

Neptune is a range of circular connectors specifically designed for harsh environment applications. They come with membrane wire seals that meet the requirements for IP67 and do not require blanking plugs for unused cavities. They will accept various combinations of signal (13 A) and power (30 A) contacts. The receptacle connectors feature stainless steel bayonet pins integrally molded into the bodies. The plug connectors are available with either high strength metal or corrosion resistant plastic coupling rings.



For more information: [www.ittcannon.com/cat005](http://www.ittcannon.com/cat005)

### Applications

- Off Road Vehicles.
- Truck and Bus.
- Agricultural Equipment.
- Construction Equipment.
- Outdoor Electronics.

### Product Features

- Mixes signal and 30 A power contacts in one housing.
- Printed circuit and coaxial contacts available.
- Full interface and cable sealing up to IP67.
- Large range support accessories.
- Robust, cost effective connector for harsh environments.

### Performance Specifications

|                       |  |
|-----------------------|--|
| Temperature Range     | -55°C to 105°C (-67°F to 221°F)                          |
| Test Voltage          | 2000 V ac rms  |
| Working Voltage       | 25 V (Can be higher, if the equipment safety will allow) |
| Insulation Resistance | 5000 MΩ at 500 V dc                                      |
| Environmental Sealing | Up to IP67   |
| Flammability          | UL 94V-0   |

### Materials and Finishes

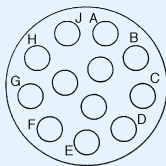
| Description              | Material                   | Finish |
|--------------------------|----------------------------|--------|
| Insulator                | Black Nylon, UL 94V-0      | None   |
| Bayonet Pin              | Stainless Steel            | None   |
| Bayonet Pin Support Band | High Strength Copper Alloy | Nickel |
| Coupling Ring            | High Strength Copper Alloy | Nickel |

## Contact Cavity Arrangements

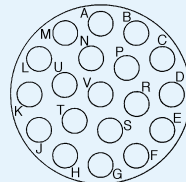
Neptune Circular Connectors offer combinations of signal and power contacts. The Signal cavities will accept any of the standard Trident contacts, including signal contacts up to 13 A

and coax. The power cavities will accept power contacts rated at 30 A. PCB contacts are also available, for more information see page 45.

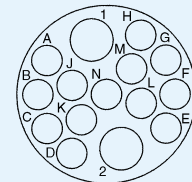
**Mating Face Views of Reversed and Standard Receptacles.**  
 \* The 0-12 view is of reversed receptable only  
 (0-12 standard receptacle is mirror image)



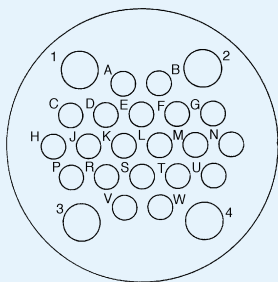
**0-12\***  
 Shell Size 14  
 12 Signal  
 0 Power



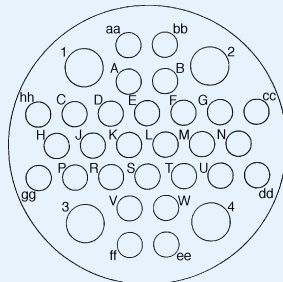
**0-19**  
 Shell Size 16  
 19 Signal  
 0 Power



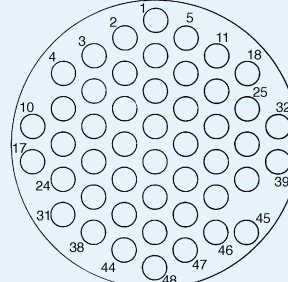
**2-13**  
 Shell Size 16  
 13 Signal  
 2 Power



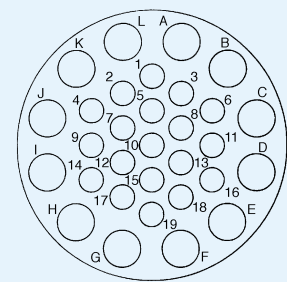
**4-20**  
 Shell Size 24  
 20 Signal  
 4 Power



**4-28**  
 Shell Size 24  
 28 Signal  
 4 Power



**0-48**  
 Shell Size 24  
 48 Signal  
 0 Power



**12-19**  
 Shell Size 24  
 19 Signal  
 12 Power

Note: The shell size indicates the diameter of the interface in sixteenths of an inch.

Example: Shell Size 16 is 1.00 inch in diameter, 25,4 mm.

## Wire Sealing Range

| Contact Arrangement | Signal (Overall Diameter) | Power (Overall Diameter) |
|---------------------|---------------------------|--------------------------|
| 0-12                | 1,70-2,70 (.066-.106)     | N/A                      |
| 0-19                | 1,70-2,70 (.066-.106)     | N/A                      |
| 2-13                | 1,70-2,70 (.066-.106)     | 2,70-4,00 (.106-.157)    |
| 4-20                | 1,70-2,70 (.066-.106)     | 2,70-4,00 (.106-.157)    |
| 4-28                | 1,70-2,70 (.066-.106)     | 2,70-4,00 (.106-.157)    |
| 0-48                | 1,70-2,20 (.066-.086)     | N/A                      |
| 0-48 (L)            | 2,30-3,20 (.090-.126)     | N/A                      |
| 12-19               | 1,70-2,70 (.066-.106)     | 2,70-4,00 (.106-.157)    |

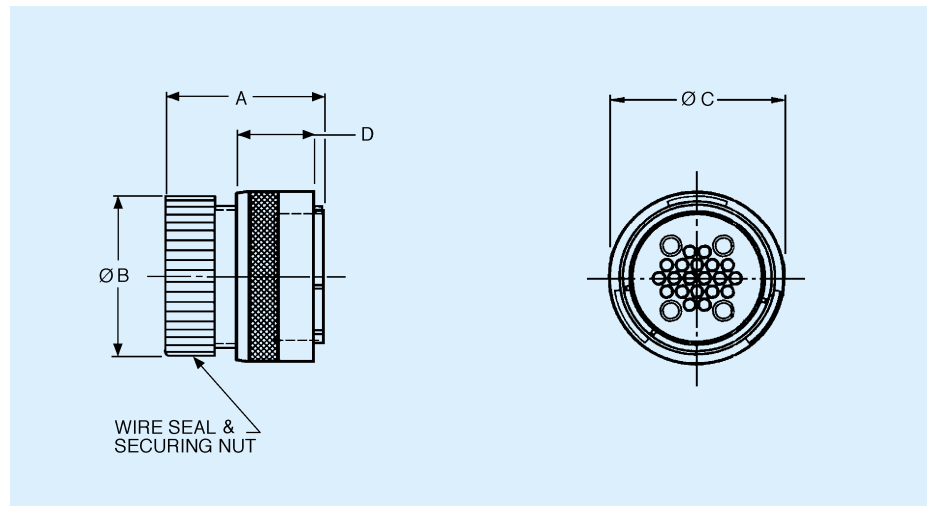
(L) Larger overall sealing diameter for thick insulation wires.

