

21-33384-441 (PIN)  
21-33385-441 (SOCKET)

Contact, Pin and Socket, Differential Quadax,  
Type M38999 Series I & III, Size 8  
Installation Instructions

See table on reverse side for twinax cable recommended, tool selector settings, crimping tool, positioner and insertion/removal tool information.

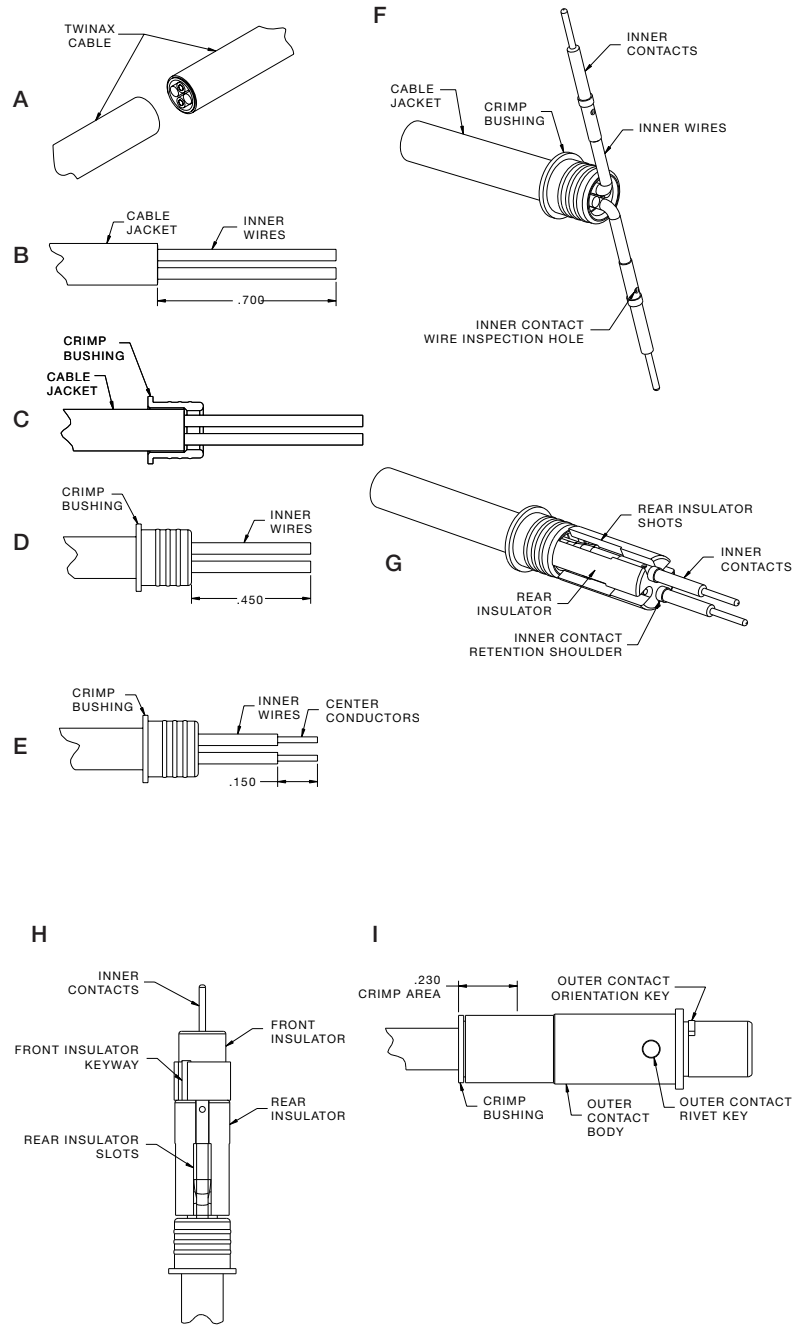
- A 1. Cut cable for assembly of differential quadax contacts.
- B 1. Rubber end first, slide piggyback grommet seal back over cable jacket (not illustrated).
2. Strip cable jacket to expose cable inner wires as illustrated. Ends must be cut cleanly and at right angles to the axial plane of the cable. Cable must not be deformed while making cuts.
- B 3. Cut away any inner wraps and/or cable fillers as close to cable jacket as possible
- C 1. Slide crimp bushing, large diameter first, over cable inner wires. Thread crimp bushing onto cable jacket until cable jacket butts inside shoulder of crimp bushing.
- D 1. Cut inner wires to dimension shown. All wire must be cut to equal length. It may be helpful to cut one wire to length, then cut remaining wire to equal length as the first wire.
- E 1. Strip inner wires to expose center conductors as illustrated. All wires must be stripped to equal length.
- F 1. Carefully splay inner wires perpendicular to the axis of the cable as illustrated
2. Assemble inner contact over cable center conductor until fully seated against inner wire insulation. Observe center conductor through the contact's wire inspection hole, to make certain center conductor is properly positioned.
- F 3. Crimp inner contact to center conductor using crimp tools listed in table. Repeat steps f2 & f3 until all inner contacts are crimped.
- G 1. Position rear insulator against crimp bushing as illustrated. Make certain insulator slots are aligned with splayed inner contact wires. One-by-one, position wired inner contacts inside insulator slots as shown. The inner contact's retention shoulder must be positioned in front of the insulator's front surface as illustrated.
- G 2. Optional (not illustrated): 2 unwired inner contacts can be assembled into the 2 unoccupied insulator slots if desired (retention shoulders must be positioned in

