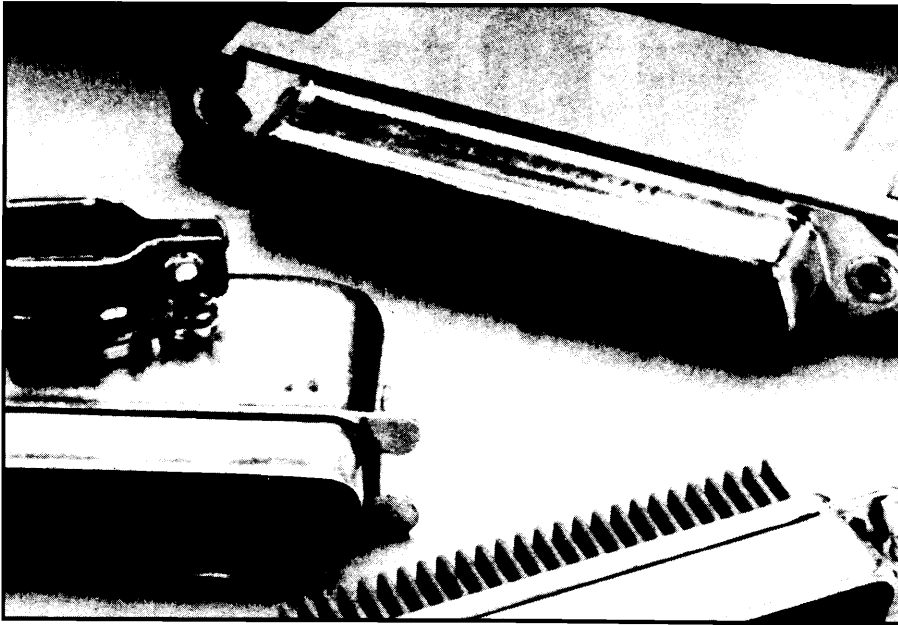


# general configuration – 157 series I.D.C. termination



## description

Amphenol 157 Micro-Pierce connectors combine the field-proven features and reliability of 57 series micro-ribbon solder-type connectors with the speed and convenience of solderless termination.

These versatile rack and panel, cable to panel, and cable to cable connectors are available in 14-, 24-, 36-, 50- and 64-contact configurations.

Solderless termination, as accomplished using either hand or automatic termination equipment is fast, requires no special skill, yet results in reliable, virtually mistake-proof termination because individual conductor preparation is not necessary.

## features

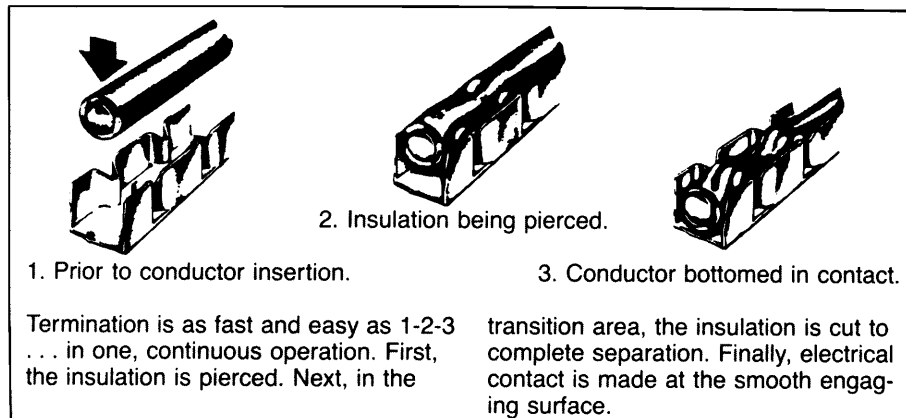
- Glass-filled polyester dielectric permits operation to 700 VDC at sea level without shorting or flashover. Dielectric resists cracking or chipping — has high mechanical strength. Also low moisture absorption.
- Iron-copper contacts with plated gold over nickel for excellent current-carrying characteristics up to 5 amps.
- Terminal area provides positive insulation-piercing, excellent electrical continuity as wiped-clean conductor cold-flows around engaging surface to form large contact area.
- Float-bushing mouting permits .020 radial float for easy mating.
- Zinc-plated steel outer shell with clear chromate finish resists corrosion.
- Wide, flat mating surfaces are pressed tightly together by the flexing action of both contacts for protection against "opens".
- Positive mating action wipes contacts clean, removes film or foreign material for low contact resistance.
- Trapezoidal shell assures correct polarity.