## Standard Plugs — Pin Contacts

### Metal Locking Ring



- For Wire Sealing Ranges, see page 27.
- Accepts pin contacts, see page 45.
- Water sealed to IP67.
- Bulk packaging options available. Contact Cannon for details.



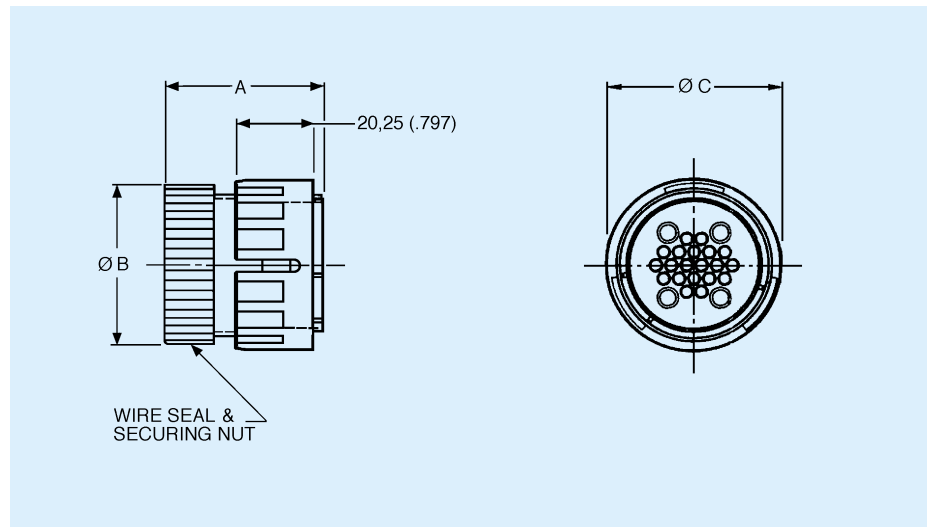
| Contact Layout | Shell Size | Part Number | Nomenclature    | A             | Ø B           | Ø C           | D                        |
|----------------|------------|-------------|-----------------|---------------|---------------|---------------|--------------------------|
| 4-20           | 24         | 192900-0014 | TN 6S2404-20P1L | 39,80 (1.566) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ±0,15 (.580 ±.006) |
| 4-28           | 24         | 192900-0015 | TN 6S2404-28P1L | 39,80 (1.566) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ±0,15 (.580 ±.006) |
| 12-19          | 24         | 192900-0016 | TN 6S2412-19P1L | 39,80 (1.566) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ±0,15 (.580 ±.006) |
| 0-48           | 24         | 192900-0469 | TN 6S2400-48P1L | 39,80 (1.566) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ±0,15 (.580 ±.006) |
| 0-48 (L)       | 24         | 192991-0628 | TN 6L2400-48P1L | 50,70 (2.000) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ±0,15 (.580 ±.006) |
| 0-19           | 16         | 192900-0017 | TN 6S1600-19P1L | 39,80 (1.566) | 27,00 (1.063) | 30,20 (1.189) | 19,10 ±0,20 (.751 ±.007) |
| 2-13           | 16         | 192900-0507 | TN 6S1602-13P1L | 39,80 (1.566) | 27,00 (1.063) | 30,20 (1.189) | 19,10 ±0,20 (.751 ±.007) |
| 0-12           | 14         | 192900-0303 | TN 6S1400-12P1L | 38,80 (1.527) | 24,30 (.957)  | 28,00 (1.102) | 19,10 ±0,20 (.751 ±.007) |

(L) Larger overall sealing diameter for thick insulation wires.

### Plastic Locking Ring



- For Wire Sealing Ranges, see page 27.
- Accepts pin contacts, see page 45.
- Water sealed to IP67.
- Bulk packaging options available. Contact Cannon for details.



| Contact Layout | Shell Size | Part Number | Nomenclature    | A             | Ø B           | Ø C           |
|----------------|------------|-------------|-----------------|---------------|---------------|---------------|
| 4-20           | 24         | 192900-0537 | TN 6S2404-20P2L | 39,80 (1.566) | 40,50 (1.594) | 45,75 (1.800) |
| 4-28           | 24         | 192900-0549 | TN 6S2404-28P2L | 39,80 (1.566) | 40,50 (1.594) | 45,75 (1.800) |
| 12-19          | 24         | 192900-0538 | TN 6S2412-19P2L | 39,80 (1.566) | 40,50 (1.594) | 45,75 (1.800) |
| 0-48           | 24         | 192900-0539 | TN 6S2400-48P2L | 39,80 (1.566) | 40,50 (1.594) | 45,75 (1.800) |
| 0-48 (L)       | 24         | 192991-0660 | TN 6L2400-48P2L | 50,70 (2.000) | 40,50 (1.594) | 45,75 (1.800) |
| 0-19           | 16         | 192900-0557 | TN 6S1600-19P2L | 39,80 (1.566) | 27,00 (1.063) | 32,80 (1.291) |
| 2-13           | 16         | 192900-0561 | TN 6S1602-13P2L | 39,80 (1.566) | 27,00 (1.063) | 32,80 (1.291) |

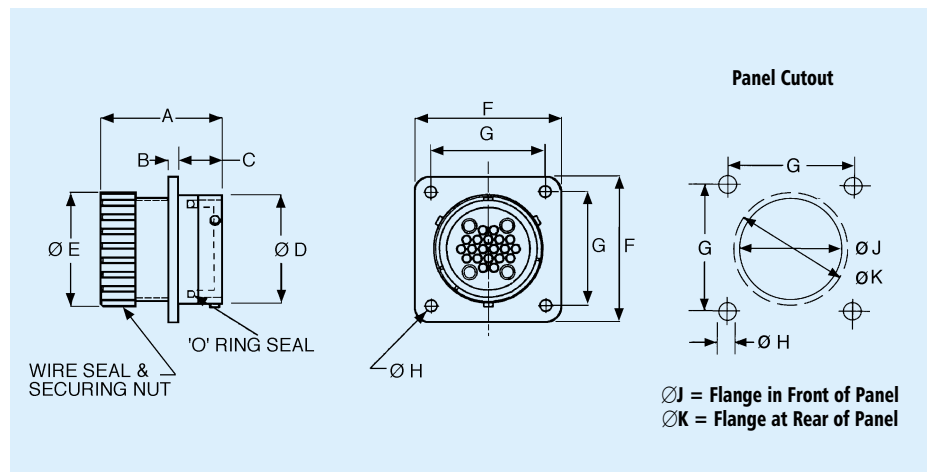
(L) Larger overall sealing diameter for thick insulation wires.

