

# APPLICATION SPECIFICATION

## 1. SCOPE

### 1.1. Content

This specification covers the requirements for application of PICABOND\* regular and weather resistant connectors. These requirements are applicable to hand actuated or automated tools. For specific connector part numbers and wire sizes relative to the products covered by this specification see Figure 4.

### 1.2. Design

These connectors consist of an insulated open-barrel, metal channel with 4 sets of double slotted lances protruding from the base of the channel. Sidewalls of the connector are composed of a plurality of shaped elements (legs and stuffers). Elements serve to hold and stuff the wires positioned between the sidewalls into the slots formed by the lances during the crimping cycle.

### 1.3. Reference Specifications

For applicable performance requirements see AMP Specification 108-6011.

## 2. NOMENCLATURE

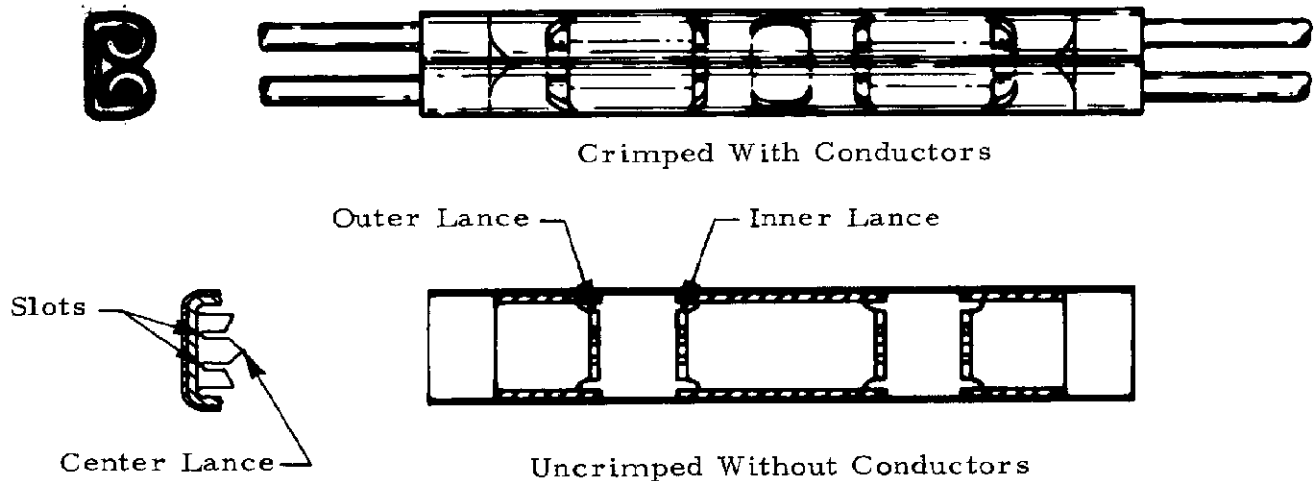


Figure 1

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|                              |  |  |  |  |  |                |          |  |
|------------------------------|--|--|--|--|--|----------------|----------|--|
|                              |  |  |  | DR<br><i>R. E. Fritz</i> 10/29/80  | <b>AMP</b>   AMP INCORPORATED<br>Harrisburg, Pa. |                |          |  |
|                              |  |  |  | CHK<br><i>Harold Smith</i> 10/29/80  |  |                |          |  |
|                              |  |  |  | APP<br><i>J. S. Kipatnick</i> 10/29/80   | LOC<br><b>B</b>                                  | NO<br><b>A</b> | 114-6002 |  |
|                              |  |  |  | NAME<br>CONNECTOR, PICABOND, REGULAR<br>AND WEATHER RESISTANT,<br>APPLICATION OF |  |                |          |  |
| A Rev Para 1.2. and Figure 1 |  |  |  | SHEET 1 OF 5   |  |                |          |  |
| LTR REVISION RECORD          |  |  |  | APP  | DATE   |                |          |  |

### 3. REQUIREMENTS

#### 3.1. Splicing

Connector can be used to make any of the splices indicated in Figure 2 and permits tapping applications without interruption of service.

