SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

EXTENDED DURABILITY (1500 CYCLE) D38999 QPL M39029/107 (850-007) H PIN CONTACT OPTION AND M39029/106 (850-006) J SOCKET CONTACT OPTION

How-To-Order Extended Duty Crimp Contacts					
Mating End Size	Wire Accomodation	Pin Contacts Military Part No.	Pin Contacts Glenair Part No.	Socket Contacts Military Part No.	Socket Contacts Glenair Part No.
22	22-28 AWG	M39029/107-620	850-007-22-620	M39029/106-614	850-006-22-614
20	20-24 AWG	M39029/107-621	850-007-20-621	M39029/106-615	850-006-20-615
16	16-20 AWG	M39029/107-622	850-007-16-622	M39029/106-616	850-006-16-616
12	12-14 AWG	M39029/107-623	850-007-12-623	M39029/106-617	850-006-12-617

MATERIAL AND FINISH

- Copper alloy / gold plated; IAW ASTM B 488, Type II, Code C, .000005 min thickness, over palladium IAW ASTM B 679, .000045 min thickness, over nickel IAW SAE ASS-QQ-N290, Class 2, .000050 to .000100 thickness
- Rated to 1500 cycles of durability.
- Size 23 contacts not available for M39029/107, for size 23 extended duty crimp contacts, see part number 857-189 and 857-190.

COMMERCIAL, EXTENDED DUTY (1500 CYCLE) CONTACTS FOR SUPERNINE 233-205 AND 233-206 CONNECTORS; AVAILABLE FOR TYPE P AND S CRIMP CONTACT OPTIONS ONLY

How-To-Order Extended Duty Crimp Contacts			
Mating End Size	Wire Accomodation	Pin Contacts Glenair Part No.	Socket Contacts Glenair Part No.
23	22-28 AWG	857-189	857-190
22	22-28 AWG	857-151-22	857-150-22
20	20-24 AWG	857-151-20	857-150-20
16	16-20 AWG	857-151-16	857-150-16
12	12-14 AWG	857-151-12	857-150-12

MATERIAL AND FINISH

- Copper alloy, plated; meets AS39029 specifications.
- Rated to 1500 cycles of durability.
- plated with 50 microinches gold per ASTM B488 Type II code C

#8 HIGH POWER CONTACTS

	How-To-Order #8 High Power Contacts		
Type	Mating End Size	Wire Accommodation	Glenair Part Number
Socket	8	8 AWG	850-013
Pin	8	8 AWG	850-014

MATERIAL AND FINISH

- Contact Body: Copper alloy, plated with 50 microinches gold per ASTM B488 Type II code C
- Hood: CRES, passivated
- 50–100 microinches nickel IAW SAE AMS-QQ-N-290, class II

SIZE #16 COAXIAL CONTACTS

These #16 contacts accept 50 ohm and 75 ohm coaxial cable. Inner contact is rated at 1 amp, the outer contact 12 amps. DWV rating is 800 Vac rms sea level, 250 Vac at 50,000 feet. Contacts are packaged individually and are unassembled with instruction sheet. One contact consists of outer contact , fluorocarbon dielectric, inner contact and shield crimp sleeve. Inner and outer contacts are gold-plated copper alloy. Approved to SAE AS39029. VSWR rating 1.5:1 maximum up to 700 MHz. 5000 megohm insulation resistance.

How-To-Order Size #16 Coaxial Contacts						
Type	Cable Accommodation	Part Number	Military Part Number	Color Band		
				1st	2nd	3rd
Pin	M17/119-RG174, M17/113-RG316, M17/094-RG179, Times AA3248, Teledyne 11299, Haveg 8100207, Thermax 75-738-BCCWXE, Tensolite 3088/L707YX-1	852-008-16-424	M39029/76-424	Yellow	Red	Yellow
	M19/093-RG178	852-008-16-425	M39029/76-425	Yellow	Red	Green
Socket	M17/119-RG174, M17/113-RG316, M17/094-RG179, Times AA3248, Teledyne 11299, Haveg 8100207, Thermax 75-738-BCCWXE, Tensolite 30888/L707YX-1	852-009-16-428	M39029/77-428	Yellow	Red	Gray
	M17/093-RG178	852-009-16-429	M39029/77-429	Yellow	Red	White

MATERIAL AND FINISH

- Contact Body: Copper Alloy/Gold Plated
- Center Contact: Copper Alloy/Gold Plated
- Crimp Sleeve: Copper Alloy/Gold Plated
- Insulator: Teflon

SIZE #12 COAXIAL CONTACTS

These contacts offer improved frequency response compared to standard coaxial contacts. Nominal impedance is 50 ohms VSWR is 1.32:1 at 3GHz when the contacts are used with M17/113-RG316 cable. Insertion loss at 3GHz is 0.20 dB maximum. Inner contact is rated at 1 amp, the outer contact 12 amps. DWV voltage rating is 1000 Vac rms sea level, 250 Vac at 50,000 feet. Contacts are packaged individually and shipped unassembled with instruction sheet. Inner and outer contacts are gold-plated copper alloy. 5000 megohm insulation resistance.

How-To-Order Size #12 Coaxial Contacts

Type	Cable Accommodation	Part Number	Military Part Number	Color Band		
				1st	2nd	3rd
Pin	M17/113-RG316 M17/094-RG179	852-004-12-558	M39029/102-558	Green	Green	Gray
	M17/152-00001 (RG316DS)	852-016-02	N/A	N/A		
	M17/93-RG178	852-016-03	N/A	N/A		
	TFlex-405 or 086 equivalent	852-018	N/A	N/A		
Socket	M17/113-RG316 M17/094-RG179	852-005-12-559	M39029/102-558	Green	Green	White
	M17/152-00001 (RG316DS)	852-019-02	M39029/103-559	N/A		
	M17/93-RG178	852-019-03	N/A	N/A		
	TFlex-405 or 086 equivalent	852-037	N/A	N/A		

MATERIAL AND FINISH

- Contact Body: Copper Alloy/Gold Plated
- Hood: Stainless Steel/Passivated
- Center Contact: Copper Alloy/Gold Plated
- Crimp Sleeve: Copper Alloy/Gold Plated
- Insulator: Teflon

SuperNine® Contacts
MIL-DTL-38999 Series III Type
M39029 and Glenair signature contact solutions

SIZE #12, 3 GHZ MAX OPERATING FREQUENCY, 75 OHM MATCHED IMPEDANCE COAXIAL CONTACTS

Pin Contact

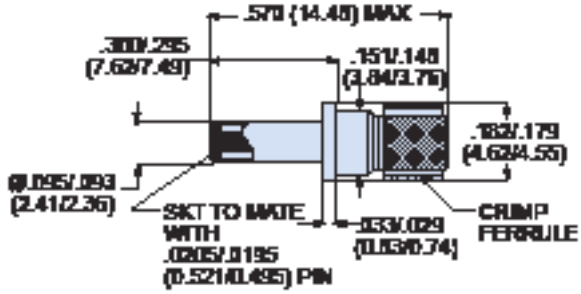
Socket Contact

75 Ohm coax contacts provide DC – 3 GHz frequency range. Crimp termination. Supplied as unassembled kit with contact body, center contact and outer ferrule. Snap-in, rear-release contacts fit Series 80 Mighty Mouse connectors and Glenair MIL-DTL-38999 Series I, III, and IV connectors with size #12 cavities. Gold-plated copper alloy, fluoroplastic insulator.

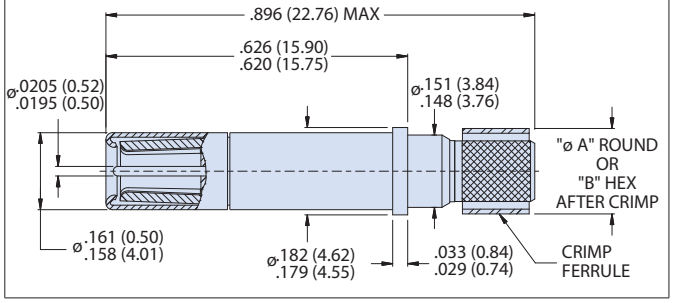
Size 12, 75 Ohm Matched-Impedance Coaxial Contacts			
RG Cable	Pin Contact	Socket Contact	Assembly Instructions
V75268, V76261, V73263 (PIC™ Wire and Cable)	852-103-01	852-106-01	AI85088, AI85024
RG179 (M17/94-RG179)	852-103-02	852-106-02	AI85031, AI85075

Technical Data	
Specifications	**Construction**
■ Operating temperature: -65°C. to +200°C. ■ Dielectric withstanding voltage: 500 VRMS ■ Current rating: 1 ampere ■ VSWR: 1.25:1 max. @ 3 GHz ■ Impedance: 75 Ohms nominal ■ Durability: 500 mating cycles ■ Shock: EIA-364-27 condition D ■ Vibration: EIA-364-28 condition VI, letter J	■ Center contact, body,crimp sleeve: copper alloy, 50 microinches gold over nickel plating ■ Insulator: fluoroplastic ■ Socket Hood: stainless steel, passivated

Pin Contact 852-103-01, -02



Socket Contact 852-106-01, -02



SuperNine® Contacts

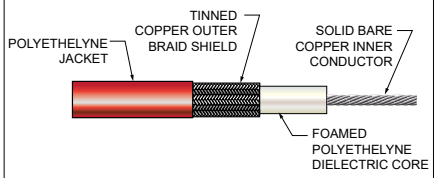
MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

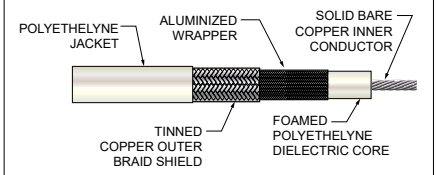
SIZE #12, 3 GHZ MAX OPERATING FREQUENCY, 75 OHM MATCHED IMPEDANCE COAXIAL CONTACTS

Coax contacts 852-103 and 852-104 are designed for use with V75268, V76261, V73263 PIC wire and RG179. V75268 and V75261 coaxial cable can be used in cabin entertainment analog and digital video applications. V75263 cable is suitable for high definition digital video and offers low VSWR and attenuation characteristics. Manufactured by PIC Wire, these cables are Skydrol resistant, RoHS compliant and meets the FAA flammability requirements of FAR Part 23 and 25, Appendix F; complies with MIL-C-17 as applicable