## Standard Receptacles — Socket Contacts

### Flange Mounting



- For Wire Sealing Ranges, see page 27.
- For Panel Gaskets, see page 35.
- Receptacle may be ordered without securing nut and wire seal. Contact Cannon for details.
- Bulk packaging options available. Contact Cannon for details



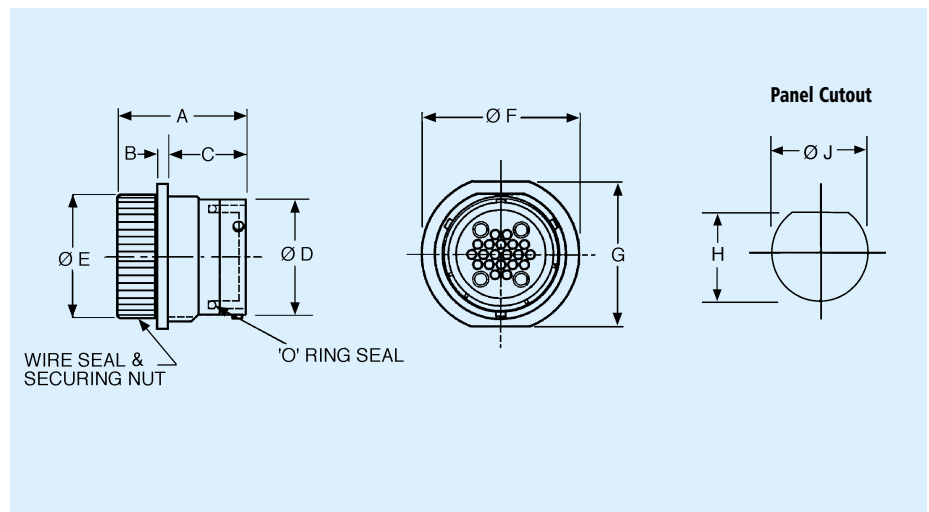
| Contact Layout | Shell Size | Part Number | Nomenclature   | A             | B           | C            | ØD            | ØE            | F             | G             | ØH          | ØJ            | ØK            |
|----------------|------------|-------------|----------------|---------------|-------------|--------------|---------------|---------------|---------------|---------------|-------------|---------------|---------------|
| 4-20           | 24         | 192900-0030 | TN0S2404-20S1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 4-28           | 24         | 192900-0033 | TN0S2404-28S1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 12-19          | 24         | 192900-0036 | TN0S2412-19S1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-48           | 24         | 192900-0475 | TN0S2400-48S1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-48 (L)       | 24         | 192991-0640 | TN0L2400-48S1L | 52,70 (2.075) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-19           | 16         | 192900-0039 | TN0S1600-19S1L | 39,80 (1.566) | 2,30 (.090) | 11,40 (.448) | 25,40 (1.000) | 27,00 (1.063) | 31,00 (1.220) | 24,50 (.964)  | 3,20 (.125) | 28,10 (1.106) | 28,10 (1.106) |
| 2-13           | 16         | 192900-0509 | TN0S1602-13S1L | 39,80 (1.566) | 2,30 (.090) | 11,40 (.448) | 25,40 (1.000) | 27,00 (1.063) | 31,00 (1.220) | 24,50 (.964)  | 3,20 (.125) | 28,10 (1.106) | 28,10 (1.106) |
| 0-12           | 14         | 192900-0308 | TN0S1400-12S1L | 39,70 (1.563) | 2,30 (.090) | 11,40 (.448) | 22,20 (.874)  | 24,30 (.956)  | 28,60 (1.122) | 22,90 (.901)  | 3,20 (.125) | 24,60 (.968)  | 24,60 (.968)  |

(L) Larger overall sealing diameter for thick insulation wires.

### Jam Nut Mounting



- Jam Nut included.
- For Wire Sealing Ranges, see page 27.
- For Panel Gaskets, see page 35.
- Receptacle may be ordered without securing nut and wire seal. Contact Cannon for details.
- Bulk packaging options available. Contact Cannon for details.



| Contact Layout | Shell Size | Part Number | Nomenclature  | A             | B           | C            | ØD            | ØE            | ØF            | G             | H             | ØJ            |
|----------------|------------|-------------|---------------|---------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 4-20           | 24         | 192900-0032 | TN7S240420S1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 4-28           | 24         | 192900-0035 | TN7S240428S1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 12-19          | 24         | 192900-0038 | TN7S241219S1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-48           | 24         | 192900-0481 | TN7S240048S1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-48 (L)       | 24         | 192991-0644 | TN7L240048S1L | 52,70 (2.075) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-19           | 16         | 192900-0490 | TN7S160019S1L | 39,80 (1.566) | 2,30 (.090) | 23,00 (.905) | 25,40 (1.000) | 27,00 (1.063) | 39,80 (1.566) | 38,40 (1.511) | 28,00 (1.102) | 30,50 (1.200) |
| 2-13           | 16         | 192900-0508 | TN7S160213S1L | 39,80 (1.566) | 2,30 (.090) | 23,00 (.905) | 25,40 (1.000) | 27,00 (1.063) | 39,80 (1.566) | 38,40 (1.511) | 28,00 (1.102) | 30,50 (1.200) |
| 0-12           | 14         | 192900-0313 | TN7S140012S1L | 39,70 (1.563) | 3,50 (.137) | 22,10 (.870) | 22,20 (.874)  | 24,30 (.956)  | 35,80 (1.409) | 32,20 (1.267) | 25,10 (.988)  | 27,30 (1.075) |

