



**853-013 and 853-014**  
**Mighty Mouse Connectors with Size #8 Quadrax**  
**and Differential Twinax Contacts**  
**Size #8 Differential Twinax Contacts**

**SIZE #8 DIFFERENTIAL TWINAX CONTACTS**



**Fig. 1**  
**Pin Contact**  
**853-014**



**Fig. 2**  
**Socket Contact**  
**853-013**

100 ohm differential twinax contacts accept shielded twisted pair databus cable. These snap-in, rear release contacts fit Glenair Series 80 Mighty Mouse connectors, Glenair 257-497, and Glenair 257-606 MIL-DTL-38999-type connectors with keyed inserts. Crimp termination. Gold-plated copper alloy, FEP insulator. Supplied unassembled with optional sealing boot.

Figure	Description	Cable Accommodation	Part Number Contact Only	Part Number Contact and Sealing Boot
Fig. 1	Pin Contact	Gore RCN 8945	<a href="#">853-014-01</a>	<a href="#">853-014-01F</a>
Fig. 1	Pin Contact	Gore GSC-03-83971-00	<a href="#">853-014-02</a>	<a href="#">853-014-02F</a>
Fig. 1	Pin Contact	M17/176-00002	<a href="#">853-014-05</a>	<a href="#">853-014-05F</a>
Fig. 1	Pin Contact	TE (Raychem) 0024A0024	<a href="#">853-014-04</a>	<a href="#">853-014-04F</a>
Fig. 2	Socket Contact	Gore RCN 8945	<a href="#">853-013-01</a>	<a href="#">853-013-01F</a>
Fig. 2	Socket Contact	Gore GSC-03-83971-00	<a href="#">853-013-02</a>	<a href="#">853-013-02F</a>
Fig. 2	Socket Contact	M17/176-00002	<a href="#">853-013-05</a>	<a href="#">853-013-05F</a>
Fig. 2	Socket Contact	TE (Raychem) 0024A0024	<a href="#">853-013-04</a>	<a href="#">853-013-04F</a>

Material And Finish	
Inner and Outer Contact, Crimp Ferrule	Copper alloy, 50 microinches gold over nickel
Insulator, Sealing Boot	High grade engineering thermoplastic
Sealing Boot Grommet	Fluorosilicone

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

**CONTACT REMOVAL TOOL**

Plastic tool extracts wired contact from connector. First, remove sealing boot, then insert tool from rear of connector.

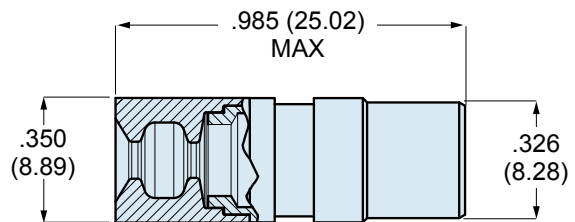
Size	Part Number	Military Part Number
#8	<a href="#">859-049</a>	M81969/14-12



**SEALING BOOT**

Sealing boot provides wire seal. 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 boot. See table for wire size.

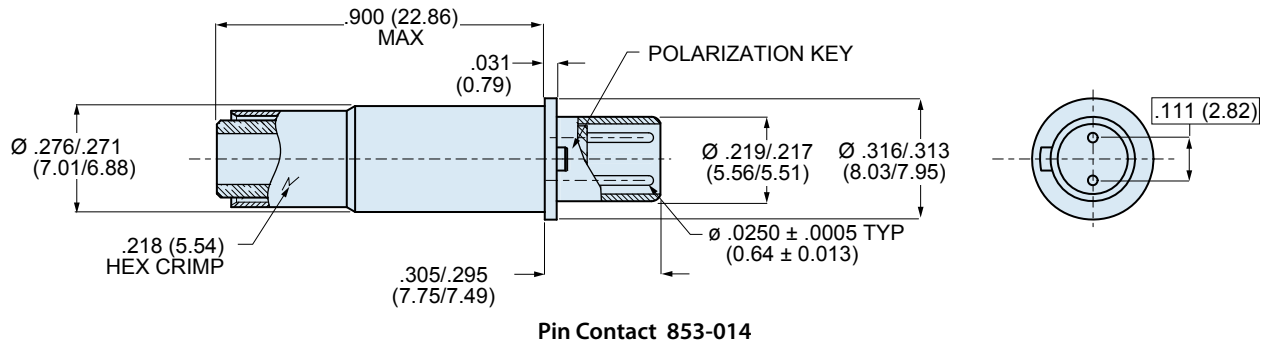
Wire Dia. (in.)	Wire Dia. (mm.)	Part Number
.090 - .130	2.3 - 3.3	<a href="#">859-042-01</a>
.130 - .170	3.3 - 4.3	<a href="#">859-042-02</a>
.170 - .205	4.3 - 5.2	<a href="#">859-042-03</a>



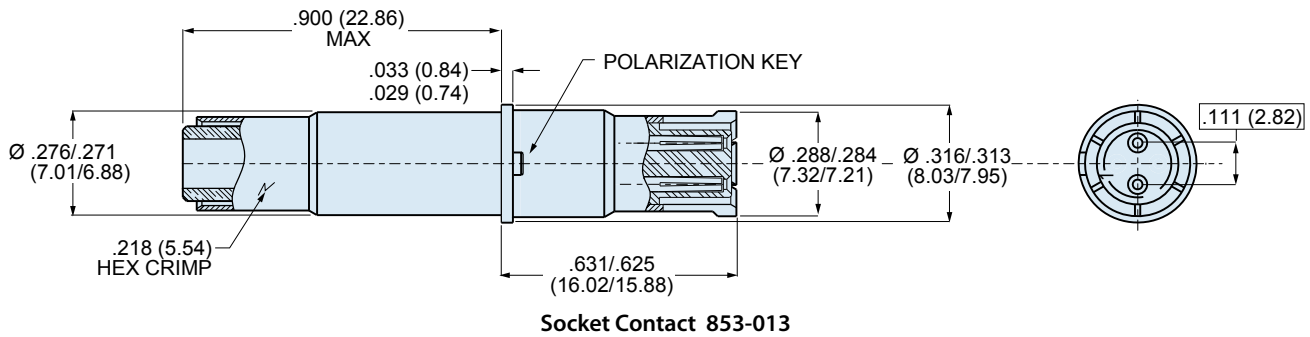
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Size #8  
 Quadrax/Twinax



Pin Contact 853-014



Socket Contact 853-013

TERMINATION TOOLS FOR SIZE #8 QUADRIX CONTACTS



**A** M22520/2-01 crimper for inner contacts. Requires **B** positioner, ordered separately. Length is 6.75 inches, weight is approx. 10 oz.

**B** Positioner. Use with **A** crimper, ordered separately. Positioner holds contact at proper depth.

**C** Parallel action tool terminates cable shield. Use with **D** hex crimp dies. 11 inches OAL, 2.0 pounds. Anodized aluminum frame, steel mechanism, plastic handles. Accepts all M22520/5 die sets.

**D** Hex die set for terminating cable shield. Hardened steel, black oxide finish. Closure A is .231 (5.87), closure B is .218 (5.54).

Figure	Part Number	Military Part Number	Daniels Part Number
A	<a href="#">809-015</a>	M22520/2-01	AFM8
B	<a href="#">809-240</a>	M22520/2-37	K709
C	<a href="#">809-129</a>	M22520/5-01	HX4
D	<a href="#">859-047</a>	M22520/5-45	Y143

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 Mighty Mouse connector inserts have this alignment slot.

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