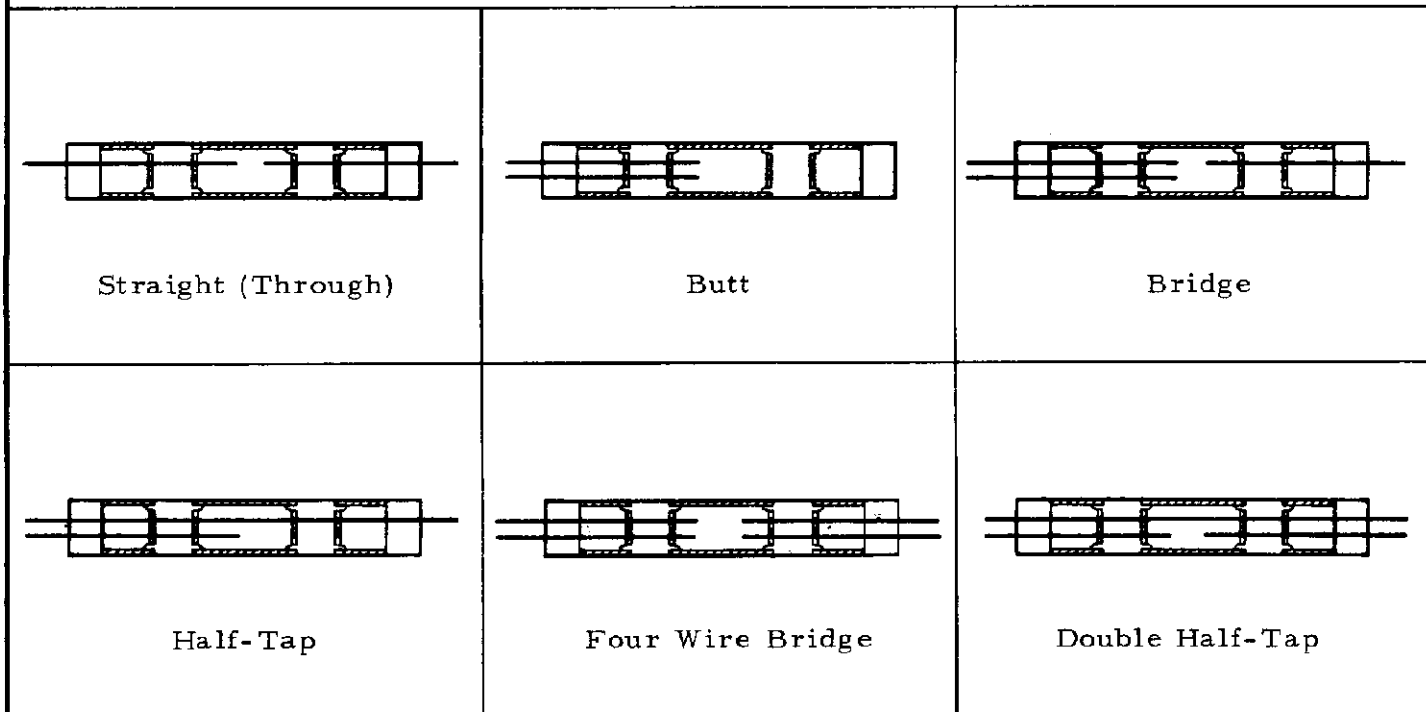


Figure 2

#### 3.2. Tooling

These connectors shall be mechanically crimped on insulated solid copper wires using a hand actuated or automated tool. Applicator tool usage and adjustment is specified on the appropriate instruction sheet furnished with the applicator. Only AMP manufactured or approved applicator shall be used.

#### 3.3. Application

Precision applicator tooling automatically trims wires to length during the crimping cycle, while the 4 sets of double slotted lances within the connector displace the wire insulation, providing 4 reliable electrical contact points for each wire. Sides of the connector are crimped over the wires providing a mechanically strong connection.

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### 3.4. Wire Insulation

Wire insulation may be plastic, pulp or paper.

### 3.5. Crimp Height

- A. Crimp height shall be checked using AMP gage PN 679412-2 supplied with each tool and measured as indicated in Figure 3. This gage is available from AMP Incorporated by ordering kit PN 22930-1 which is gage PN 679412-2 with a cord attached.
- B. Crimp height shall be checked immediately after crimping as follows:
- (1) Select gage end with color dot that matches connector color (green, orange or purple connector located in end with boss; red or yellow located in end without boss).
  - (2) Insert connector so that seam of connector faces single gage tooth and double rib (external) on gage. Connector end shall be flush with side of gage.
  - (3) Hold free end of connector and slide gage off using very slight force. Repeat on other end of connector; little or no drag should be felt.
  - (4) If either end sticks in gage, it is improperly crimped and shall be replaced.