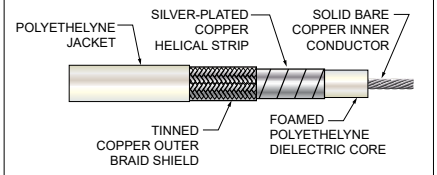
V75268



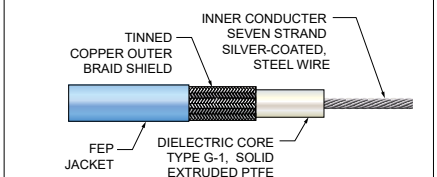
V75261



V76263



M17/94 RG179



Glenair Part No.	960-130	960-131	960-132	N/A
Manufacturer Part No.	V75268	V76261	V73263	N/A
Military Part Number	N/A	N/A	N/A	RG179 (M17/94-RG179)
Manufacturer	PIC	PIC	PIC	MIL-SPEC
Impedance	75	75	75	75
Velocity of Propagation %	80.0	80.0	80.0	69.5
Capacitance (pF/ft)	16.0	16.0	16.0	23.0
Conductor Wire Size	AWG 26	AWG 26	AWG 26	.012 (0.30)
Conductor Type	Stranded SPC	Stranded SPC	Stranded SPC	Stranded SPC
Dielectric	Foamed Flouropolymer	Foamed Flouropolymer	Foamed Flouropolymer	Extruded PTFE
Shielding Effectiveness (dB)	-50 min	-90	-110	N/A
Outer Diameter	0.12 (3.10)	0.12 (3.10)	0.13 (3.18)	.100 (2.54)
Weight (lbs/100ft.)	1.3	1.1	1.5	.0108
Temperature Range	-55° to +150°C	-55° to +150°C	-55° to +150°C	-55° to +200°C
Frequency	Attenuation (dB/100 ft) nom/max			
135 MHz	5.9/6.5	5.8/6.4		
180 MHz	6.9/7.6	6.7/7.4		
270 MHz	8.6/9.5	8.3/9.1		
360 MHz	10.1/11.1	9.7/10.6		
400 MHz			10.2/11.3	21.0 nominal
750 MHz			14.2/15.7	
1.45 GHz		21.9/23.4	21.9/23.4	
1.5 GHz			20.6/22.7	
3.0 GHz		33.7/36.1	30.3/33.3	
6.0 GHz			44.9/49.5	

SuperNine® Contacts
MIL-DTL-38999 Series III Type
M39029 and Glenair signature contact solutions

SIZE #8 50 OHM CONTACTS FOR LOW LOSS HIGH PERFORMANCE COAX CABLE

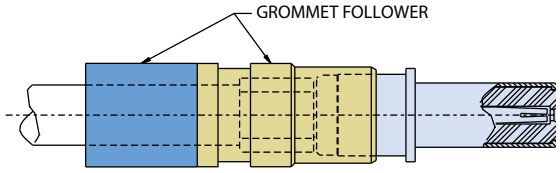
Pin Contact

Socket Contact

Coax contacts fit Glenair Series 80 Mighty Mouse connectors and MIL-DTL-38999 Series I, III, and IV connectors with size 8 contact cavities. 50 Ohm nominal impedance. 0-2.5 GHz frequency range. Solder conductor to center contact, shield termination is crimp type. Supplied as unassembled kit with contact body, center contact, outer ferrule and sealing boot. Contacts are snap-in, rear release with plastic extraction tool. Gold-plated copper alloy, Fluoropolymer insulator. See following page for information on coaxial cable.

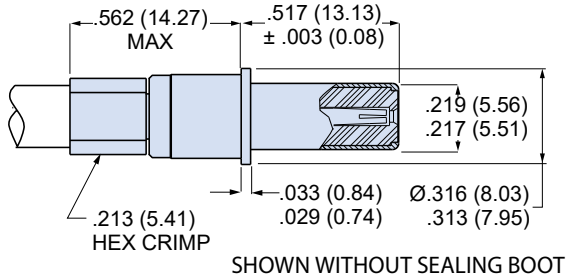
Fig.	Contact Type	Part Number Contact Only	Part Number Contact and Sealing Boot	Sealing Boot
Fig. 1	Pin	852-043	852-043F	859-042-02
Fig. 2	Socket	852-042	852-042F	859-042-02

Pin Contact 852-043F



SHOWN WITH SEALING BOOT

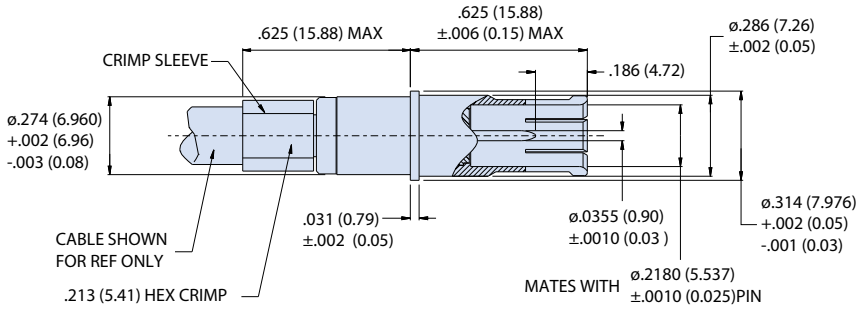
Pin Contact 852-043



SHOWN WITHOUT SEALING BOOT

Materials, Finishes	
Contact body, center contact, ferrule	Copper Alloy
Contact finish	50 microinches gold over nickel plating
Dielectric	Fluorocarbon

Socket Contact 852-042F



Technical Data

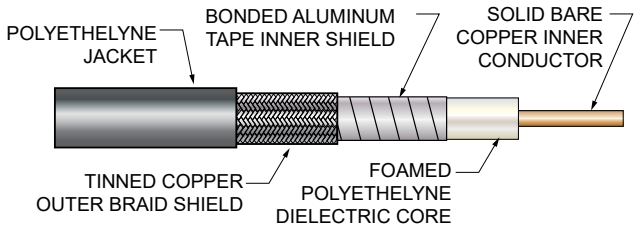
Specifications	Construction
❑ Nominal Impedance: 50 Ohms ❑ Frequency Range: 0 – 2.5 GHz ❑ Dielectric Withstanding Voltage: 1300 VAC sea level, 250 VAC at 50,000 feet ❑ Insulation Resistance: 5000 megOhms minimum ❑ Durability: 500 mating cycles	❑ Center contact: copper alloy/ gold plated ❑ Body: copper alloy/ gold plated ❑ Ferrule: copper alloy/ gold plated ❑ Insulator: PTFE / N.A.

SIZE #8 50 OHM CONTACTS FOR LOW LOSS HIGH PERFORMANCE COAX CABLE

Coax contacts 852-042 and 852-043 are designed for use with LLSB-200 and LMR-195 cable (reference only, not sold by Glenair). This low loss, flexible cable is suitable for shipboard, airframe and tactical vehicles. Manufactured by Times Microwave, these cables are qualified to MIL-DTL-17/220. LMR-197 is a drop-in replacement for RG-58 and RG142 (TLMR is not QPL). Jacket is non-halogen, low smoke black UV resistant cross-linked polyethylene.

Manufacturer Part No.	LLSB-200	LMR-195
Military Part Number	M17/220-00001	M17/ RG-58 or RG142
Impedance	50 ± 2	50
Velocity of Propagation %	80	80
Capacitance (pF/ft)	24.5	25.4
Conductor Type	Bare Copper	Bare Copper
Conductor Diameter	.044 (1.12)	.037 (.94)
Dielectric Diameter	.118 (3.0)	.110 (2.79)
Outer Shield Diameter	.144 (3.66)	.116 (2.95)
Shielding Effectiveness (dB)	90 min.	90 min
Outer Diameter	.195 (4.95)	.195 (4.95)
Temperature Range	-30° to +85°C	-40° to +85°Cw
Weight (lbs/ft.)	.037	.021
Attenuation (dB/100 ft)	nominal	
10 MHz	1.3	
30 MHz	2.1	2.0
50 MHz	2.7	2.5
100 MHz	3.8	
150 MHz		4.4
400 MHz	7.7	
450 MHz		7.8
900 MHz		11.1
1 GHz	12.0	
1.5		14.5
2.5 GHz	20.0	19.0

LLSB-200 and LMR-195 Cable



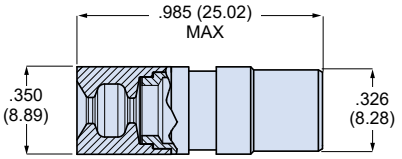
NOTE

1. 852-043 / -042 can be used / terminated on both cables LLSB-200 and LMR-195

Sealing Boot

Optional sealing boot is recommended. Slide boot onto wire before terminating contact. After contact is installed in connector, slide boot forward into connector grommet to seal the contact cavity. "F" suffix on contact part number specifies contact supplied with 859-042-02 sealing boot.

Sealing Boot Dimensions		
Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.130 - .170	3.30 - 4.32	859-042-02



SuperNine® Contacts

MIL-DTL-38999 Series III Type

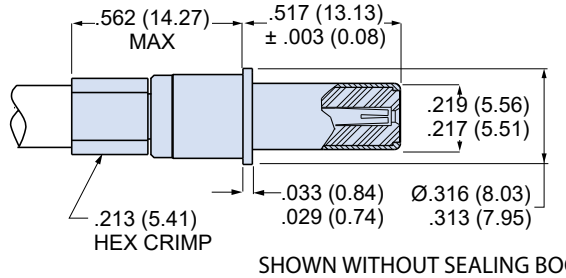
M39029 and Glenair signature contact solutions

SIZE #8, 3 GHZ MAX OPERATING FREQUENCY, 50 OHM COAX CONTACTS AND CABLE

Pin Contact Socket Contact

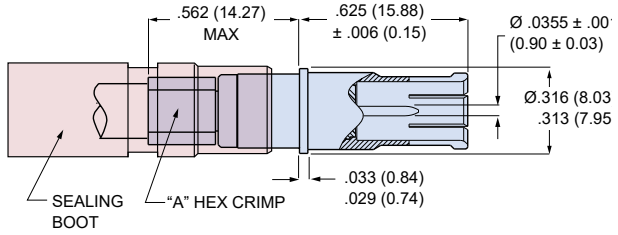
Dash Number	Cable Accommodation	"A" Hex	"B" Hex	Pin Part No.	Socket Part No.
-01	M17/152-00001 (RG316DS)	.128	-	852-031 no sealing boot	852-030 no sealing boot
-02	M17/113-RG316	.128	-		
-03	M17/060-RG142 M17/128-RG400	-	.218	852-031F with sealing boot	852-030F with sealing boot
-04	M17/28-RG58	-	.218		