## general specifications

### All Micro-Pierce Connectors

|                       |  |
|-----------------------|--|
| Current capacity      | 5 amp per contact  |
| Voltage rating        | 700 VDC at sea level<br>200 VDC at 70,000 ft.  |
| Operating temperature | -67°F to +221°F<br>-55°C to +105°C   |
| Wire sizes            | 24 and 26 AWG, solid conductor<br>26 and 28 AWG, stranded conductor                            |
| Contacts              | Selectively plated 20 microinches gold over 50 microinches nickel on a copper alloy base       |
| Dielectric            | DPT UL94V-0  |
| Shells                | Zinc-plated steel with clear chromate coating. Trapezoidal shape assure positive polarization. |

### 3-Step Insulation Displacement



UL  
Component  
Recognition

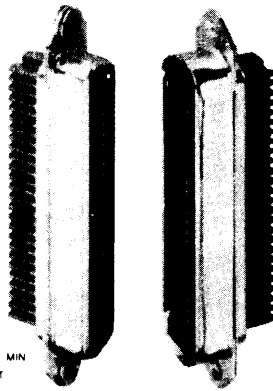
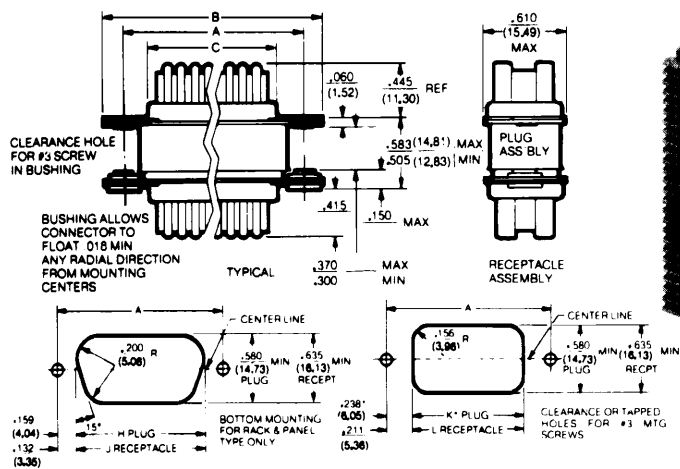
FILE E64911



Canadian  
Standards  
Association

FILE LR 45516-14

# 157 series rack-and-panel connectors



## order information

| Contacts | Plug                | Receptacle           |
|----------|---------------------|----------------------|
| 14       | <b>157-12140</b>    | <b>157-22140</b>     |
| 24       | <b>157-12240***</b> | <b>157-22240***</b>  |
| 36       | <b>157-12360</b>    | <b>157-22360</b>     |
| 50       | <b>157-12500</b>    | <b>157-22500</b>     |
| 50       | <b>157-12500-3*</b> | <b>157-22500-3**</b> |
| 64       | <b>157-12640</b>    | <b>157-22640</b>     |

\*IEEE type with .185 mounting hole.  
 \*\*IEEE type with .185 mounting hole less float bushing.  
 \*\*\*IEEE type.  
 Items in bold print are popular, readily available parts.  
**IEEE mounting hardware**  
**408-153819** Inside panel mount hardware includes two each studs, nuts, washers.  
**408-153818** Outside panel mount hardware includes two each studs, nuts, washers.