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front of the insulator's front surface), however this will make it difficult to visually determine the wired inner contact pair after assembly completion.

- H 1. With inner contacts positioned inside rear insulator slots, assemble front insulator over the inner contacts as shown. The front insulator must butt the rear insulator and inner contact retention shoulders must enter front insulator bores.
2. Observe the front insulator's keyway. When the inner assembly is held in the vertical orientation (with inner contacts on top) the inner pin contact with the insulator keyway to its left will be positioned at the #4 inner pin position shown in the horizontal inner contact numbering view (for inner socket contacts, the insulator keyway should be positioned to the right of the inner socket desired at the #4 inner socket position shown in the horizontal inner contact numbering view). For vertical inner contact alignment, position the front insulator keyway to the right of the inner pin desired at the #1 inner pin position shown in the vertical inner contact numbering view. (for inner socket contacts, the insulator keyway should be positioned to the left of the inner socket desired at the #1 inner socket position shown in the vertical inner contact numbering view).
- I 1. Align front insulator keyway with the outer contact's rivet key. Slide the inner contact assembly inside the outer contact body until fully seated. Observe the mating end of the assembly to make certain the inner contacts are aligned as desired and as shown in the corresponding inner contact numbering view.
2. Crimp outer contact body in the area indicated using crimp tools listed in table.

Amphenol Part Number	Description	Twinax Cable Recommended	Inner Crimp Tools		Outer Crimp Tools	
			Tool (Setting)	Positioner	Tool	Die Set (Location)
21-033384-441	Differential Quadax Pin (100 OHM)	Champlain 15-08277-X (100 OHM)	M22520/2-01 (6)	Daniels K709 (M22520/2-37)	M22520/5-01	M22520/5-45 (A)
21-033385-441	Differential Quadax Socket (100 OHM)					

Contact Insertion into Connector

Contacts are inserted by hand. Insert the contact assembly into the proper rear grommet hole. Contact must be aligned with hole and not inserted at an angle. The contact's orientation key must be in vertical alignment with the connector's main key or keyway (holding contact key and connector key/keyway at "12 o'clock" orientation position is recommended). Push forward until contact is felt to snap into position within the insert. Contact may need to be slightly rotated to properly align contact orientation key with connector insert keyway. Gently tug on cable to assure retention. Slide piggyback grommet seal into position inside the connector grommet and over the crimped end of the contact.

Contact Removal from Connector

Remove piggyback grommet seal from the connector grommet. Position removal tool part number MIL-I-81969/14-12, Daniels DRK-264-8, around cable and slide tool toward connector until tool tips enter rear grommet and comes to a positive stop on the contact. Grip cable and simultaneously remove tool, contact and cable.

Amphenol

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SUGGESTED INNER CONTACT NUMBERING INFORMATION