Pin Contact 852-031



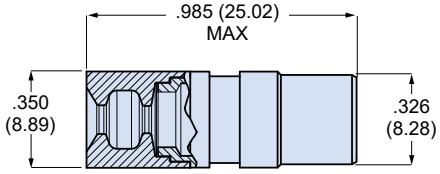
SHOWN WITHOUT SEALING BOOT

Socket Contact 852-030



SHOWN WITH SEALING BOOT

Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.090 - .130	2.3 - 3.3	859-042-01
.130 - .170	3.3 - 4.3	859-042-02
.170 - .205	4.3 - 5.2	859-042-03



Sealing Boot	
Contact Part No.	Sealing Boot
852-031-01F	859-042-01
852-030-01F	859-042-01
852-031-02F	859-042-01
852-030-02F	859-042-01
852-031-03F	859-042-03
852-030-03F	859-042-03
852-031-04F	859-042-03
852-030-04F	859-042-03

SuperNine® Contacts

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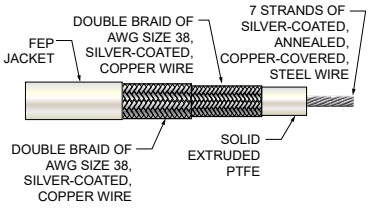
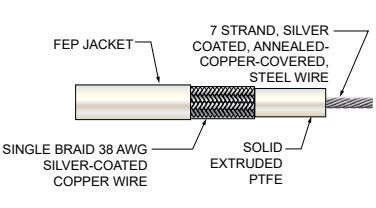
M39029 and Glenair signature contact solutions

SIZE #8, 3 GHZ MAX OPERATING FREQUENCY, 50 OHM COAX CONTACTS AND CABLE

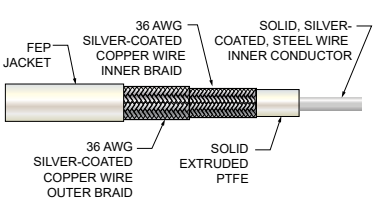
M17/152-00001



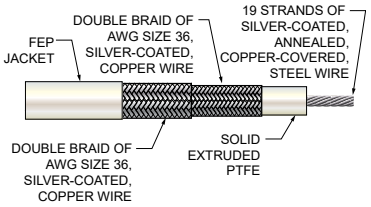
M17/113-RG316



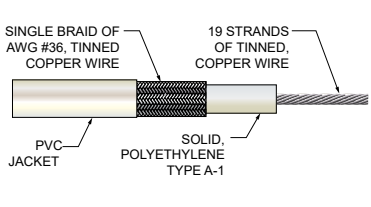
M17/60-RG142



M17/128-RG400



M17/28-RG058



Military Part Number	M17/152-00001 (RG316DS)		M17/113-RG316		M17/060-RG142		M17/128-RG400		M17/28-RG058	
Impedance (Ohms)	50		50		50		50		50	
Velocity of Propagation %	69.5		69.5		69.5		69.5		69.5	
Capacitance (pF/ft)	32.0		32.0		29.3		32		32.2	
Conductor Wire Size	Seven Strands of Silver-Coated, Annealed Copper-Covered, Steel Wire. OD: 0.0201 ± .0010				Solid Silver-Coated, Steel Wire. OD: 0.0201 ± .0010		Solid Silver-Coated Steel Wire OD: 0.037 ± .001		19 Strands of Tinned Copper Wire OD: 0.0355 ± 0.0020	
Dielectric Core	Type F-1: Solid, Extruded PTFE		Type F-1: Solid, Extruded PTFE		Type F-1: Solid, Extruded PTFE		Type F-1: Solid, Extruded PTFE		Type A-1: Solid Polyethylene	
First Shield	38 AWG Silver-Coated Copper Wire 95.4% Nom. Coverage		38 AWG Silver-Coated Copper Wire 95.2% Nom. Coverage		36 AWG Silver-Coated Copper Wire 94.8% Nom. Coverage		36 AWG Silver-Coated Copper Wire 94.8% Nom. Coverage		Single Braid of 36 AWG Tinned Copper Wire 92.8% Nom. Coverage	
Second Shield	38 AWG Silver-Coated Copper Wire 94.6 Nom. Coverage		N/A		36 AWG Silver-Coated Copper Wire 93.1 Nom. Coverage		36 AWG Silver-Coated Copper Wire 93.6% Nom. Coverage		N/A	
Shielding Effectiveness (dB)	40 to 60 dB range acceptable for lower frequency applications									
Jacket	Type IX: FEP		Type IX: FEP		Type IX: FEP		Type IX: FEP		Type IIA: PVC	
Outer Diameter	.114 (2.90) ±.004 (.10)		.098 (2.49) ±.004 (.10)		.195 (4.95) ±.005 (0.13)		.195 (4.95) ±.005 (0.13)		.195 (4.95) ±.004 (0.10)	
Temperature Rating	-55°C to +200° C		-55°C to +200° C		-55°C to +200°C		-55°C to +200°C		-40°C to +85°C	
Weight	1.85 (lbs/100 ft.)		1.22 (lbs/ft.)		.043 (lbs/ft.)		5 (lbs/100 ft.)		.026 (lbs/ft.)	
Max. Attenuation	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft
	50	7.5	50 MHz	30	50 MHz	3.0	50 MHz	3.2	50 MHz	4.0
	500	26	100 MHz	30	100 MHz	4.4	100 MHz	4.5	100 MHz	6.5
	1,000	40	400 MHz	23	400 MHz	9.3	400 MHz	10.5	400 MHz	17.0
	3,000	75	1000 MHz	21	1000 MHz	15.3	1,000 MHz	17	1000 MHz	28.0
	10,000	170	3000 MHz	17	3000 MHz	29.3	3,000 MHz	38		
	12,400	230			8000 MHz	57.8	10,000 MHz	78		
					12400 MHz	85.4	12,400 MHz	90		

SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #8, 4 GHZ MAX FREQUENCY, 75 OHM LOW-LOSS, MATCHED-IMPEDANCE COAX CONTACTS & CABLE

852-056
Pin Contact

852-057
Socket Contact

852-082
Pin Contact

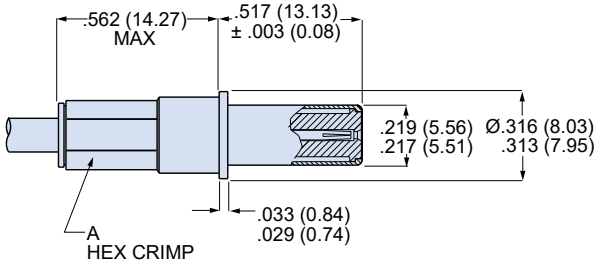
852-083
Socket Contact

Size 8 coax contacts fit aerospace-grade digital video cable. 75 Ohm nominal impedance. 0-4 GHz frequency range. Crimp termination. Supplied as unassembled kit with contact body, center contact, outer ferrule and sealing boot. These snap-in, rear-release contacts fit Series 80 Mighty Mouse connectors and Glenair MIL-DTL-38999 Series I, III, and IV connectors with size #8 cavities. Gold-plated copper alloy, fluoroplastic insulators.

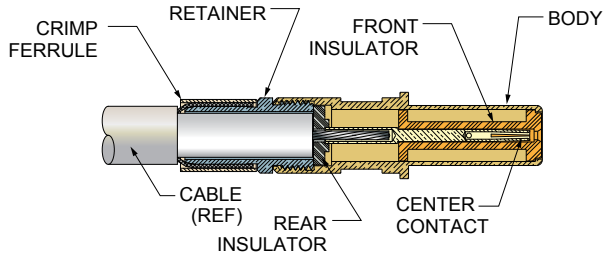
Size 8, 75 Ohm Matched-Impedance Coaxial Contacts

Cable	Contact without Sealing Boot		Contact with Sealing Boot		Sealing Boot	*Hex A Crimp Dim*
	Pin	Socket	Pin	Socket		
960-130 (V7568) 960-131 (V76261) 960-132 (V73263)	852-056-01	852-057-01	852-056-01F	852-057-01F	859-042-01	.218 (5.54)
RG179 (M17/ 94-RG179)	852-056-02	852-057-02	852-056-02F	852-057-02F	859-042-01	.128 (3.25)
V78209 (PIC™ Wire and Cable)	852-082-01	852-083-01	852-082-01F	852-083-01F	687-754-8-8	.231 (5.87)
LMR-240-75 (Times Microwave)	852-082-02	852-083-02	852-082-02F	852-083-02F	687-754-8-9	.231 (5.87)

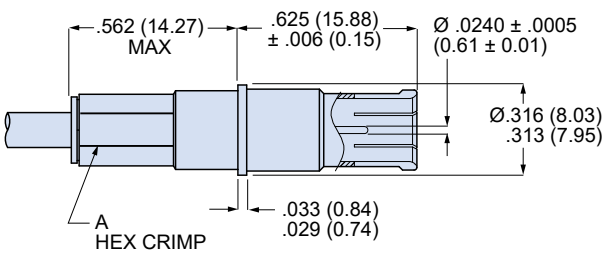
Pin Contact 852-056-01/-02, 852-082-01/-02



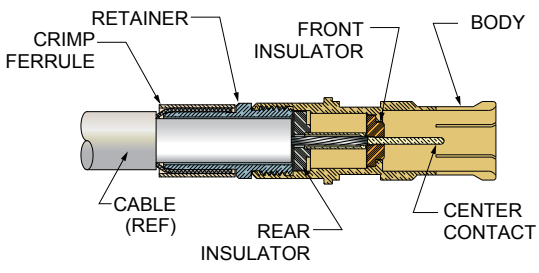
Pin Contact



Socket Contact 852-057-01/-02, 852-083-01/-02



Socket Contact\l



SIZE #8 COAXIAL CONTACT CRIMP TOOLS AND SEALING BOOT

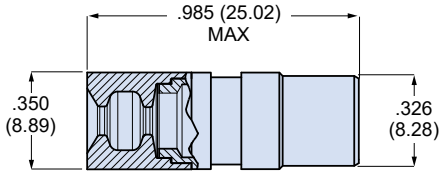
Technical Data
Specifications
❑ Operating temperature: -65ºC. to +200ºC.
❑ Dielectric withstanding voltage: 500 Vac rms at sea level
❑ Current rating: 1 ampere
❑ VSWR: 1.25:1 max. @ 4 GHz
❑ 75 Ohm nominal impedance
❑ Durability: 500 mating cycles
❑ Shock: EIA-364-27 condition D
❑ Vibration: EIA-364-28 condition VI, letter J
Construction
❑ **Center contact, body, retainer, clamp nut, ferrule**: copper alloy, 50 microinches gold over nickel plating
❑ **Front and rear insulator**: fluoropolymer
❑ **Sealing boot**: fluorosilicone rubber, glass-filled PEI

Sealing Boot

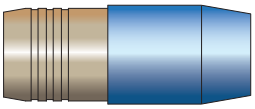
Optional sealing boot is recommended. Slide boot onto wire before terminating contact. After contact is installed in connector, slide boot forward into connector grommet to seal the contact cavity. "F" suffix on contact part number specifies contact supplied with sealing boot.