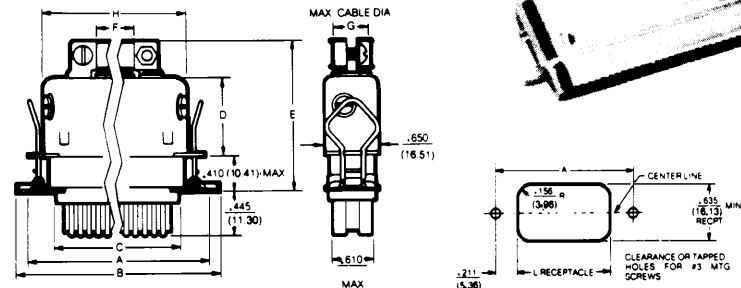
## dimensions

| Contacts | Bottom Mounting |       |       |       |       |       | Top Mounting |       |       |       |       |       |       |       |
|----------|-----------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|-------|-------|
|          | A               |       | B     |       | C     |       | H            |       | J     |       | K     |       | L     |       |
|          | in.             | mm    | in.   | mm    | in.   | mm    | in.          | mm    | in.   | mm    | in.   | mm    | in.   | mm    |
| 14       | 1.417           | 35.99 | 1.750 | 44.45 | .910  | 23.11 | 1.099        | 27.92 | 1.153 | 29.29 | .941  | 23.90 | .995  | 25.27 |
| 24       | 1.842           | 46.79 | 2.175 | 55.25 | 1.335 | 33.91 | 1.524        | 38.71 | 1.578 | 40.08 | 1.366 | 34.70 | 1.420 | 36.07 |
| 36       | 2.352           | 59.74 | 2.685 | 68.20 | 1.845 | 46.86 | 2.034        | 51.66 | 2.088 | 53.04 | 1.876 | 47.65 | 1.930 | 49.02 |
| 50       | 2.947           | 74.85 | 3.280 | 83.31 | 2.440 | 61.98 | 2.629        | 66.78 | 2.683 | 68.15 | 2.471 | 62.76 | 2.525 | 64.14 |
| 64       | 3.542           | 89.97 | .875  | 98.43 | 3.035 | 77.09 | 3.224        | 81.89 | 3.278 | 83.26 | 3.066 | 77.88 | 3.120 | 79.25 |

NOTE: All rack and panel receptacle connectors have a float-bushing mount that permits .020" (.51mm) radial float for ease of mounting and connection. Connectors may be mounted above or below panels (see cut-out drawings above) using #3 mounting screws.

# 157 series cable-to-panel connectors

## top cable entry type



## order information

| Contacts | Plug                               | Receptacle       |
|----------|------------------------------------|------------------|
| 14       | <b>157-32140</b>                   | <b>157-42140</b> |
| 24       | <b>157-32240</b>                   | <b>157-42240</b> |
| 36       | <b>157-32360 (screw type hood)</b> | <b>157-42360</b> |
| 36       | 157-32360-3 (snap on hood)         | —                |
| 50       | <b>157-32500</b>                   | <b>157-42500</b> |

Items in bold print are popular, readily available parts.

## dimensions

| Contacts | A     |       | B     |       | C     |       | D     |       | E     |       | F    |       | G    |       | H     |       | L     |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|
|          | in.   | mm    | in.   | mm    | in.   | mm    | in.   | mm    | in.   | mm    | in.  | mm    | in.  | mm    | in.   | mm    | in.   | mm    |
| 14       | 1.417 | 35.99 | 1.77  | 44.96 | .910  | 23.11 | .850  | 21.59 | 1.665 | 42.29 | .348 | 8.84  | .348 | 8.84  | 1.153 | 29.29 | .995  | 25.27 |
| 24       | 1.842 | 46.79 | 2.195 | 55.75 | 1.335 | 33.91 | .830  | 21.08 | 1.645 | 41.78 | .473 | 12.01 | .473 | 12.01 | 1.578 | 40.08 | 1.420 | 36.07 |
| 36       | 2.352 | 59.74 | 2.705 | 68.70 | 1.845 | 46.86 | .910  | 23.11 | 1.725 | 43.82 | .648 | 16.46 | .500 | 12.7  | 2.089 | 53.06 | 1.930 | 46.02 |
| 50       | 2.947 | 74.85 | 3.300 | 83.82 | 2.440 | 61.98 | 1.000 | 25.4  | 1.815 | 46.1  | .772 | 19.61 | .500 | 12.7  | 2.683 | 68.15 | 2.525 | 64.14 |

\*Has .185 mounting hole.