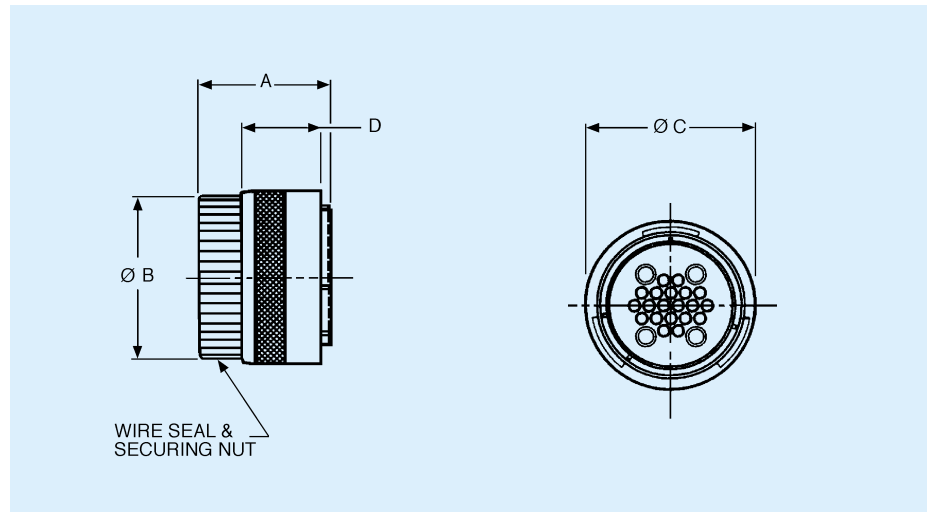
(L) Larger overall sealing diameter for thick insulation wires.

## Reversed Plugs — Socket Contacts

### Metal Locking Ring



- For Wire Sealing Ranges, see page 27.
- Accepts socket contacts, see page 45.
- Water sealed to IP67.
- Bulk packaging options available. Contact Cannon for details.



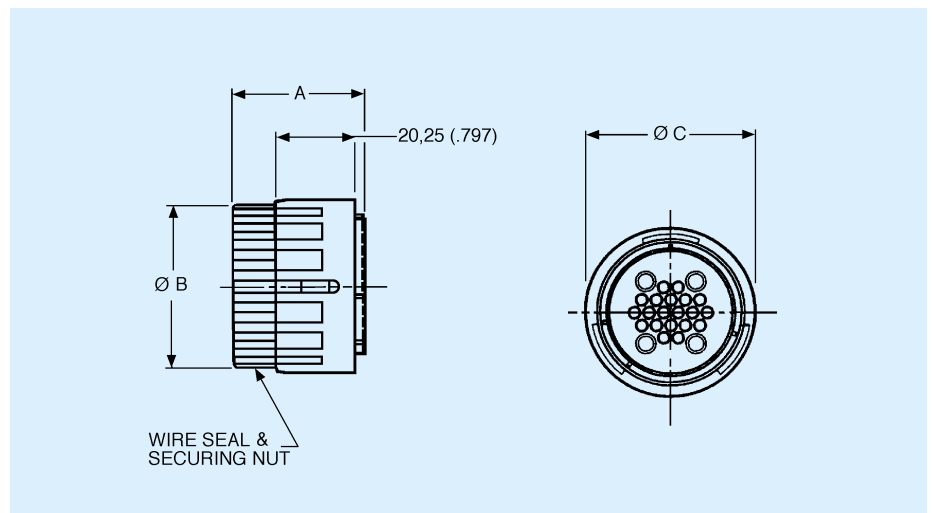
| Contact Layout | Shell Size | Part Number | Nomenclature    | A             | Ø B           | Ø C           | D                          |
|----------------|------------|-------------|-----------------|---------------|---------------|---------------|----------------------------|
| 4-20           | 24         | 192900-0054 | TN 6S240420S1L  | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ± 0,15 (.580 ± .006) |
| 4-28           | 24         | 192900-0055 | TN 6S240428S1L  | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ± 0,15 (.580 ± .006) |
| 12-19          | 24         | 192900-0056 | TN 6S241219S1L  | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ± 0,15 (.580 ± .006) |
| 0-48           | 24         | 192900-0425 | TN 6S240048S1L  | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ± 0,15 (.580 ± .006) |
| 0-48 (L)       | 24         | 192991-0648 | TN 6SL240048S1L | 43,00 (1.693) | 40,50 (1.594) | 44,00 (1.732) | 14,72 ± 0,15 (.580 ± .006) |
| 0-19           | 16         | 192900-0057 | TN 6S160019S1L  | 31,70 (1.248) | 27,00 (1.063) | 30,20 (1.189) | 19,10 ± 0,20 (.751 ± .007) |
| 2-13           | 16         | 192900-0581 | TN 6S160213S1L  | 31,70 (1.248) | 27,00 (1.063) | 30,20 (1.189) | 19,10 ± 0,20 (.751 ± .007) |
| 0-12           | 14         | 192900-0236 | TN 6S140012S1L  | 31,60 (1.244) | 24,30 (.957)  | 28,00 (1.102) | 19,10 ± 0,20 (.751 ± .007) |

(L) Larger overall sealing diameter for thick insulation wires.

### Plastic Locking Ring



- For Wire Sealing Ranges, see page 27.
- Accepts socket contacts, see page 45.
- Water sealed to IP67.
- Bulk packaging options available. Contact Cannon for details.



| Contact Layout | Shell Size | Part Number | Nomenclature    | A             | Ø B           | Ø C           |
|----------------|------------|-------------|-----------------|---------------|---------------|---------------|
| 4-20           | 24         | 192900-0540 | TN 6S2404-20S2L | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) |
| 4-28           | 24         | 192900-0550 | TN 6S2404-28S2L | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) |
| 12-19          | 24         | 192900-0541 | TN 6S2412-19S2L | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) |
| 0-48           | 24         | 192900-0542 | TN 6S2400-48S2L | 32,40 (1.275) | 40,50 (1.594) | 44,00 (1.732) |
| 0-48 (L)       | 24         | 192991-0664 | TN 6L2400-48S2L | 43,00 (1.693) | 40,50 (1.594) | 44,00 (1.732) |
| 0-19           | 16         | 192900-0558 | TN 6S1600-19S2L | 31,70 (1.248) | 27,00 (1.063) | 32,80 (1.291) |
| 2-13           | 16         | 192900-0562 | TN 6S1602-13S2L | 31,70 (1.248) | 27,00 (1.063) | 32,80 (1.291) |