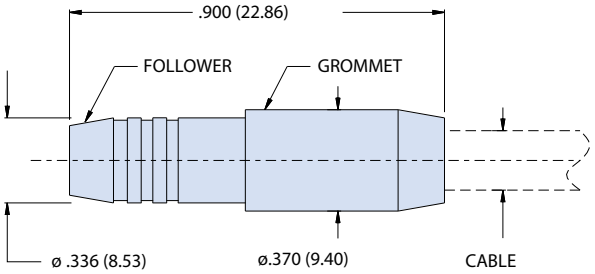
Sealing Boot Dimensions		
Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.090 - .130	2.3 - 3.3	859-042-01
.200 - .225	5.08 - 5.715	687-754-8-8
.225 - .240	5.715 - 6.096	687-754-8-9

Sealing Boot 859-042-01



Sealing Boot 687-754-8-8/-9

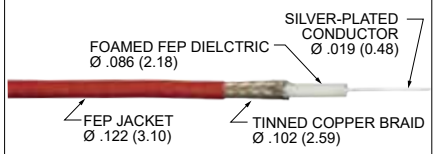




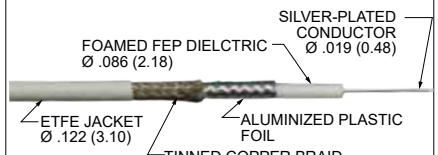
SIZE #8, 4 GHZ MAX FREQUENCY, 75 OHM LOW-LOSS, MATCHED-IMPEDANCE COAX CONTACTS & CABLE

PIC™ brand video cable is specially designed and manufactured for reliable performance in aircraft systems and other harsh environments involving high temperature, EMI and corrosive materials. Improved strength, lower attenuation, and better shielding compared with M17/94-RG179. Silver-plated conductor, foamed FEP dielectric, tinned copper braid, FEP or ETFE jacket. Skydrol resistant, RoHS compliant, meets FAA FAR Parts 23 and 25, Appendix F flammability, complies with MIL-DTL-17.

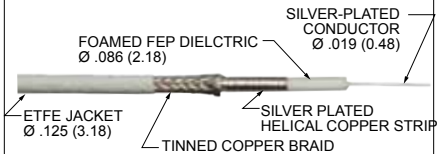
PIC™ V75268



PIC™ V76261



PIC™ V73263



Glenair Part No.	960-130		960-131		960-132	
Manfacturer Part No.	V75268		V76261		V73263	
Mandufacturer	Picwire		Picwire		Picwire	
Impedance (Ohms)	75		75		75	
Velocity of Propagation %	80		80		80	
Capacitance (pF/ft)	16.0		16.0		16.0	
Conductor Wire Size	AWG 26 Stranded SPC		AWG 26 Stranded SPC		AWG 26 Stranded SPC	
Outer Diameter	0.12 (3.10)		0.12 (3.10)		0.13 (3.18)	
Dielectric	Foamed Fluoropolymer		Foamed Fluoropolymer		Foamed Fluoropolymer	
First Shield	Tinned copper braid, 95% coverage					
Second Shield	None		Aluminized film, 100% coverage		Silver plated helical copper strip, 100%	
Shielding Effectiveness (dB)	50		90		110	
Video Application	RS170		RS170		SMPTE 292M	
Temperature Rating	-65° to +165° C		-65° to +165° C		-65° to +165° C	
Weight (lbs/100 ft.)	1.2 lbs		1.1 lbs		1.5 lbs	
Time Delay	1.28		1.28		1.28	
Attenuation (dB/100 ft)	Nominal	Max.	Nominal	Max.	Nominal	Max.
1 MHz	0.51	0.55	0.49	0.52	0.43	0.58
10 MHz	1.70	1.77	1.6	1.71	1.4	1.6
100 MHz	5.3	5.7	5.1	5.5	4.5	5.0
400 MHz	11.1	11.8	10.6	11.3	9.6	10.6
1.45 GHz	23.0	24.6	21.9	23.4	20.0	22.0
3 GHz	35.0	37.4	33.7	36.1	30.9	34.0

SuperNine® Contacts

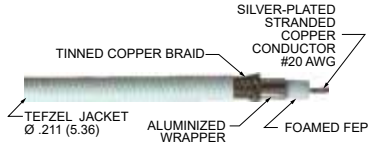
MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

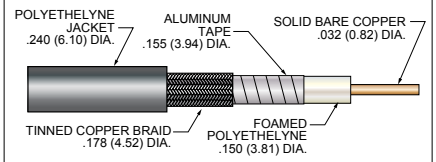
SIZE #8, 4 GHZ MAX FREQUENCY, 75 OHM LOW-LOSS, MATCHED-IMPEDANCE COAX CONTACTS & CABLE

PIC™ brand video cable is specially designed and manufactured for reliable performance in aircraft systems and other harsh environments involving high temperature, EMI and corrosive materials. Improved strength, lower attenuation, and better shielding compared with M17/94-RG179. Silver-plated conductor, foamed FEP dielectric, tinned copper braid, FEP or ETFE jacket. Skydrol resistant, RoHS compliant, meets FAA FAR Parts 23 and 25, Appendix F flammability, complies with MIL-DTL-17.

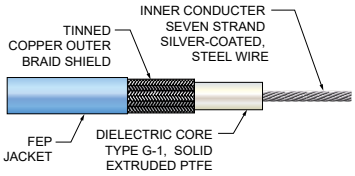
PIC™ V78209



LMR®-240-75



M17/94 RG179



Glenair Part No.	962-007		N/A		N/A	
Manufacturer Part No.	V78209		LMR-240-75		N/A	
Military Part Number	N/A		N/A		M17/94-RG179	
Manufacturer	PIC™		Times Microwave		MIL-SPEC	
Impedance (Ohms)	75		75		75 ±3	
Velocity of Propagation %	80		84		69.5	
Capacitance (pF/ft)	16.5		16.1		23	
Conductor Wire Size	20 AWG Stranded SPC		.032 (.82)		.0040 (0.10)	
Outer Diameter	.21 (5.36)		.240 (6.10)		.100 (2.54)	
First Shield	Tin-Coated Braid		Tin-Coated Braid		7 strand SC[1], ACC[2], steel wire	
Second Shield	Aluminized film, 100% coverage		Aluminized film, 100% coverage		None	
Temperature Rating	-55° to +150° C		-40° to +85° C		-55° to +200°C	
Weight (lbs/100 ft.)	3.0		3.4		.012 (lbs/ft.)	
Max. Attenuation	Freq.	dB/100 ft	Freq.	dB/100 ft	Freq.	dB/100 ft
	1 MHz	0.4	50 MHz	1.6		
	10 MHz	0.9	450 MHz	5.0		
	100 MHz	3.0	900 MHz	7.2	4 GHz	21.0
	400 MHz	6.1	1.5 GHz	9.4		
	1.45 GHz	13.6	2.0 GHz	10.9		
	3 GHz	25.0	2.5 GHz	12.3		

1. SC = silver coated
2. ACC = annealed copper covered

SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #8 COAXIAL CONTACTS

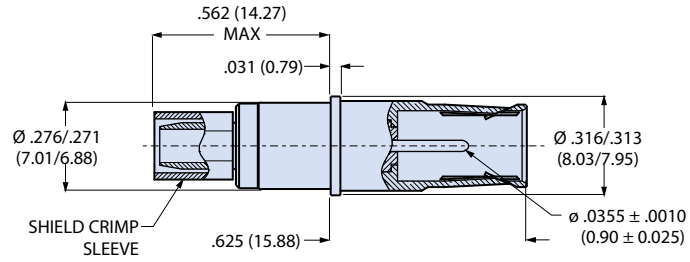
Fig. 1
Pin Contact
852-007-08-367

Fig. 2
Socket Contact
852-006-08-366

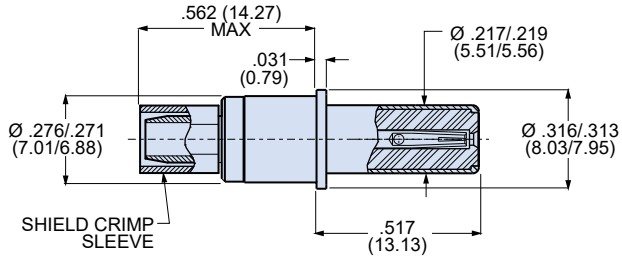
Coax contacts accept M17/095-RG180 cable. These snap-in, rear release contacts fit Glenair Series 80 Mighty Mouse connectors and Glenair MIL-DTL-38999 Series I, III, and IV connectors with size #8 cavities. Crimp termination. Gold-plated copper alloy, Fluoropolymer insulator. Supplied unassembled. Order sealing boot separately (fig. 3). 1 A current rating, 500 Vac. SAE AS39029 qualified.

Fig.	Item	Cable Accommodation	Part Number	AS39029 Part Number	Color Bands		
					1st	2nd	3rd
Fig. 1	Pin	M17/095-RG180	852-007-08-367	M39029/60-367	Orn	Blu	Vio
Fig. 2	Socket	M17/095-RG180	852-006-08-366	M39029/59-366	Orn	Blu	Blu
Fig. 3	Sealing Boot	M17/095-RG180	859-042-02	N/A			

Pin Contact 852-007



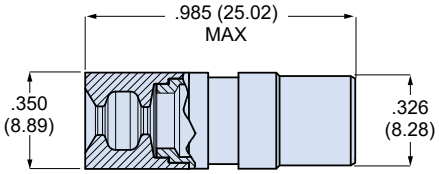
Socket Contact 852-006



Sealing Boot

Sealing boot is ordered separately. Slide boot onto wire before terminating contact. After contact is installed in connector, slide boot forward into connector grommet to seal the contact cavity.