# 157 series cable-to-panel connectors (cont.)

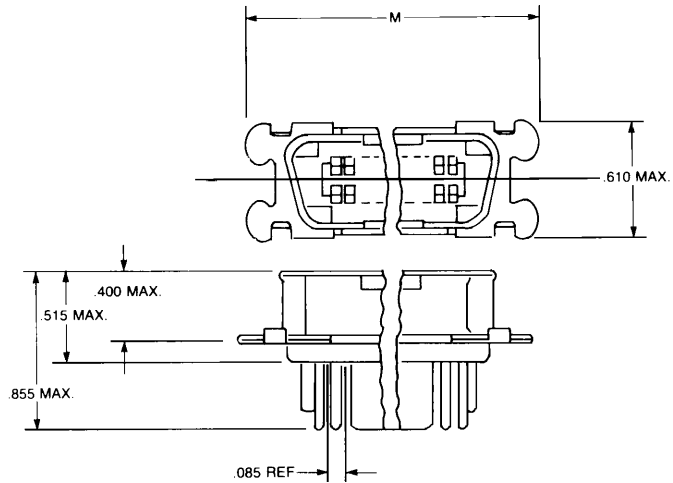
## top cable entry type (for overmold cable assemblies)

### order information

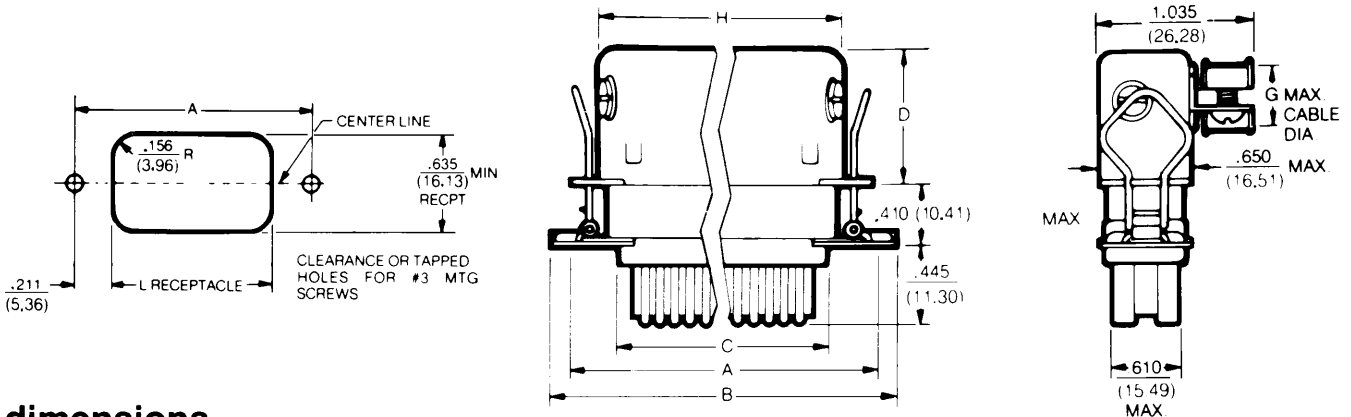
|                 |  |
|-----------------|--|
|                 | <b>Plugs: with bail latch ears for overmold cable assemblies</b> |
| <b>Contacts</b> | <b>Part Number</b>   |
| 36              | 157-12360-5 (441)  |
| 50              | 157-12500-10 (441)   |

### dimensions

|   |                    |                    |
|---|--------------------|--------------------|
|   | <b>36 Contacts</b> | <b>50 Contacts</b> |
|   | <b>In. mm</b>      | <b>In. mm</b>      |
| M | 2.431 61.75        | 3.025 76.84        |



## side cable entry type



### dimensions

| Contacts | A     |       | B     |       | C     |       | D MAX |       | G    |       | H MAX |       | L*    |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
|          | In.   | mm    | In.   | mm    | In.   | mm    | In.   | mm    | In.  | mm    | In.   | mm    |       |       |
| 14       | 1.417 | 35.99 | 1.77  | 44.96 | .910  | 23.11 | .850  | 21.59 | .348 | 4.48  | 1.153 | 29.29 | .995  | 25.27 |
| 24       | 1.842 | 46.79 | 2.195 | 55.75 | 1.335 | 33.91 | .830  | 21.03 | .473 | 12.01 | 1.578 | 40.08 | 1.420 | 36.07 |
| 36       | 2.352 | 59.74 | 2.705 | 68.70 | 1.845 | 46.86 | .910  | 23.11 | .500 | 12.7  | 2.089 | 53.06 | 1.930 | 46.02 |
| 50       | 2.947 | 74.85 | 3.300 | 88.32 | 2.440 | 61.98 | 1.00  | 25.4  | .500 | 12.7  | 2.683 | 68.15 | 2.525 | 64.14 |

\*Top mounting; for cable-to-panel mounting.

