

1. INTRODUCTION

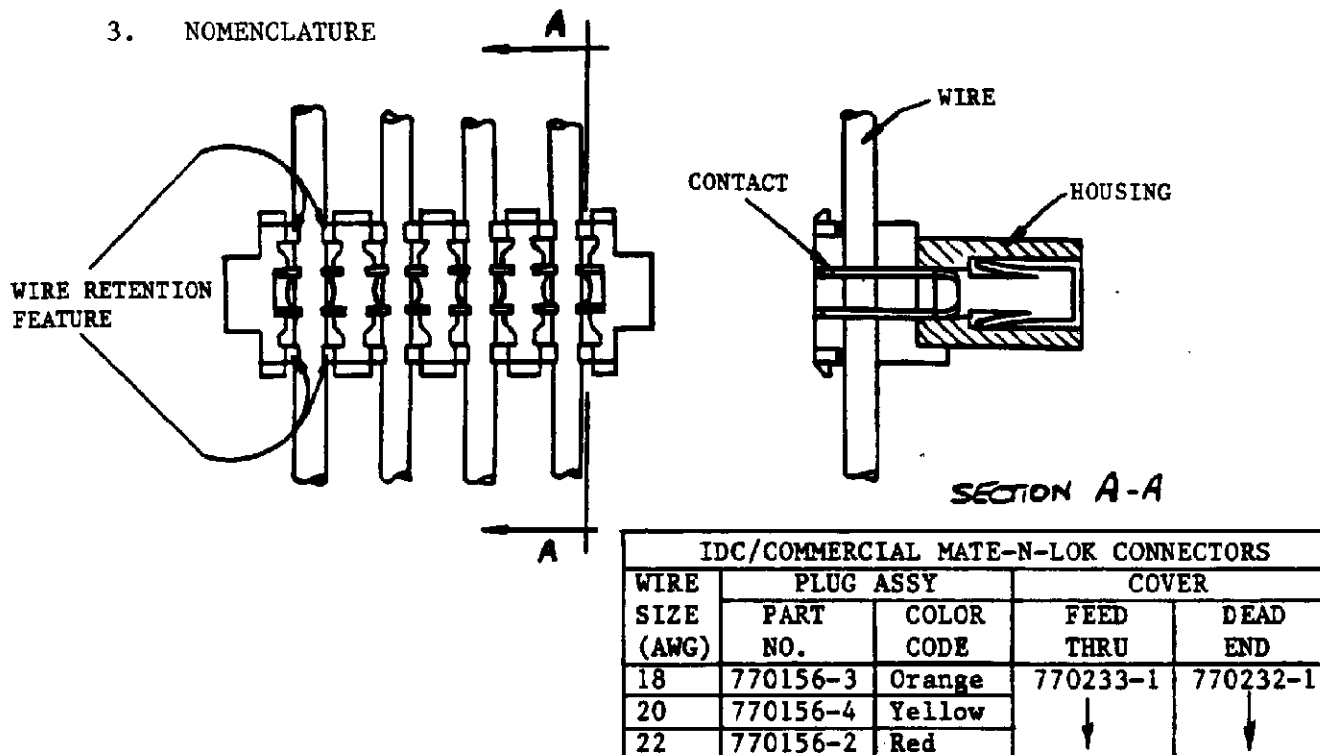
This specification covers the requirements for application of wire to AMP* IDC/Commercial MATE-N-LOK* connectors. These requirements are applicable to hand or automatic machine application tools. For specific connector assembly part numbers and wire sizes see Figure 1.

NOTE All dimensions are in inches unless otherwise specified. Tolerances are ± 0.005 , angles are $\pm 1^\circ$, unless otherwise specified.

2. REFERENCE DOCUMENTS

- 2.1. For applicable performance requirements, see AMP Product Specification 108-49000.
- 2.2. For terminating head operation procedures refer to AMP Instruction Sheet IS 3186.
- 2.3. For pistol grip handle assembly procedures refer to the instruction sheet packaged with the assembly.

3. NOMENCLATURE



IDC/COMMERCIAL MATE-N-LOK CONNECTORS				
WIRE SIZE (AWG)	PLUG ASSY		COVER	
	PART NO.	COLOR CODE	FEED THRU	DEAD END
18	770156-3	Orange	770233-1	770232-1
20	770156-4	Yellow	↓	↓
22	770156-2	Red	↓	↓

Fig. 1 Nomenclature

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				APPLICATION SPECIFICATION		AMP AMP INCORPORATED Harrisburg, Pa. 17105	
				ENGINEERING APPROVAL & DATE William Batty 1/14/87		NO. 114-49001	
				SHEET 1 OF 3		TITLE IDC/COMMERCIAL MATE-N-LOK CONNECTOR	
LTR.	REVISION RECORD	APP.	DATE				

4. REQUIREMENTS

3.1. Wiring Specifics

These connectors accept 22-18 AWG tin-plated solid, concentric fused-stranded and concentric stranded wire with PVC thermoplastic insulation having a maximum outside diameter of .095 in.