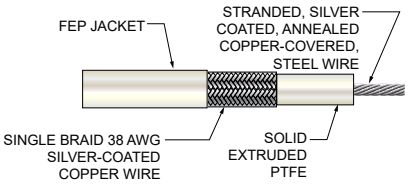
Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.130 - .170	3.3 - 4.3	859-042-02



SIZE #8 COAXIAL CONTACT 95 OHM CABLE

Material and Finish	
Contact Body, Center Contact, Ferrule	Copper Alloy, Gold Plated
Insulator	PTFE
Sealing Boot Grommet	Fluorosilicone
Grommet Follower	Polyetherimide

M17/95-RG180



Contact Specifications	
Current Rating	1 ampere
Contact Resistance, Inner Contact	120 millivolt max. voltage drop @ 1 ampere
Contact Resistance – Outer Contact	60 millivolt max. voltage drop @ 12 amperes
Dielectric Withstanding Voltage	1300 Vrms Sea Level, 250 Vrms at 50,000 feet
Temperature Range	-65°C to +200°C
Durability	500 mating cycles
Corrosion	EIA-364-26, condition B, 48 hours
Vibration	EIA-364-28, condition V, letter J, 37g's
Shock	EIA-364-27, condition D, 300g's

Military Part Number	M17/95-RG180	
Maximum Operating Frequency	3 GHz	
Impedance (Ohms)	95	
Velocity of Propagation %	69.5	
Capacitance (pF/ft)	17.4	
Conductor	AWG 28 (7/38) Silver-Coated, Annealed-Copper-Covered, Steel Wire.	
Shielding Effectiveness (dB)	<-90 dB	
Dielectric Core	Type F-1: Solid, Extruded PTFE	
First Shield	38 AWG Silver-Coated Copper Wire 91.0% Nom. Coverage	
Second Shield	N/A	
Jacket	Type IX: FEP	
Outer Diameter	.141 (3.58) ± .004 (0.10)	
Temperature Rating	-55°C to +200° C	
Weight	.0198 (lbs/ft.)	
Time Delay nS/ft	N/A	
Max. Attenuation	Freq. (MHz)	dB/100 ft
	400	17.0

SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #8 CONCENTRIC TWINAX CONTACTS FOR MIL-STD-1553 DATABUS

Fig. 1
Pin Contact
853-003-08-625

Fig. 2
Socket Contact
853-004-08-628

Fig. 3
Heatshrink Boot
(Supplied with Contact)

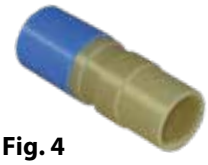
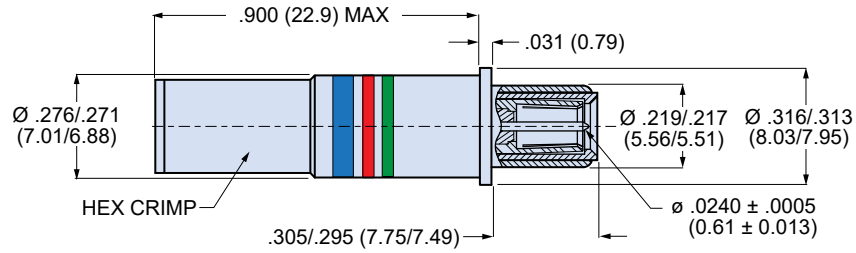


Fig. 4
Sealing Boot
859-042-01
(Not supplied with contact.
Order separately)

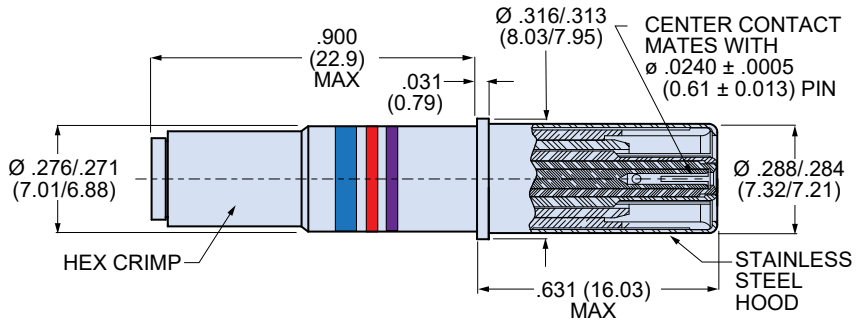
Concentric twinax contacts accept M17/176-0002 shielded twisted pair databus cable. These snap-in, rear release contacts fit Glenair Series 23 Mighty Mouse connectors and Glenair MIL-DTL-38999 Series I, III and IV connectors with size #8 cavities. Crimp termination. Gold-plated copper alloy, FEP insulator. Supplied unassembled with heatshrink boot (fig.3). Order sealing boot separately (fig.4). 55mV max voltage drop at 1 amp test current. DWV at sea level: 1000 VAC between contacts; 500 VAC between intermediate and outer contact. SAE AS39029 qualified.

Fig.	Description	Cable Accommodation	Part Number	AS39029 Part Number	Color Bands		
					1st	2nd	3rd
Fig. 1	Pin	M17/176-00002	853-003-08-625	M39029/113-625	Blu	Red	Grn
Fig. 2	Socket	M17/176-00002	853-004-08-628	M39029/114-628	Blu	Red	Vio
Fig. 4	Sealing Boot	M17/176-00002	859-042-01				

Pin Contact 853-003-08-625



Socket Contact 853-004-08-628



SuperNine® Contacts

MIL-DTL-38999 Series III Type

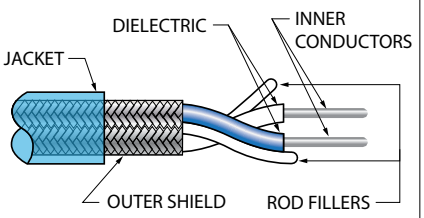
M39029 and Glenair signature contact solutions

CABLE FOR SIZE #8 CONCENTRIC TWINAX CONTACTS FOR MIL-STD-1553 DATABUS

Material and Finish	
Contact Body, Inner and Intermediate Contacts and Crimp Sleeve	Copper Alloy / Gold Plated
Insulators	Peek and PTFE / N/A
Sealing Boot Grommet	Fluorosilicone
Grommet Follower	Polyetherimide

Contact Specifications	
Current Rating	**1 ampere**
Contact Resistance, Center and Intermediate Contacts	55 millivolt max. voltage drop @ 1 ampere
Contact Resistance – Outer Contact	75 millivolt max. voltage drop @ 12 amperes
Dielectric Withstanding Voltage, Center Contact to Intermediate Contact	1000 Vrms Sea Level, 250 Vrms at 70,000 feet
Dielectric Withstanding Voltage, Intermediate Contact to Outer Contact	500 Vrms Sea Level, 250 Vrms at 70,000 feet
Temperature Range	-65°C to +175°C
Durability	500 mating cycles
Corrosion	EIA-364-26, condition B, 48 hours
Vibration	EIA-364-28, condition V, letter J, 37g's
Shock	EIA-364-27, condition D, 300g's

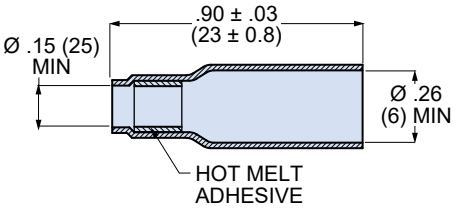
M17/176-00002



Military Part Number	M17/176-00002	
Impedance	77 Ohm	
Operating Frequency	10 MHz max	
Velocity of Propagation %	68	
Capacitance	24 pF/foot	
Conductor	Two - 24 AWG (19/36) silver-coated, high strength copper alloy wire	
Dielectric	PTFE	
Outer Conductor	Single braid of AWG 38, silver-coated, high strength copper alloy wire	
Jacket	Type XIII: PFA	
Outer Dia.	.129 (3.28) ± .005 (0.13)	
Temperature Rating	-55° to +200°C	
Weight	18 lbs/1000ft	
Max. Attenuation	Freq. (MHz)	dB/100 ft
	1	1.4

Heatshrink Boot

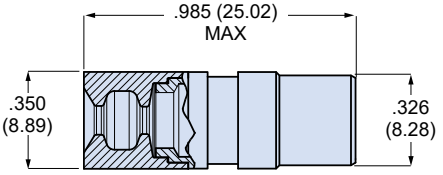
Supplied with contact. Slide onto cable before terminating contact. Slide onto contact after the cable is terminated. Apply heat to shrink the boot and melt the adhesive. Install contact into connector.



Sealing Boot

Sealing boot is ordered separately. Slide boot onto wire before terminating contact. After contact is installed in connector, slide boot forward into connector grommet to seal the contact cavity. Additional information on sealing boot is on the next page.

Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.090 - .130	2.3 - 3.3	859-042-01



SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #8 DIFFERENTIAL TWINAX CONTACTS

Differential twinax contacts accept shielded twisted pair databus cable. These snap-in, rear release contacts fit Series 80 Mighty Mouse connectors and Glenair MIL-DTL-38999 Series I, III, and IV connectors with size #8 cavities. Crimp termination. Gold-plated copper alloy , FEP insulator. Supplied unassembled with optional sealing boot.