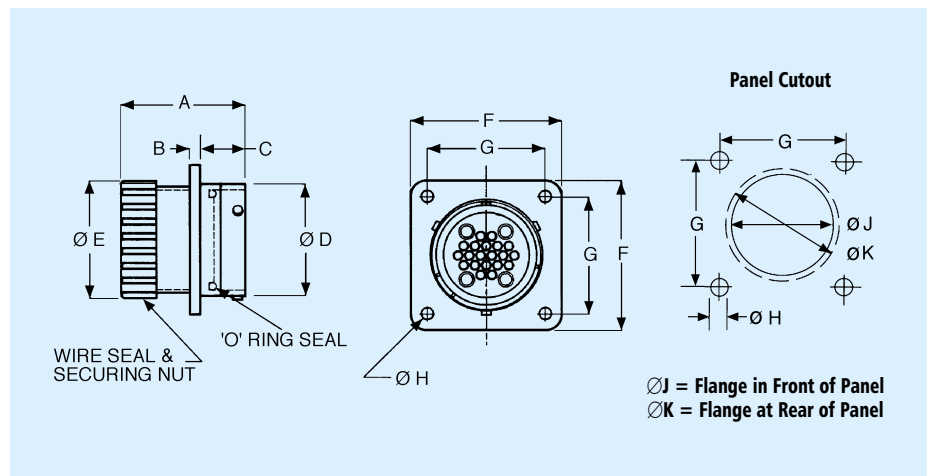
(L) Larger overall sealing diameter for thick insulation wires.

## Reversed Receptacles — Pin Contacts

### Flange Mounting



- For Wire Sealing Ranges, see page 27.
- For Panel Gaskets, see page 35.
- Receptacle may be ordered without securing nut and wire seal. Contact Cannon for details.
- Bulk packaging options available. Contact Cannon for details.



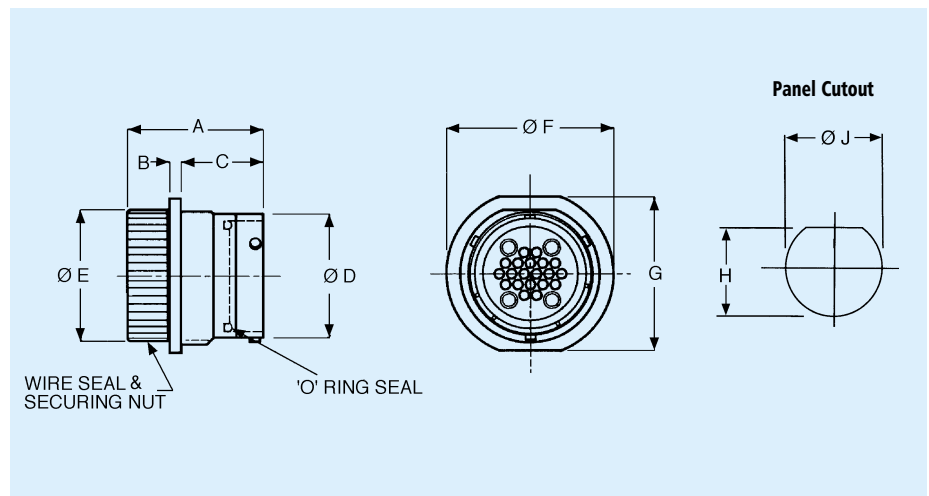
| Contact Layout | Shell Size | Part Number | Nomenclature   | A             | B           | C            | Ø D           | Ø E           | F             | G             | Ø H         | Ø J           | Ø K           |
|----------------|------------|-------------|----------------|---------------|-------------|--------------|---------------|---------------|---------------|---------------|-------------|---------------|---------------|
| 4-20           | 24         | 192900-0069 | TN0S2404-20P1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 4-28           | 24         | 192900-0072 | TN0S2404-28P1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 12-19          | 24         | 192900-0075 | TNS02412-19P1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-48           | 24         | 192900-0431 | TN0S2400-48P1L | 41,80 (1.645) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-48 (L)       | 24         | 192991-0652 | TN0L2400-48P1L | 52,70 (2.075) | 3,50 (.137) | 15,40 (.606) | 38,10 (1.500) | 40,10 (1.578) | 50,80 (2.000) | 39,70 (1.563) | 4,20 (.165) | 41,00 (1.614) | 41,00 (1.614) |
| 0-19           | 16         | 192900-0078 | TN0S1600-19P1L | 39,80 (1.566) | 2,30 (.090) | 11,40 (.448) | 25,40 (1.000) | 27,00 (1.063) | 31,00 (1.220) | 24,50 (.964)  | 3,20 (.125) | 28,10 (1.106) | 28,10 (1.106) |
| 2-13           | 16         | 192900-0582 | TN0S1602-13P1L | 39,80 (1.566) | 2,30 (.090) | 11,40 (.448) | 25,40 (1.000) | 27,00 (1.063) | 31,00 (1.220) | 24,50 (.964)  | 3,20 (.125) | 28,10 (1.106) | 28,10 (1.106) |
| 0-12           | 14         | 192900-0256 | TN0S1400-12P1L | 39,70 (1.563) | 2,30 (.090) | 11,40 (.448) | 22,20 (.874)  | 24,30 (.956)  | 28,60 (1.122) | 22,90 (.901)  | 3,20 (.125) | 24,60 (.968)  | 24,60 (.968)  |

(L) Larger overall sealing diameter for thick insulation wires.

### Jam Nut Mounting



- Jam Nut included.
- For Wire Sealing Ranges, see page 27.
- For Panel Gaskets, see page 35.
- Receptacle may be ordered without securing nut and wire seal. Contact Cannon for details.
- Bulk packaging options available. Contact Cannon for details.