Stranded wire approved by AMP Engineering per UL Style 1007 and 1061 is 18 AWG 7, 16, and 19 stranded, 20 AWG 7, 10, and 19 stranded, and 22 AWG 7 and 19 stranded. Other wire sizes, styles, and insulation materials shall be approved by AMP Engineering.

3.2. Assembly Specifics

A. Wire Preparation/Handling

These connectors use the Insulation Displacement Technique which is a method of inserting unstripped wire into a slotted contact beam to form a reliable electrical connection between the conductor and contact. No insulation stripping is required for feed thru or dead end applications.

B. Tooling

After the terminating head is inserted into the pistol grip handle assembly, it serves as a guide and support for the connector during termination. Refer to the instruction sheet packaged with the tooling for terminating procedures, paying special attention to product orientation, i.e. the long and short ribs on the housing.

C. Cover Installation

The appropriate feed-thru or dead-end cover should always be installed to improve wire retention and safety. See Figure 3.

3.3. Inspection

A. Wire Terminations

After termination, wire shall meet the requirements specified in Figure 2.

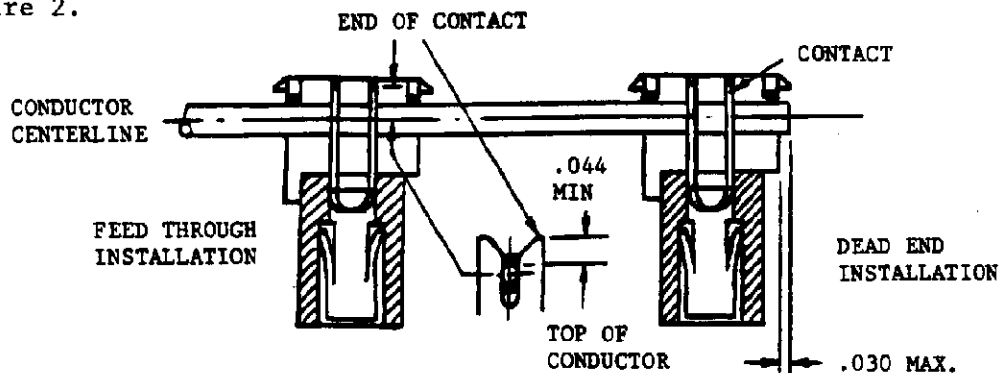


Fig. 2 Wire Termination

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B. Contact Damage

There shall be no evidence of physical damage or distortion to any portion of the contact after wire termination.

C. Housing Damage

1. There shall be no cracks, breaks, or other visible damage to the housing due to wire termination.
2. Skiving of plastic on the inside wall of the housing cavity is permissible provided that conditions specified in Para 3.3.C.1 are met.

D. Broken Strands

There shall be no broken strands in the conductor after terminations.

E. Exposed Conductors and Contacts

Covers should always be installed to reduce the exposed areas of conductors and contacts. See Figure 3.

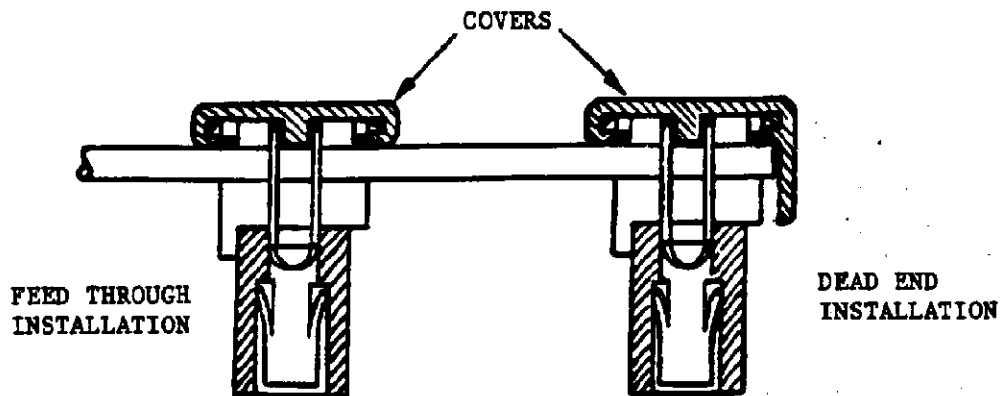


Fig. 3 Exposed Conductors

F. Conductor Insulation

Conductor insulation shall be contained within the confines of the wire retention feature as indicated in Figure 4.

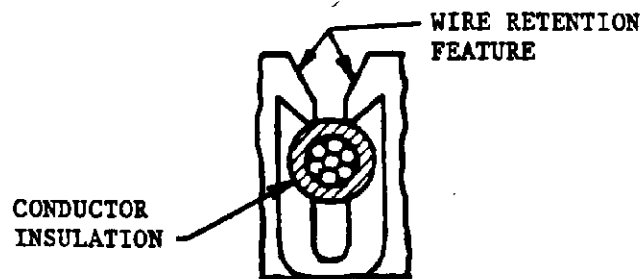


Fig. 4 Conductor Insulation