Fig. 1
Pin Contact
853-014

Fig. 2
Socket Contact
853-013

Fig.	Description	Cable	Part Number		
			Basic No.	Dash No	Grommet Follower (Omit for None)
Fig. 1	Pin	See Cable Accommodation Table	853-014	-01 thru -13	F
			853-018	-01	
			853-025	-01 and -02	
Fig. 2	Socket		853-013	-01 thru -13	
			853-017	-01	
			853-024	-01 and -02	

Cable Accommodation				
Dash No	Cable Accommodation	Conductor AWG	Ref. Cable Impedance	Assembly Instructions
-01	Gore RCN 8945	24	100 Ohms	AI85007
-02	Gore GSC-03-83971-00	24		
-03	TE (Raychem) 10612	24	77 Ohms	
-04	TE (Raychem) 0024A0024	24	100 Ohms	
	Tensolite 24463/9P025X-2 (LD) S280W502-1	24		
-05	M17/176-00002	24	77 Ohms	
	5 M2022-003	24	75 Ohms	
-07	TE 2525B0524	24	125 Ohms	AI85050
-09	Gore DXN2603 / TE 0028S2664	26/28	100 Ohms	AI85007
-10	PIC E10222	22		AI85138
-11	963-102-30	30		AI85142
-12	Gore GSC-05-84308-00	26		AI85143
-13	Gore DXN2602	24		AI85007

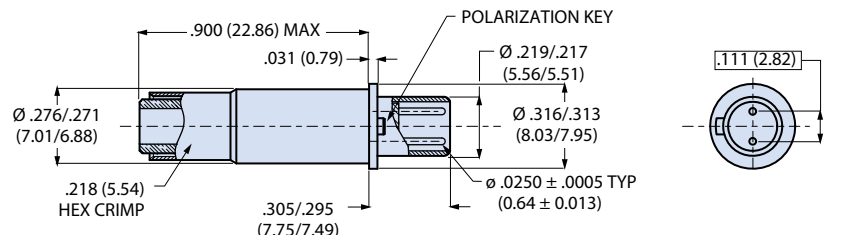
Material and Finish	
Contact Body and Center Contact	Copper alloy / Gold Plated
Crimp Sleeve	Brass or Equivalent / Gold Plated
Insulator, Sealing Boot	High Grade Rigid Dielectric
Sealing Boot Grommet	Fluorosilicone
Grommet Follower	Polyetherimide

Contact Specifications	
Characteristic Impedance (Ohms)	100 ± 10
Frequency Range	DC – 3 GHz
Insulation Resistance, Ambient Temperature	5000 megOhms minimum
Contact Resistance – Inner Contact*	15.0 milliOhms maximum initial @ 1 ampere
Contact Resistance – Outer Contact*	3.0 milliOhms maximum initial @ 12 amperes
Dielectric Withstanding Voltage	1000 VAC RMS between contacts, 500 VAC RMS between contacts and shell
Temperature Range	-65°C to +200°C
Durability	500 mating cycles
Corrosion (salt Fog)	EIA-364-26, condition B, 48 hours
Vibration	EIA-364-28, condition VI, letter J, 43g's
Shock	EIA-364-27, condition D, 300g's

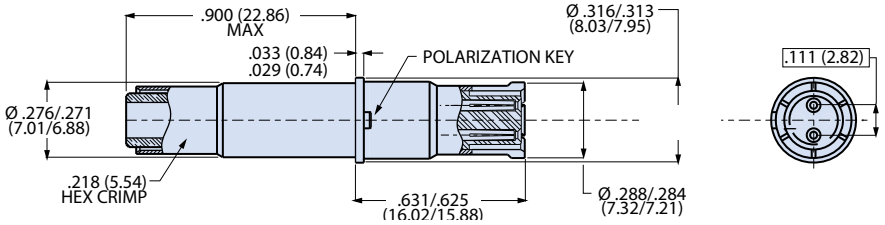
* Contacts are tested in mated condition at their extremities.

SIZE #8 DIFFERENTIAL TWINAX CONTACTS

Socket Contact 853-014

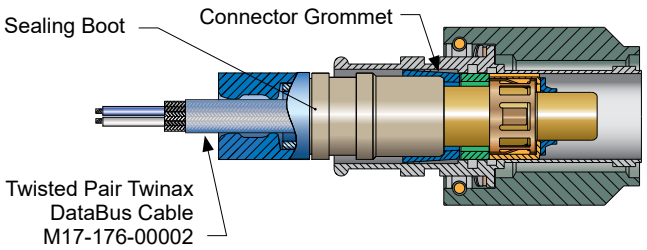


Socket Contact 853-013



About Differential Twinax Contacts

Differential twinax contacts are multi-pin contacts with two signal pins and an outer contact body. These contacts are used for 77 Ohm MIL-STD-1553 databus and 100 Ohm serial data transmission. The outer contact body provides a 360-degree EMI shield around the signal contacts. A raised boss on the contact body aligns the contact for proper mating. This boss fits into a slot inside the connector. All size 8 SuperNine and Mighty Mouse connector inserts have this alignment slot.



Sealing Boot Information

The sealing boot is necessary to prevent moisture and contamination from penetrating the connector. The sealing boot is ordered separately. DO NOT USE HEATSHRINK BOOT IF USING SEALING BOOT. The boot consists of a rigid dielectric sleeve and a fluorosilicone rubber grommet. After contact is installed slide boot forward into connector grommet to seal the contact cavity. "F" suffix on contact part number specifies contact supplied with sealing

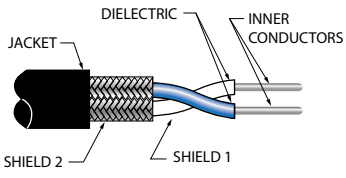
SuperNine® Contacts

MIL-DTL-38999 Series III Type

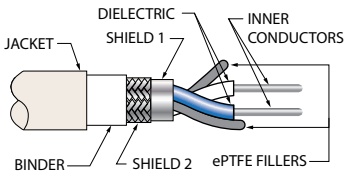
M39029 and Glenair signature contact solutions

8 DIFFERENTIAL TWINAX CONTACT 100 OHM CABLE

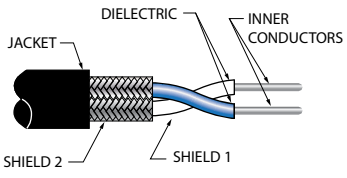
Gore RCN8945



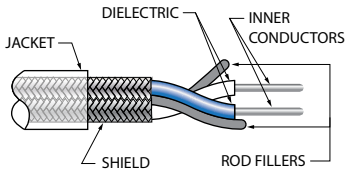
GSC-03-8I3971-00



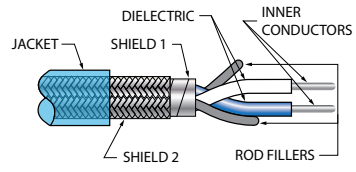
Raychem 10612



Raychem 0024A0024



Tensolite 24463/9P025X-2 (LD) S280W502-1



Cable Part Number	Gore RCN8945		Gore GSC-03-83971-00		Raychem 10612-24		Raychem 0024A0024		Tensolite 24463/9P025X-2 (LD) S280W502-1	
Impedance	100 ± 10		100 ±7		77 ± 5		100		100 ± 5.5 %	
Velocity of Propagation %	--		78		61		76		75	
Capacitance (pF/ft)	--		45 pF/ft.		30.0 pF/ft.		13.5 pF/ft.		13 pF/ft.	
Conductor Wire Size	AWG 24 (19/36) SPC[3]		AWG 24 (19/36) SCCA[1]		AWG 24 (19/36) SCCA[1]		AWG 24 (19/36) High-Strength SCCA[1]		AWG 24 (19/36) High-Strength SCCA[1]	
Dielectric	PTFE over ePTFE		FEP over expanded PTFE		Radiation-Crosslinked, Modified ETFE		Rayfoam H		PTFE over ePTFE	
Fillers	none		ePTFE		Radiation-Crosslinked Modified ETFE		Radiation-Crosslinked Modified ETFE		PTFE	
Shield	Shied 1: Aluminized Kapton		Shied 1: Aluminized Polyimide Foil		AWG 38 Tin-Coated Copper		38 AWG, Tin-Coated Copper		Shield 1: Flat Tin Coated Copper Braid	
	Shield 2: AWG 40 SPC[3] Braid		Shield 2: AWG 38 High Strength SSCA[1]						Shield 2: AWG 38A SPC[3] Braid	
Binder	None		ePTFE		None		None		None	
Jacket	Natural HSTF		FEP Color: White		Radiation-Crosslinked Modified ETFE Color: White		Modified FEP Color: Transparent White		Extruded FEP Color: Transparent Blue	
Outer Diameter	.162 (4.11) Max		0.13 (3.2)		.129 in (3.28)		.149 (3.78)		.150 (3.81)	
Temperature Rating	-55° C to + 200° C		-65° C to +200°C		150°C Max		- 55°C to +135°C		-55°C to 150° C	
Weight	TBD		27 g/m nominal		15.9 lbs/1000 ft (max)		18.1 lbs/1000 ft		19 lbs/1000 ft	
Max. Attenuation	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 m	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/75 ft
	100	6.7	1	2.7	1	1.4			6	1.8
	200	9.2	10	8.0						
	1000	22.0	20	11.2						
			100	25.2						

1. SCCA = silver-coated copper alloy 2. SPCA = silver-plated copper alloy 3. SPC = silver-plated copper

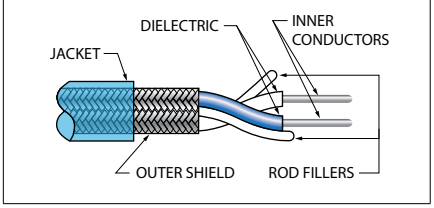
SuperNine® Contacts

MIL-DTL-38999 Series III Type

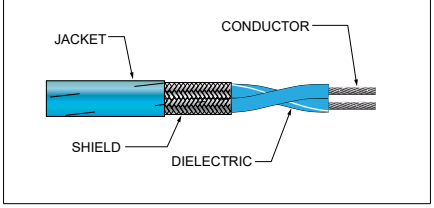
M39029 and Glenair signature contact solutions

SIZE #8 DIFFERENTIAL TWINAX CONTACT CABLE

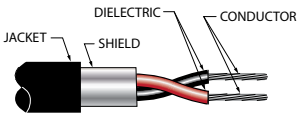
M17/176-00002



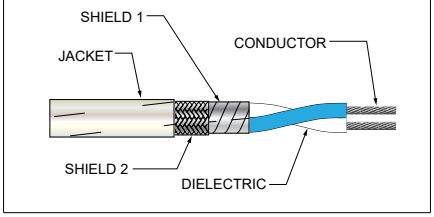
5M2022-003



Belden 1350SB



TE 252B0524

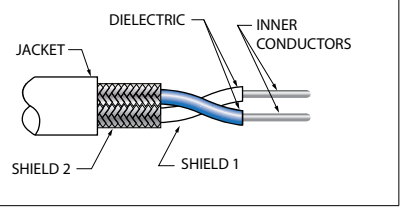


Cable Part Number	M17/176-00002		5M2022-003		Belden 1350SB		TE 252B0524	
Impedance	77 ± 3		75 ± 5		100		125 ± 10	
Velocity of Propagation %	71		55		79		78	
Capacitance	24 pF/ft.		24 pF/ft.		13.4 pF/ft.		11.0 pF/ft.	
Conductor Wire Size	AWG 24 (19/36) SCCA[1]		24 AWG (19/36) SPCA[2]		24 AWG (7/32) Tinned Copper		24 AWG, 19/36 High-Strength SCCA[1]	
Dielectric	PTFE		Extruded PTFE		PE		Rayfoam H	
Shield	Silver-Coated Copper Braid		38 AWG, SPC 90% Min. Coverage		Bi-Laminate Tape Beldfoil®		Aluminum Polyimide	
							AWG 38, Silver Coated Copper	
Jacket	Type XIII: PFA Color: Blue		Extruded FEP Color: Blue		.179 (4.55) LSZH, Color: Black		UXL - Modified ETFE	
Outer Diameter	.129 (3.28) ± .005 (0.13)		.128 (3.25)		***.179 (4.55)***			
Temperature Rating	-55° to +200°C		-65° C to +200° C		-30°C to +75°C		--	
Weight	.018 lb/ft		15.7 lb/1000 ft		20 lbs/1000 ft		22.7 lbs/1000ft	
Max. Attenuation	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft
	1	1.4	1	1.5	.768	.88	10	2.0
	3	2.1			1.4112	1.18		
	4	2.4			2.048	1.371		
	5	2.8			3.072	1.6		
	7	3.5			6.144	2.09		
	10	4.5			12.288	2.84		
					24.576	4.01		