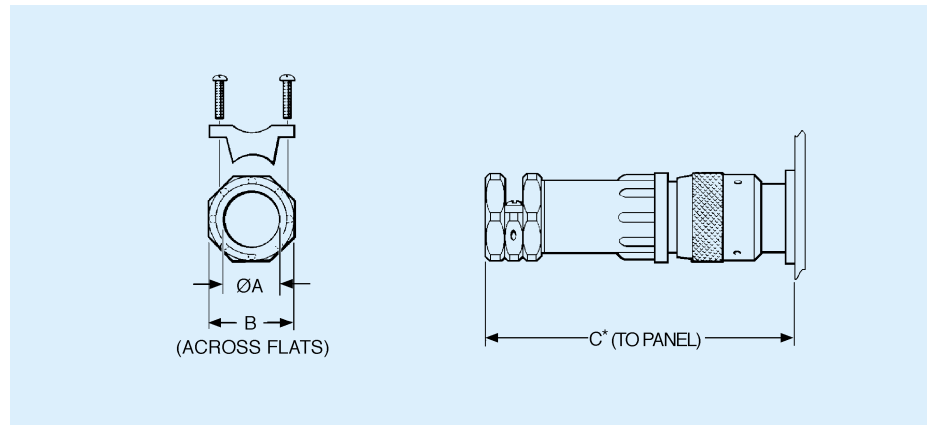
| Contact Layout | Shell Size | Part Number | Nomenclature  | A             | B           | C            | Ø D           | Ø E           | Ø F           | G             | H             | Ø J           |
|----------------|------------|-------------|---------------|---------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 4-20           | 24         | 192900-0071 | TN7S240420P1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 4-28           | 24         | 192900-0074 | TN7S240428P1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 12-19          | 24         | 192900-0077 | TN7S241219P1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-48           | 24         | 192900-0437 | TN7S240048P1L | 41,80 (1.645) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-48 (L)       | 24         | 192991-0656 | TN7L240048P1L | 52,70 (2.075) | 3,50 (.137) | 23,40 (.921) | 38,10 (1.500) | 40,10 (1.578) | 51,00 (2.007) | 47,50 (1.870) | 41,50 (1.633) | 43,20 (1.700) |
| 0-19           | 16         | 192900-0353 | TN7S160019P1L | 39,80 (1.566) | 2,30 (.090) | 23,00 (.905) | 25,40 (1.000) | 27,00 (1.063) | 30,80 (1.212) | 38,20 (1.503) | 28,00 (1.102) | 30,50 (1.200) |
| 2-13           | 16         | 192900-0583 | TN7S160213P1L | 39,80 (1.566) | 2,30 (.090) | 23,00 (.905) | 25,40 (1.000) | 27,00 (1.063) | 30,80 (1.212) | 38,20 (1.503) | 28,00 (1.102) | 30,50 (1.200) |
| 0-12           | 14         | 192900-0266 | TN7S140012P1L | 39,70 (1.563) | 3,50 (.137) | 22,10 (.870) | 22,20 (.874)  | 24,30 (.956)  | 35,80 (1.409) | 32,20 (1.267) | 25,10 (.988)  | 27,30 (1.075) |

(L) Larger overall sealing diameter for thick insulation wires.

## Sealed Cable Clamps For Use With Neptune Circular Connectors



- For use with jacketed cables.
- Provides Strain relief and wire protection.
- Provides sealing to IP67.
- For assembly instructions, see page 57.



\* For disassembly, add 9,00 (.354) for shell sizes 14 and 16 and add 10,60 (.417) for shell size 24.

| Shell Size | Part Number | Nomenclature    | ØA max.       | B             | C max.         | Wire Sealing Diameter |               |
|------------|-------------|-----------------|---------------|---------------|----------------|-----------------------|---------------|
|            |             |                 |               |               |                | Minimum               | Maximum       |
| 14         | 192900-0496 | TNA 14 CCHC-00L | 14,60 (.574)  | 22,80 (.897)  | 85,50 (3.366)  | 6,50 (.256)           | 12,40 (.488)  |
| 16         | 192900-0497 | TNA 16 CCHC-00L | 16,60 (.653)  | 24,70 (.972)  | 89,80 (3.535)  | 6,50 (.256)           | 12,40 (.488)  |
| 24         | 192900-0498 | TNA 24 CCHC-00L | 29,60 (1.165) | 41,80 (1.645) | 128,50 (5.059) | 17,00 (.670)          | 26,50 (1.040) |

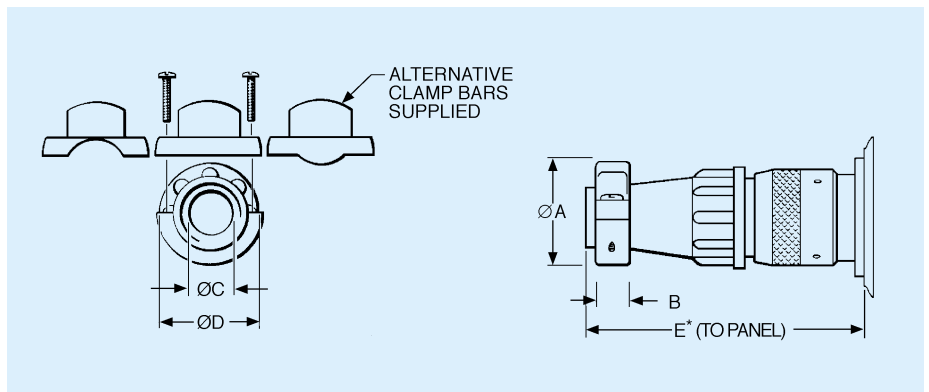
\* Assumes a uniformly cylindrical cable. Variations in the diameter could effect sealing.

## Unsealed Cable Clamps For Use With Neptune Circular Connectors

Neptune Circular



- Provides strain relief and wire protection.
- For use with discrete wires or jacketed cables.
- For assembly instructions, see page 57.



