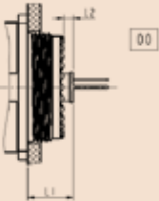
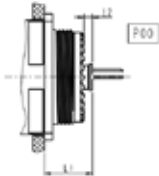
TWINAX CONTACTS

MIL-DTL-38999 SERIES III / EN3645

PRINT CIRCUIT BOARD CONTACTS AND SPECIFICS

Pin 600860, Socket 600709



Connectors with Twinax Contacts		MIL-DTL-38999 series III					MIL-DTL-38999 series III / EN3645 composite	
	Sizes		9 to 11	13	15 to 17	19 to 25	9 to 11	13 to 25
	Pin/Socket	L1	10,4 - 11,6	10,2 - 11,4			10,4 - 11,6	10,2 - 11,4
		L2	1,2 - 2,5		1,2 - 2,3	1,2 - 2,5	0,1 - 1,4	
	Sizes		9 to 25				9 to 19	21 to 25
	Pin/Socket	L1	9,5 - 10,6				9,5 - 10,7	9,6 - 10,8
		L2	1,2 - 2,5				1,2 - 2,5	
	Sizes		9 to 19		21 to 25		9 to 19	21 to 25
	Pin/Socket	L1	11,8 - 12,9		12,5 - 13,7		13 - 14,1	13,8 - 14,9
		L2	1,2 - 2,5				1,2 - 2,5	



INFORMATION

AMPHENOL CAN ALSO PROVIDE SPECIFIC AND CUSTOM TWINAX CONTACT SUCH AS:

- SIZE 10 and 12
- SIZE 8 HOODED
- 90° TWINAX

PLEASE CONSULT US