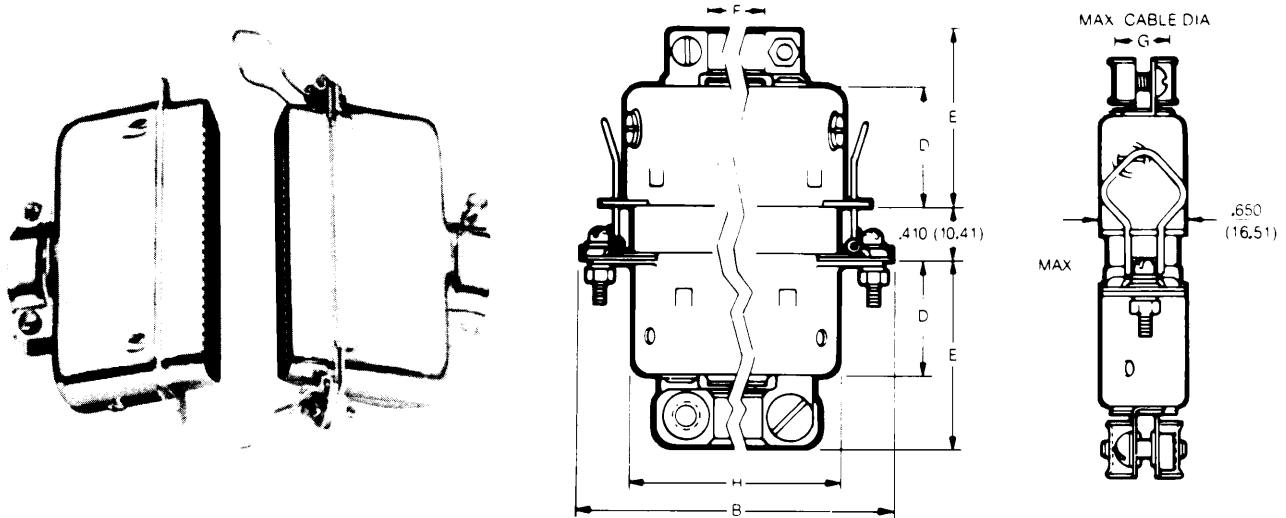
### order information

| Contacts | Plug             | Receptacle       |
|----------|------------------|------------------|
| 14       | <b>157-52140</b> | <b>157-42140</b> |
| 24       | <b>157-52240</b> | <b>157-42240</b> |
| 36       | <b>157-52360</b> | <b>157-42360</b> |
| 50       | <b>157-52500</b> | <b>157-42500</b> |

Items in bold print are popular, readily available parts.

# 157 series cable-to-cable connectors

## top cable entry type



### dimensions

| Contacts | B MAX |       | D MAX |       | E MAX |       | F MAX |       | G    |       | H MAX |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
|          | In.   | mm    | In.   | mm    | In.   | mm    | In.   | mm    | In.  | mm    | In.   | mm    |
| 14       | 1.770 | 44.96 | .850  | 21.59 | 1.255 | 31.88 | .348  | 8.84  | .348 | 8.84  | 1.153 | 29.29 |
| 24       | 2.195 | 55.75 | .830  | 21.08 | 1.235 | 31.37 | .473  | 12.01 | .473 | 12.01 | 1.578 | 40.08 |
| 36       | 2.705 | 68.70 | .910  | 23.11 | 1.315 | 33.4  | .648  | 16.46 | .500 | 12.7  | 2.089 | 53.06 |
| 50       | 3.30  | 83.82 | 1.000 | 25.4  | 1.405 | 35.69 | .772  | 19.61 | .500 | 12.7  | 2.683 | 68.15 |