\* For disassembly, add 9,00 (.354) for shell sizes 14 and 16 and add 10,60 (.417) for shell size 24.

| Shell Size | Part Number | Nomenclature    | ØA max.       | B           | ØC max.       | ØD            | E max.        |
|------------|-------------|-----------------|---------------|-------------|---------------|---------------|---------------|
| 14         | 192900-0286 | TNA 14 CCSR-00L | 27,00 (1.063) | 6,40 (.251) | 13,80 (.543)  | 27,00 (1.063) | 67,10 (2.641) |
| 16         | 192900-0343 | TNA 16 CCSR-00L | 30,10 (1.185) | 6,40 (.251) | 17,00 (.669)  | 30,20 (1.189) | 67,10 (2.641) |
| 24         | 192900-0344 | TNA 24 CCSR-00L | 41,80 (1.645) | 8,20 (.322) | 28,00 (1.102) | 42,50 (1.673) | 90,80 (3.574) |

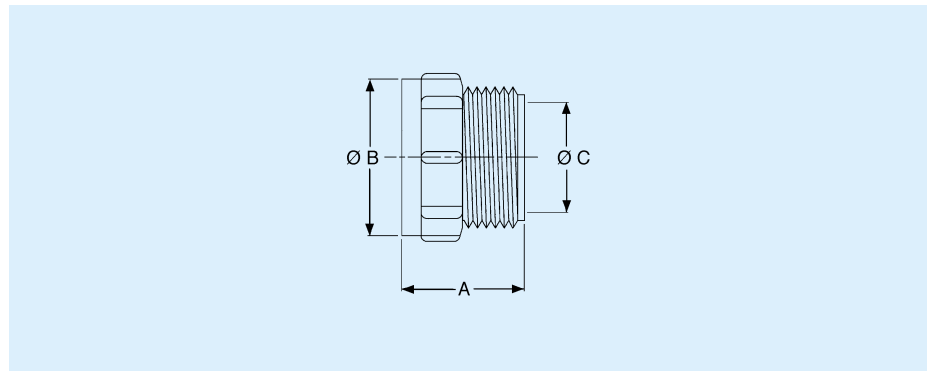
## Adapters

### Type 1



Adapters facilitate the fitting of various accessories to the Neptune housings.

- External threads for use with conduit.



| Shell Size | Part Number | Nomenclature    | A             | ØB            | ØC            |
|------------|-------------|-----------------|---------------|---------------|---------------|
| 24         | 192900-0184 | TNA 24 CA01-20L | 52,80 (2.078) | 40,50 (1.594) | 31,80 (1.252) |
| 24         | 192900-0185 | TNA 24 CA01-25L | 39,00 (1.535) | 40,50 (1.594) | 41,00 (1.614) |
| 16         | 192900-0187 | TNA 16 CA01-20L | 35,00 (1.378) | 28,00 (1.102) | 31,80 (1.252) |

### Type 2



Adapters facilitate the fitting of various accessories to the Neptune housings.

- External grooves for heat shrink tubing or conduit "push-fit" onto the adapter.
- Standard type is recommended for sealed connections to the adaptor.
- Drain hole type is recommended for non sealed connections. E.g. split conduit.

Figure 1

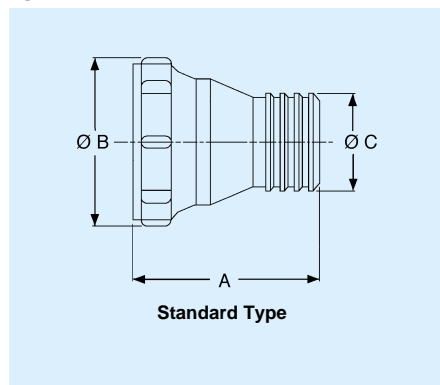
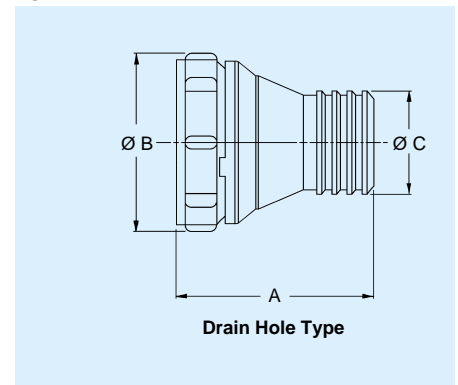


Figure 2



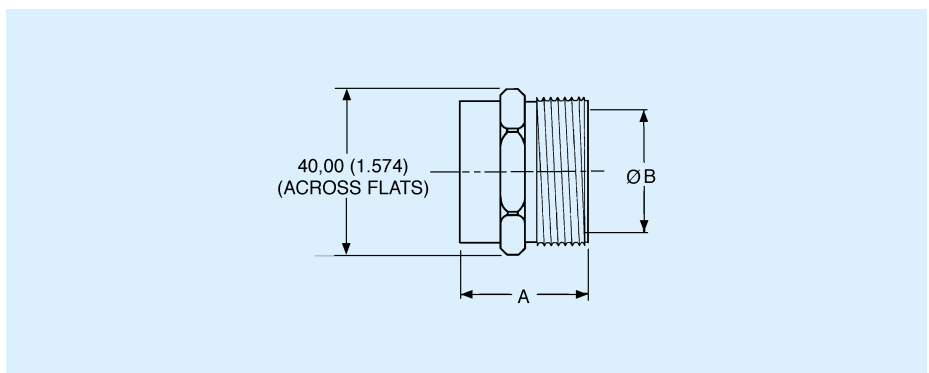
| Shell Size | Figure | Part Number | Nomenclature    | A             | ØB            | ØC           |
|------------|--------|-------------|-----------------|---------------|---------------|--------------|
| 24         | 1      | 192991-0013 | TNA 24 CA02-26L | 48,20 (1.897) | 43,40 (1.708) | 24,00 (.945) |
| 24         | 2      | 192900-0654 | TNA 24 CA22-26L | 48,20 (1.897) | 43,40 (1.708) | 24,00 (.945) |
| 16         | 1      | 192991-0015 | TNA 16 CA02-18L | 37,80 (1.488) | 27,50 (1.082) | 17,40 (.685) |
| 16         | 2      | 192900-0674 | TNA 16 CA22-18L | 37,80 (1.488) | 29,0 (1.14)   | 17,40 (.685) |

### Type 3



Adapters facilitate the fitting of various accessories to the Neptune housings.

- For use with a 90° elbow.
- External threads for use with conduit.



| Shell Size | Part Number | Nomenclature    | A             | ØB            |
|------------|-------------|-----------------|---------------|---------------|
| 24         | 192900-0226 | TNA 24 CA03-34L | 36,50 (1.437) | 34,70 (1.366) |



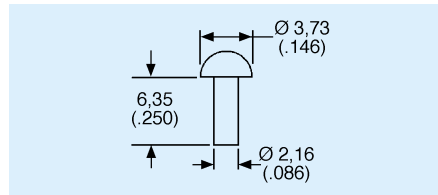
## Blanking Plugs



- Blanking plugs are used to repair damaged seals. If the membrane seal is pierced in a position that is not normally used, then the blanking plug will restore the seal.

Note: Replacement membrane seals are also available. Contact Cannon for details.