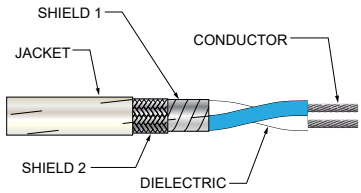
1. SCCA = silver-coated copper alloy 2. SPCA = silver-plated copper alloy

SIZE #8 DIFFERENTIAL TWINAX CONTACT CABLE

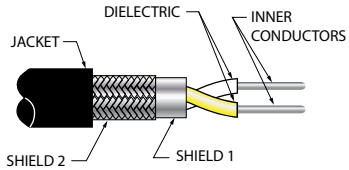
Gore DXN2603 /TE 0028S2664



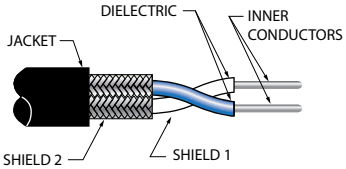
PIC E10222



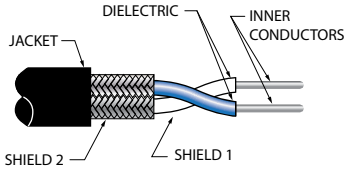
Glenair 963-102-30



Gore GSC-05-84308-00



Gore DXN2602



Cable Part Number	Gore DXN2603 / TE 0028S2664		PIC E10222		Glenair 963-102-30		Gore GSC-05-84308-00		Gore DXN2602	
Impedance	100 ± 10		100		100 ± 10		100 ± 4		100 ± 10	
Velocity of Propagation %	80		80.0		80.0		80.0		80	
Capacitance	13.0 pF/ft		13.0 pF/ft		15.0 pF/ft		45 (pF/m)		13.0 pF/ft	
SPCAConductor Wire Size	AWG 24 (19/36) SPCA[2]		AWG 22 stranded tin plated copper		AWG 30 (19/42) High-Strength SPCA[2]		AWG 26 (7/34) High-Strength SPCA[2]		AWG 24 (19/36) SPCA[2]	
Dielectric	PTFE over ePTFE		Foamed Fluoropolymer Insulation		PFA		ePTFE		PTFE over ePTFE	
Shield	AWG 40 SPC Braid		Sheild 1: Foil Shield Sheild 2: Tin-Plated Copper Braid Shield		Sheild 1: Aluminum/ Polyester Tape Sheild 2: AWG 40 High-Strength SPCA		AWG 40 Silver Plated copper 90% min		AWG 40 SPC Braid	
Jacket	EF100 PTFE Color: White		ETFE Color: White		PFA Color: Black		ETFE Color: Black		EF100 PTFE Color: White	
Outer Diameter			**0.19 (4.80)**		***.107 (2.72)***		0.12 (3.1)		.09 (2.29)	
Temperature Rating	-55°C to +200°C		-50°C to +150°C		105° C Max		-200°C to +180°C		-55°C to +200°C	
Weight	11.3 lbs/1000 ft		2.3 lbs/100 ft		N/A		18 g/m max.		11.3 lbs/1000 ft	
Max. Attenuation	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 m	Freq. (MHz)	dB/100 ft
	100	7.6	10	1.5	500	40	20	17	100	7.6
	200	10.7	100	5.4	1000	56	35	22	200	10.7
	500	17.3					70	30	500	17.3
	1000	25.0					80	32	1000	25.0
							100	36		

1. SCC = silver-coated copper 2. SPCA = silver-plated copper alloy 3. SPC = silver-plated copper

SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #8 QUADRAX CONTACTS

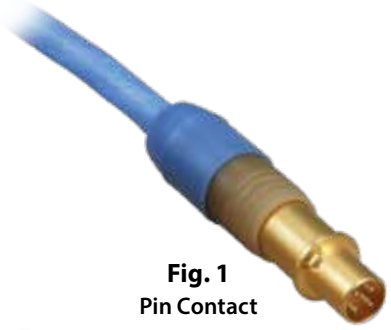


Fig. 1
Pin Contact
854-001

Fig. 2
Socket Contact
854-002

100 Ohm quadrax contacts accept standard flight-grade star quad cable. These snap-in, rear release contacts fit Glenair Series 800 through 805 Mighty Mouse connectors (not compatible with Series 806) with size #8 keyed insulators to properly align contact. Crimp termination. Contact has in-line key for alignment in connector. Gold-plated copper alloy , thermoplastic insulators. Supplied as unassembled kit.

Figure	Cable Accommodation	Contact Type	Part Number Contact Only	P/N Contact and Sealing Boot	Wire AWG	Cable OD
1	Tensolite NF22Q100 Draka F-4704-7	Pin	854-001-05	854-001-05F	22	.190 (4.83)
1	PIC E51424 Tensolite NF24Q100	Pin	854-001-02	854-001-02F	24	.163 (4.14)
1	PIC E50424 Draka F 4704-4	Pin	854-001-04	854-001-04F	24	.175 (4.44)
1	PIC E51426 Tensolite NF26Q100	Pin	854-001-01	854-001-01F	26	.143 (3.63)
1	Draka F 4704-6	Pin	854-001-03	854-001-03F	26	.149 (3.78)
2	Tensolite NF22Q100 Draka F-4704-7	Socket	854-002-05	854-002-05F	22	.190 (4.83)
2	PIC E51424 Tensolite NF24Q100	Socket	854-002-02	854-002-02F	24	.163 (4.14)
2	PIC E50424 Draka F 4704-4	Socket	854-002-04	854-002-04F	24	.175 (4.44)
2	PIC E51426 Tensolite NF26Q100	Socket	854-002-01	854-002-01F	26	.143 (3.63)
2	Draka F 4704-6	Socket	854-002-03	854-002-03F	26	.149 (3.78)

Material And Finish	
Contact Body, Inner Contact	Copper Alloy / Gold Plated
Crimp Ferrule	Brass or Equivalent / Gold Plated
Insulator	PTFE, Polyetherimide or equivalent
Sealing Boot Grommet	Fluorosilicone
Grommet Follower	Polyetherimide

Contact Specifications	
Characteristic Impedance	100 Ohms ± 10 Ohms
Frequency Range	DC – 3 GHz
Insulation Resistance, Ambient Temperature	5000 megOhms minimum
Contact Resistance – Inner Contact	15.0 milliOhms maximum initial @ 1ampere
Contact Resistance – Outer Contact	3.0 milliOhms maximum initial @ 12 amperes
Dielectric Withstanding Voltage	1000 Vac RMS between contacts, 500 Vac RMS between contacts and shell
Temperature Range	-65°C to +200°C
Durability	500 mating cycles
Corrosion (salt Fog)	EIA-364-26, condition B, 48 hours
Vibration	EIA-364-28, condition VI, letter J, 43g's
Shock	EIA-364-27, condition D, 300g's

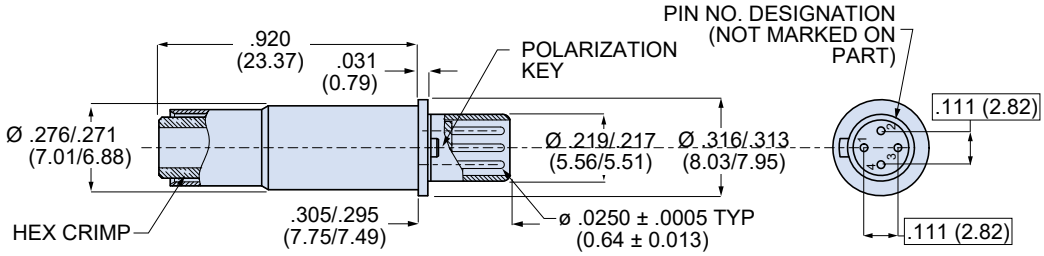
SuperNine® Contacts

MIL-DTL-38999 Series III Type

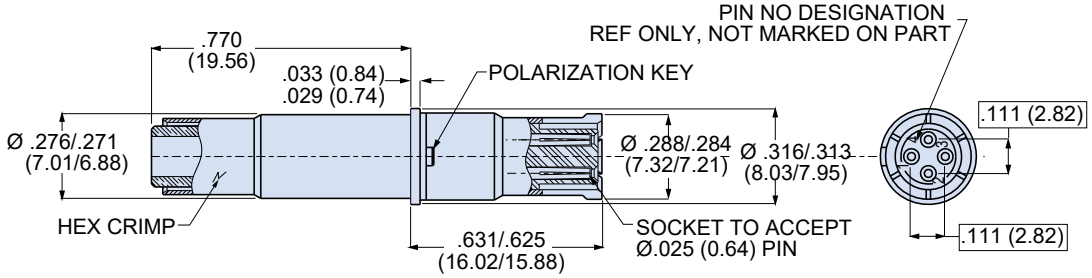
M39029 and Glenair signature contact solutions

SIZE #8 QUADRAX CONTACTS

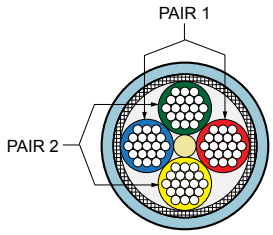
854-001 Pin



854-002 Socket



Arinc 664 Star Quad Cable



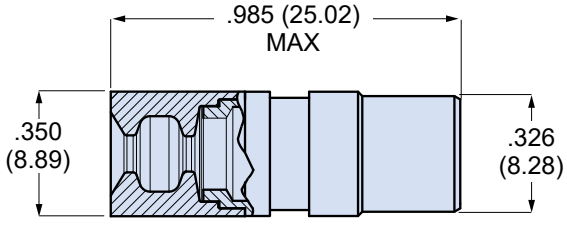
About Quadrax Contacts and Star Quad Cable

Quadrax contacts are size 8 multi-pin contacts with four signal pins and an outer contact body. These contacts are used for ARINC 664 100BASE-T Ethernet. Each quadrax contact yields one Ethernet port. The outer contact body provides a 360-degree EMI shield around the signal contacts. Star quad cables have four parallel wires uniformly twisted around a center filler. These 100 Ohm high performance 100BASE-T cables are designed for use in aircraft systems. The cable has two shields– a flat tinned copper braid inner shield and an outer tinned copper overbraid. The FEP jacket meets FAA flammability requirements.

