

# TWINAX CONTACTS

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

## FEATURES AND BENEFITS

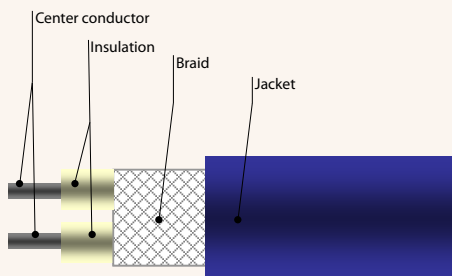
- Protection from magnetic interference
- Protection from electrostatic interference including nuclear electromagnetic pulse
- Meets parameters defined by MIL-STD-1553B
- Maintains shield integrity through a multi-pin circular connector and does not require contact polarization within the insert



## 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:

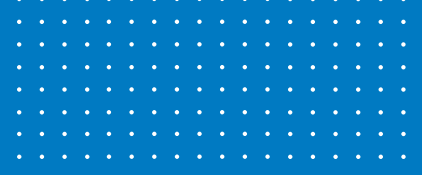
Center @ 1 Amp: 55 millivolts max. voltage drop @ 25°C  
 Intermediate @ 1 Amp: 55 millivolts max. voltage drop @ 25°C  
 Outer @ 12 Amps: 75 millivolts max. voltage drop @ 25°C

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

Concentrix Twinax Contacts

EN3155  
QUALIFIED

ABS2217  
COMPLIANT

### 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		Inner contact	Intermediate Outer
		Proprietary	Standard	Proprietary	Standard		
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

Concentrix Twinax Contacts

Contact Size	Cable	Contact Part Number				Crimping Tools	
		Pin		Socket		Inner contact	Intermediate Outer
		Proprietary	Standard	Proprietary	Standard		
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



### TYPICAL ELECTRICAL PERFORMANCE

Voltage Rating: 500 Vrms max. @ sea level

Contact Resistance:

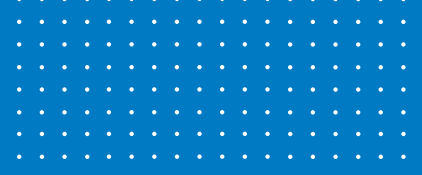
Center @ 1 Amp:	55 millivolts max. voltage drop @ 25°C
Intermediate @ 1 Amp:	55 millivolts max. voltage drop @ 25°C
Outer @ 12 Amps:	75 millivolts max. voltage drop @ 25°C

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

# 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	
	<b>Sizes</b>	<b>9 to 11</b>	<b>13</b>	<b>15 to 17</b>	<b>19 to 25</b>	<b>9 to 11</b>	<b>13 to 25</b>
	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		
	<b>Sizes</b>	<b>9 to 25</b>				<b>9 to 19</b>	<b>21 to 25</b>
	Pin/Socket	L1	9,5 - 10,6			9,5 - 10,7	9,6 - 10,8
	L2	1,2 - 2,5			1,2 - 2,5		
	<b>Sizes</b>	<b>9 to 19</b>		<b>21 to 25</b>		<b>9 to 19</b>	<b>21 to 25</b>
	Pin/Socket	L1	11,8 - 12,9		12,5 - 13,7		13 - 14,1
	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



Concentrix Twinax Contacts