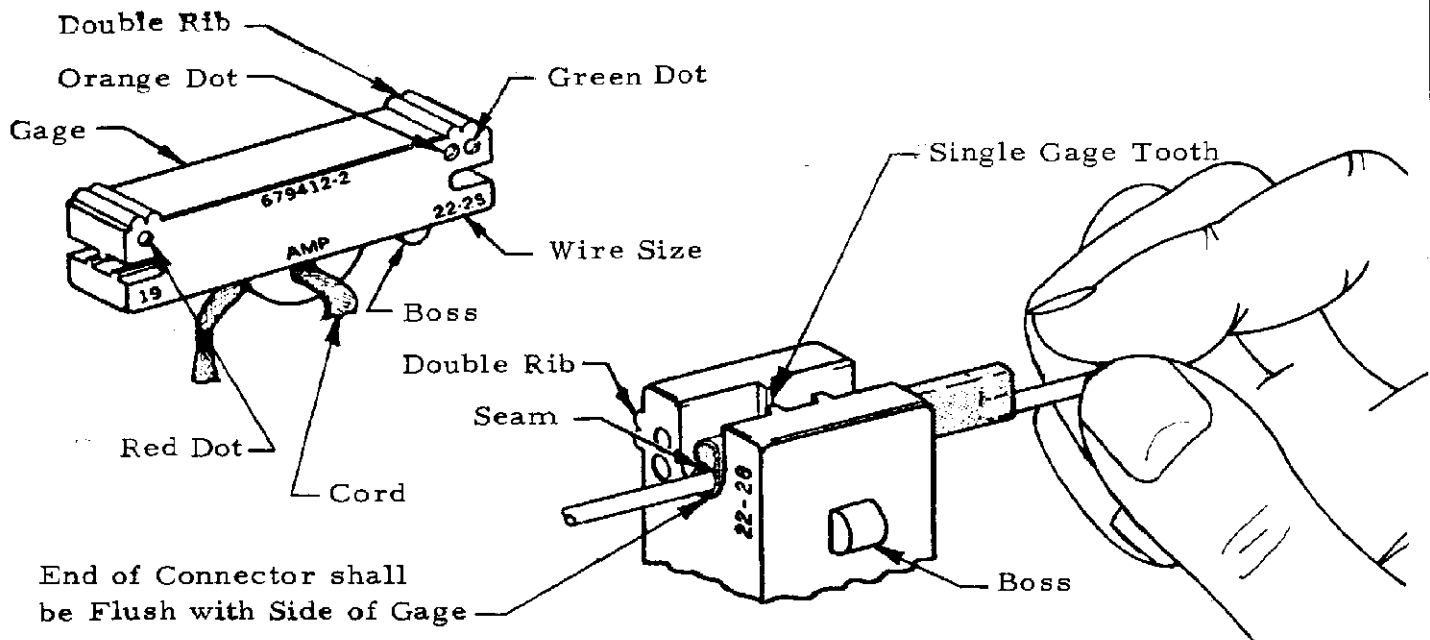


Figure 3

|  |          |   |                |                                     |  |
|--|----------|---|----------------|-------------------------------------|--|
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### 3.6. Wire Protrusion

Bare wires shall not protrude from the center of the connector after termination. A small tuft of insulation is not a defect as long as bare wire is not visible.

### 3.7. Workmanship

Care shall be taken not to cut, score or crush the connector. Such conditions are due to foreign matter in crimper dies or on anvil and also disalignment of tooling.

|  |          |                                     |                 |                                      |  |
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| Part Numbers   |             | Wire Size   | Color Code | Wire Insulation    |                           | Number of Wires Per Connector End   |
|--|-------------|---|------------|--------------------|---------------------------|---|
| Strip  | Loose Piece |   |            | Type (a)           | Outside Dia Range         |   |
| REGULAR  |             |   |            |                    |                           |   |
| 61898-1  | 61899-1     | 28-24 AWG<br>.013-.020 dia<br>(.32-.51 mm)                                  | Orange     | Non-filled Plastic | .015-.046<br>(.38-1.2 mm) | 1 or 2  |
|  |             |   |            | Paper              |                           |   |
|  |             |   |            | Pulp               |                           |   |
| 60944-6  | 60945-4     | 26-22 AWG<br>.016-.025 dia<br>(.40-.64 mm)                                  | Green      | Non-filled Plastic | .018-.048<br>(.46-1.2 mm) | 1 or 2  |
|  |             |   |            | Paper              |                           |   |
|  |             |   |            | Pulp               |                           |   |
| 60946-4  | 60947-3     | 24-19 AWG<br>.020-.036 dia<br>(.51-.91 mm)                                  | Red        | Non-filled Plastic | .022-.066<br>(.56-1.7 mm) | (1) 19 AWG or<br>(1) 19 AWG and<br>(1) smaller than<br>19 AWG or<br>(1 or 2) smaller<br>than 19 AWG |
|  |             |   |            | Paper              |                           |   |
|  |             |   |            | Pulp               |                           |   |
| WEATHER RESISTANT  |             |   |            |                    |                           |   |
| 229915-2   | 61226-2     | 26-22 AWG<br>.016-.025 dia<br>(.40-.64 mm)                                  | Purple     | Filled Plastic     | .018-.048<br>(.46-1.2 mm) | 1 or 2  |
| 229917-2   | 61292-2     | 24-19 AWG<br>.020-.036 dia<br>(.51-.91 mm)                                  | Yellow     | Filled Plastic     | .022-.066<br>(.56-1.7 mm) | (1) 19 AWG or<br>(1) 19 AWG and<br>(1) smaller than<br>19 AWG or<br>(1 or 2) smaller<br>than 19 AWG |
|  |             | 19 AWG<br>.036 dia<br>(.91 mm)  | Yellow     | Filled Plastic     | .067-.080<br>(1.7-2.0 mm) | 1 only  |
| (a) Insulation type listed is preferred, for other applications consult AMP Engineering. |             |   |            |                    |                           |   |
| Figure 4   |             |   |            |                    |                           |   |
| Part Numbers   |             |   |            |                    |                           |   |
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