Sealing Boot

Optional sealing boot is recommended. Slide boot onto wire before terminating contact. After contact is installed in connector, slide boot forward into connector grommet to seal the contact cavity. "F" suffix on contact part number specifies contact supplied with 859-042-02 sealing boot.

Dimensions		
Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.090 - .130	2.3 - 3.3	859-042-01
.130 - .170	3.3 - 4.3	859-042-02
.170 - .205	4.3 - 5.2	859-042-03



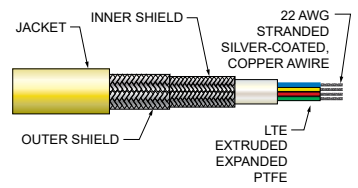
SuperNine® Contacts

MIL-DTL-38999 Series III Type

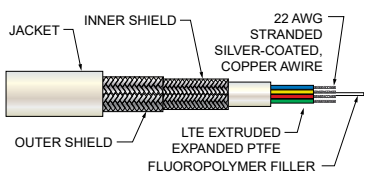
M39029 and Glenair signature contact solutions

SIZE #8, 100 OHM QUADRAX CONTACT CABLE

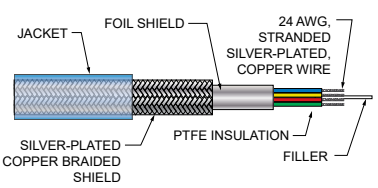
Tensolite NF22Q100 (Draka F-4704-7)



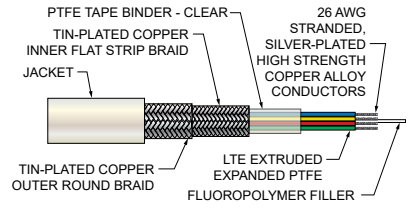
PIC E51424



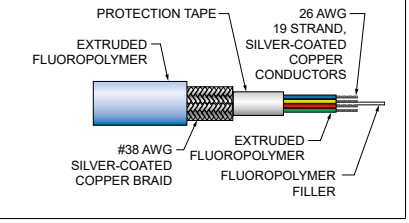
PIC E50424 or Draka F 4704-4



PIC E51426 or Tensolite NF26Q100



Draka F 4704-6



Cable Part Number	Tensolite NF22Q100 (Draka F-4704-7)		PIC E51424		PIC E50424 Draka F 4704-4		PIC E51426 Tensolite NF26Q100		Draka F 4704-6	
Impedance	100		100		100		100		100	
Velocity of Propagation %	80.0		80.0		69.5		70.0		65	
Capacitance (pF/ft)	13.0		13.0		13.0		14.5		--	
Conductor Wire Size	AWG 22		AWG 24		AWG 24		AWG 26		26	
Conductor Material	SCC[1]		Stranded SPCA[2]		Stranded SPC[3]		Stranded SPCA[2]		19 Strand SCC[1]	
Dielectric	PTFE		Fluoropolymer		PTFE		Fluoropolymer		Fluoropolymer	
Inner Shield Coverage	--		90% Braid		100% Foil		90% Braid		--	
Outer Shield Coverage	--		85 Braid		85% Braid		85 Braid		--	
Pair #1	Red, Blue		Red, Blue		Red, Blue		Red, Blue		Red, Blue	
Pair #2	Yellow, Green		Yellow, Green		Yellow, Green		Yellow, Green		Yellow, Green	
Jacket	FEP		ETFE		Fluoropolymer		ETFE		Extruded Fluoropolymer	
Outer Diameter	.190 (4.83)		0.16 (4.06)		.17 (4.32)		0.14 (3.48)		--	
Temperature Rating	-55°C to 200°C		-55°C to 150°C		-55°C to 200°C		-55°C to 150°C		-65°C to 125°C	
Weight	34.5 lbs/1000 ft		2.2 lbs/100 ft		2.7 lbs/100 ft		1.8 lbs/100 ft		--	
Max. Attenuation	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft	Freq. (MHz)	dB/100 ft
			10	2.3/2.7	10	2.2/3.0	10	2.8/3.2	1	.092
	100	6.4/7.3	100	8.0/9.2	100	7.1/8.2	100	9.6/11.0	4	1.83
									10	2.75
									16	3.66
									20	4.27
									62.5	7.62
									100	9.15

1. SCC = silver-coated copper 2. SPCA = silver-plated copper alloy 3. SPC = silver-plated copper

THERMOCOUPLE CONTACTS

How-To-Order Thermocouple Contacts					
Type	Mating End Size	Wire Accomodation	Glenair Part Number	Material	Finish
Pin	23	23 AWG	857-104A	KN	None
	23	23 AWG	857-104C	KP	None
	22	22-28 AWG	850-181-22-470	JN	None
	22	22-28 AWG	850-181-22-471	KN	None
	22	22-28 AWG	850-181-22-472	KP	None
	22	22-28 AWG	850-181-22-473	JP	Cadmium Plate*
	20	20-24 AWG	850-181-20-474	JN	None
	20	20-24 AWG	850-181-20-475	KN	None
	20	20-24 AWG	850-181-20-476	KP	None
	20	20-24 AWG	850-181-20-477	JP	Cadmium Plate*
	16	16-20 AWG	850-181-16-478	JN	None
	16	16-20 AWG	850-181-16-479	KN	None
	16	16-20 AWG	850-181-16-480	KP	None
	16	16-20 AWG	850-181-16-481	JP	Cadmium Plate*
Socket	23	23 AWG	857-105A	KN	None
	23	23 AWG	857-105C	KP	None
	22	22-28 AWG	850-183-22-482	JN	None
	22	22-28 AWG	850-183-22-483	KN	None
	22	22-28 AWG	850-183-22-484	KP	None
	22	22-28 AWG	850-183-22-485	JP	Cadmium Plate*
	20	20-24 AWG	850-183-20-486	JN	None
	20	20-24 AWG	850-183-20-487	KN	None
	20	20-24 AWG	850-183-20-488	KP	None
	20	20-24 AWG	850-183-20-489	JP	Cadmium Plate*
	16	16-20 AWG	853-183-16-490	JN	None
	16	16-20 AWG	853-183-16-491	KN	None
	16	16-20 AWG	853-183-16-492	KP	None
	16	16-20 AWG	853-183-16-493	JP	Cadmium Plate*

* Chromate clear coat

Per AS39029 spec, the composition designations have been changed as listed below:

- JN =Type J negative (formerly constantan)
- KN =Type K negative (formerly alumel)
- KP =Type K positive (formerly chromel)
- JP =Type J positive (formerly iron)

MATERIAL AND FINISH

Thermocouple contacts: constanston, alumel, and chromel unplated, per ANSI 96.1. Iron contacts with cadmium finish
Socket contact hood: stainless steel, passivated per AMS-QQ-P-35.

SuperNine® Contacts

MIL-DTL-38999 Series III Type

M39029 and Glenair signature contact solutions

SIZE #12 PNEUMATIC CONTACTS

Cavity F contains a Pitot tube Socket contact

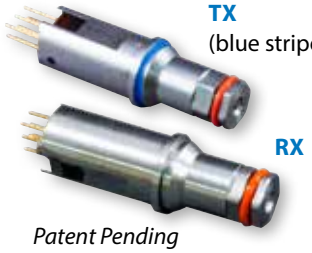
Stainless steel pneumatic contacts fit MIL-DTL-38999 connectors. Contacts snap into size #12 cavities. Attach to 3⁄32 inch (2.38) diameter tubing. Socket contact has fluorosilicone O-ring and PTFE backup washers. Originally designed for pitot tube connections, these pneumatic contacts are rated for 100 psi maximum air pressure. No installation tool is required. Remove contacts with plastic extraction tool 809-132 (M81969/14-04).

Contact Type	For Use In	Part Number
Pin	D38999 Type, All Series	830-003[1]

1. 830-003 supersedes 857-011

Contact Type	For Use In	Part Number
Socket	D38999 Type Series I, III, IV	830-005

SIZE #8 CAVITY OPTOELECTRONIC CONTACT



Patent Pending

Size 8 Cavity Optoelectronic contacts transmit and receive differential CML electrical signals over Multimode fiber optic cable. Transmitters consist of a laser driver with a temperature compensation circuit to maintain optical power over the entire operating temperature range, and a 850nm VCSEL laser. Receivers consist of an 850nm PIN Photo Detector, a Transimpedance Amplifier with automatic gain control circuit, and a Limiting Amplifier. Differential output data signals are CML compatible. The transmitter has a Tx Disable pin to turn off transmitter output and a Tx Fault pin to signal a fault condition. Receiver includes a CMOS compatible Loss of Signal Indicator to prevent invalid data.

MATERIAL/FINISH

Shell: 300CRES/Passivate or NM6
Seal: Silicone elastomer
Ferrule & sleeve: Zirconia ceramic
PC tails: Copper alloy/gold plated
PCB flex: FR4 & Polyimide
Solder type: RoHS compliant Sn95/Sb5 (232°C melting temp) & RoHS compliant Sn96.5/Ag3.0/Cu0.5 (217° melting)

How-To-Order Size 8 Transmitter Optoelectronic Contacts		
Type	Signal Type	Glenair Part Number
Transmitter	1.25 Gbps	050-301-01-T
	2.50 Gbps	050-301-02-T
	3.20 Gbps	050-301-03-T
	4.25 Gbps	050-301-04-T

How-To-Order Size 8 Receiver Optoelectronic Contacts		
Type	Signal Type	Glenair Part Number
Receiver	1.25 Gbps	050-301-01-R
	2.50 Gbps	050-301-02-R
	3.20 Gbps	050-301-03-R
	4.25 Gbps	050-301-04-R