### order information

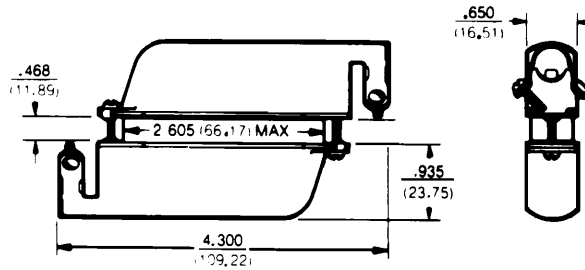
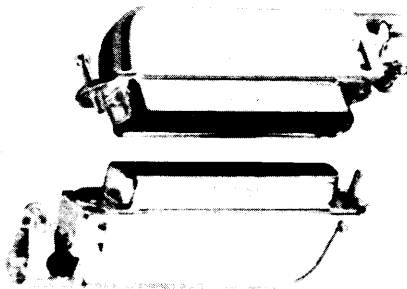
| Contacts | Top Cable Entry  |                  |
|----------|------------------|------------------|
|          | Plug             | Receptacle       |
| 14       | <b>157-32140</b> | <b>157-62140</b> |
| 24       | <b>157-32240</b> | <b>157-62240</b> |
| 36       | <b>157-32360</b> | <b>157-62360</b> |
| 50       | <b>157-32500</b> | <b>157-62500</b> |

Items in bold print are popular, readily available parts.

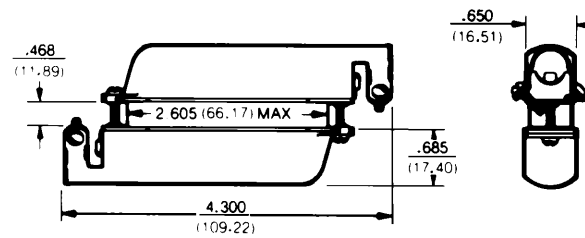
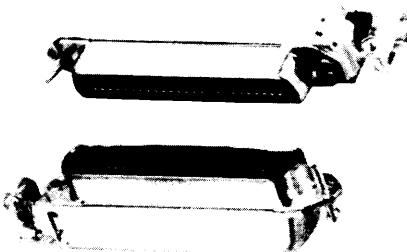
# 157 series cable-to-cable connectors (cont.)

## end cable entry type

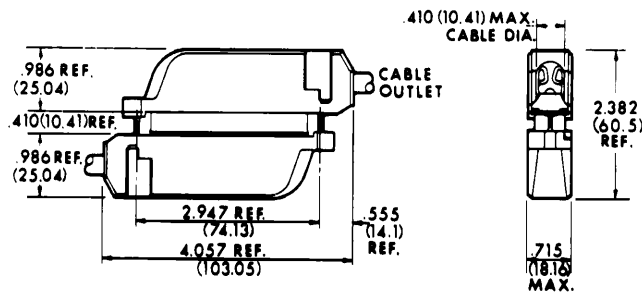
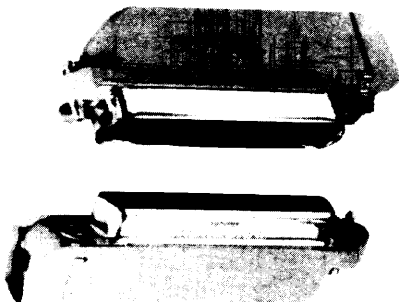
### low profile steel hood



### ultra-low profile steel hood



### low profile plastic hood

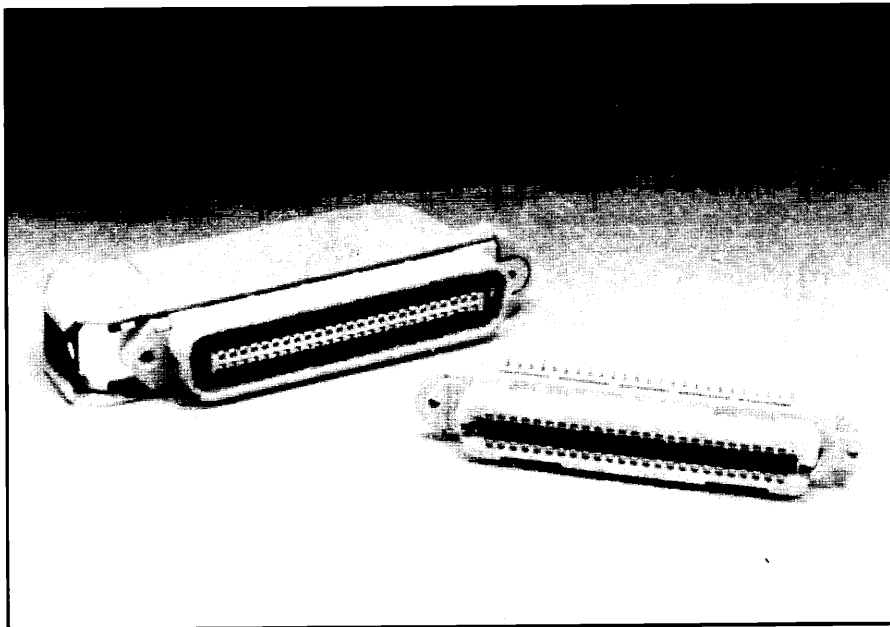


## order information

| Contacts | Low-Profile Steel Hood |                    | Ultra-Low Profile Steel Hood |                     | All-Plastic Hood        |                         |
|----------|------------------------|--------------------|------------------------------|---------------------|-------------------------|-------------------------|
|          | Plug                   | Receptacle         | Plug                         | Receptacle          | Plug                    | Receptacle              |
| 50       | <b>157-72500-3</b>     | <b>157-82500-3</b> | <b>157-72500-18</b>          | <b>157-82500-18</b> | <b>157-72500-3(431)</b> | <b>157-82500-3(431)</b> |

Items in bold print are popular, readily available parts.

# 157 series all-plastic Micro-Pierce® connectors



## features

- Glass-filled polyester dielectric permits operation to 700 VDC at sea level without shorting or flashover. Dielectric resists cracking or chipping — has high mechanical strength. Also low moisture absorption.
- Iron-copper contacts with plated gold over nickel for excellent current-carrying characteristics up to 5 amps.
- Terminal area provides positive insulation-piercing, excellent electrical continuity as wiped-clean conductor cold-flows around engaging surface to form large contact area.
- Float-bushing mounting permits .020 radial float for easy mating.
- Zinc-plated steel outer shell with clear chromate finish resists corrosion.
- Wide, flat mating surfaces are pressed tightly together by the flexing action of both contacts for protection against "opens".
- Positive mating action wipes contacts clean, removes film or foreign material for low contact resistance.
- Trapezoidal shell assures correct polarity.
- 90° plastic hoods are separate from the cable clamp device which is attached directly to the connector body. The hood snaps on and off easily.
- The mated connectors may be locked together with either spring clips, provided on the receptacle, or a captivated screw. With the spring clip locking device there is no need for additional hardware. The spring clips engage the windows provided in the plug body.

## description

Amphenol 157 Micro-Pierce connectors combine the field-proven features and reliability of 57 series micro-ribbon solder-type connectors with the speed and convenience of solderless termination.

Solderless termination, as accomplished using either hand or automatic termination equipment, is fast, requires no special skill, yet results in reliable, virtually mistake-proof termination because individual conductor preparation is not necessary.

## specifications

|                               |  |
|-------------------------------|--|
| <b>Current capacity:</b>      | 5 amp per contact  |
| <b>Voltage rating:</b>        | 700 VDC at sea level<br>200 VDC at 70,000 ft.  |
| <b>Operating temperature:</b> | -67°F to +221°F<br>-55°C to +105°C   |
| <b>Wire sizes</b>             | 24 and 26 AWG, solid conductor;<br>26 and 28 AWG, stranded conductor                     |
| <b>Contacts</b>               | Selectively plated 20 microinches gold over 50 microinches nickel on a copper alloy base |
| <b>Dielectric</b>             | Fiberglass-filled polyester  |

### 3-Step Insulation Displacement:



1. Prior to conductor insertion.



2. Insulation being pierced.



3. Conductor bottomed in contact.

Termination is as fast and easy as 1-2-3 . . . in one, continuous operation. First, the insulation is pierced. Next, in the

transition area, the insulation is cut to complete separation. Finally, electrical contact is made at the smooth engaging surface.



FILE E64911



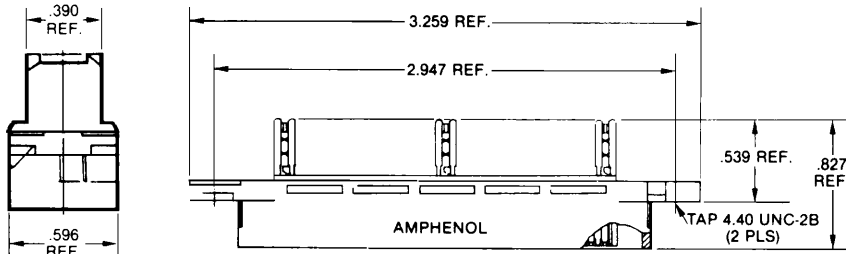
Canadian  
Standards  
Association

FILE LR 45516-14

# 157 series all-plastic Micro-Pierce® connectors (cont.)

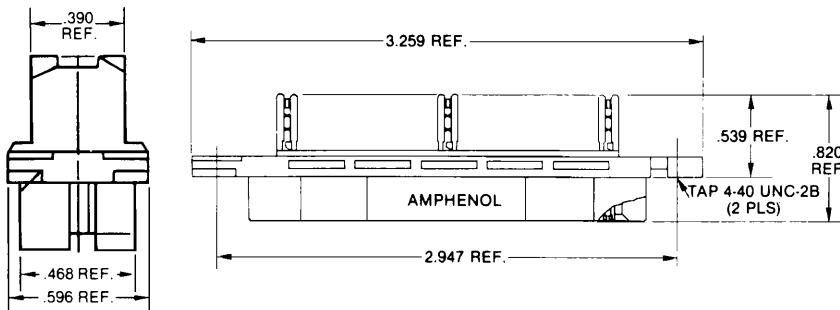
## dimensions and order information

**Plug**



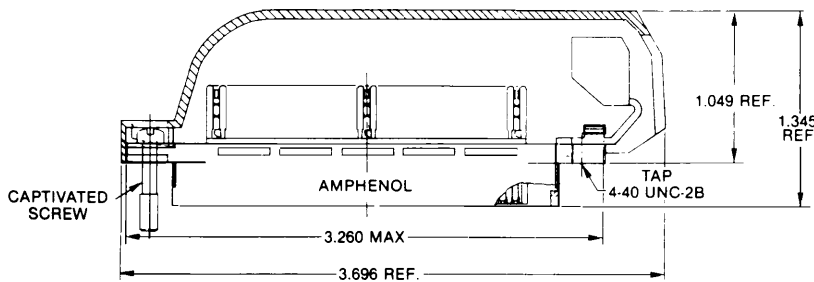
| Mounting Arrangement | Amphenol Part Number |
|----------------------|----------------------|
| 4-40 tapped 2 pls.   | 157-19500-01         |
| .125" thru holes     | 157-19500-02         |

**Receptacle**



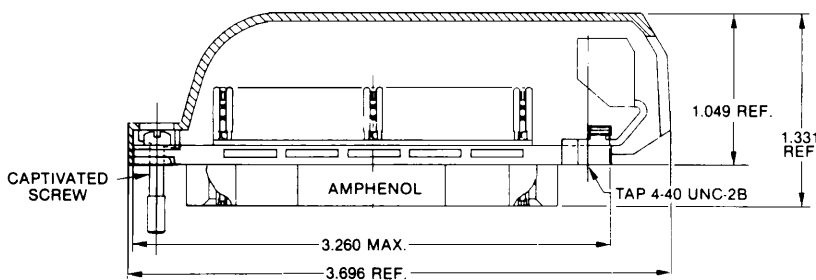
| Mounting Arrangement                 | Amphenol Part Number |
|--------------------------------------|----------------------|
| 4-40 tapped 2 pls.                   | 157-29500-01         |
| .125" thru holes                     | 157-29500-02         |
| 4-40 tapped 2 pls. with spring clips | 157-29500-03         |
| .125" thru holes with spring clips   | 157-29500-04         |

**Plug with hood and cable clamp**



| Mounting Arrangement                               | Amphenol Part Number |
|--|----------------------|
| 4-40 captivated screw, tapped hole and cable clamp | <b>157-79500-01</b>  |
| 4-40 tapped 2 pls. and cable clamp                 | 157-79500-02         |

**Receptacle with hood and cable clamp**



| Mounting Arrangement                                 | Amphenol Part Number |
|--|----------------------|
| 4-40 captivated screw, tapped hole and cable clamp   | <b>157-89500-01</b>  |
| 4-40 tapped 2 pls. with spring clips and cable clamp | 157-89500-02         |