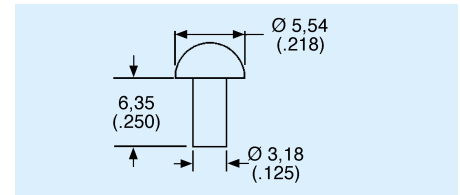
### Blanking Plugs for Signal Cavities



Part Number  
(Pack of 1000)

192991-0018

### Blanking Plugs for Power Cavities



Part Number  
(Pack of 1000)

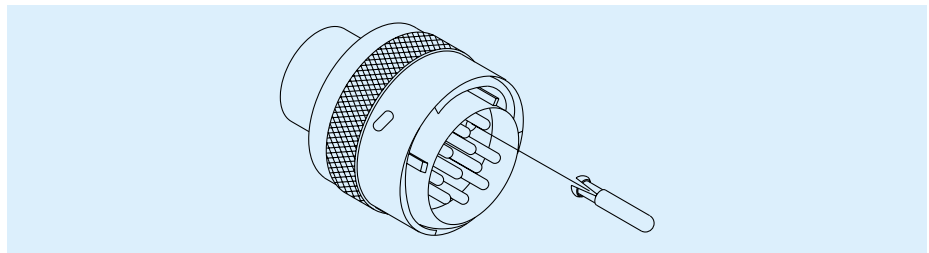
192991-0019

## Discriminating (Keying) Pins

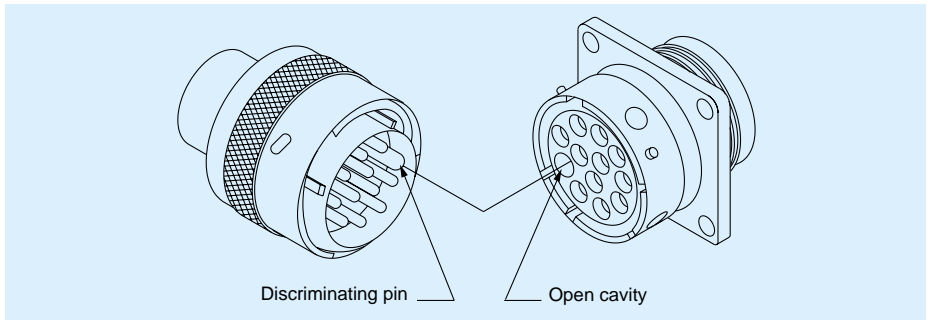


- Discriminating (keying) pins are used to prevent cross-mating of similar connectors. These pins are used in place of a pin contact. The corresponding socket cavity must be left open. If a socket contact is present the discriminating pin will prevent mating.
- The discriminating pin is installed from the mating side of the connector.

### Discriminating Pin Insertion



### Prevents Cross - Mating

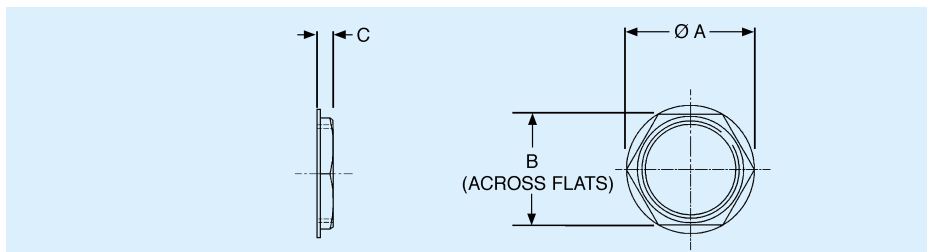


| Pin Type | Part Number<br>(Pack of 25) |
|----------|-----------------------------|
| Signal   | 192990-0000                 |
| Power    | 192900-0189                 |

## Spare Jam Nuts

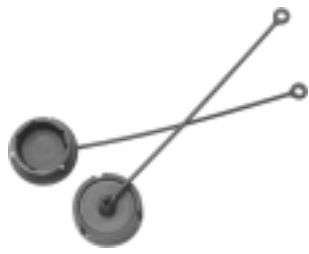


- Jam nut receptacles are packaged with the jam nut included.



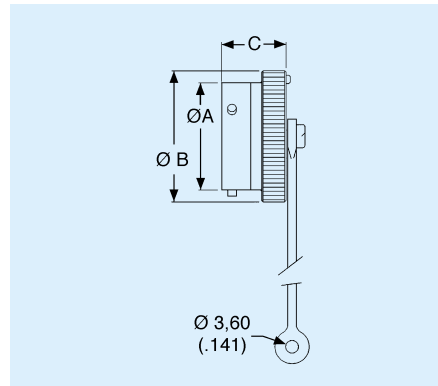
| Shell Size | Part Number<br>(Pack of 100) | Ø A max.      | B Nom         | C           |
|------------|------------------------------|---------------|---------------|-------------|
| 14         | 192900-0489                  | 36,00 (1.417) | 31,00 (1.220) | 6,00 (.236) |
| 16         | 192900-0488                  | 40,60 (1.598) | 35,00 (1.378) | 6,00 (.236) |
| 24         | 192900-0487                  | 56,80 (2.236) | 49,00 (1.929) | 7,00 (.275) |

## Dust Caps

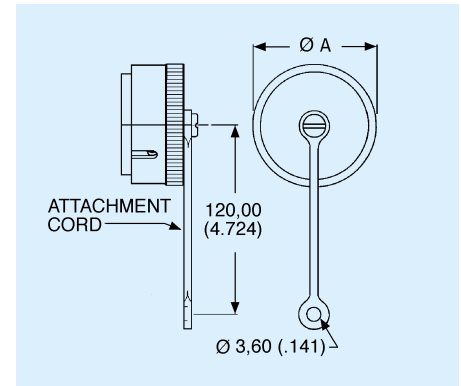


Plastic Dust Caps are available for both plugs and receptacles. It is immaterial whether these are standard or reversed types, only the shell size matters in determining the correct item.

### Plug Dust Cap



### Receptacle Dust Cap



| Shell Size | Part Number (Pack of 100) | ØA            | ØB            | C            |
|------------|---------------------------|---------------|---------------|--------------|
| 16         | 192900-0388               | 25,40 (1.000) | 31,70 (1.248) | 14,30 (.562) |
| 24         | 192900-0392               | 38,10 (1.500) | 44,40 (1.748) | 16,70 (.657) |

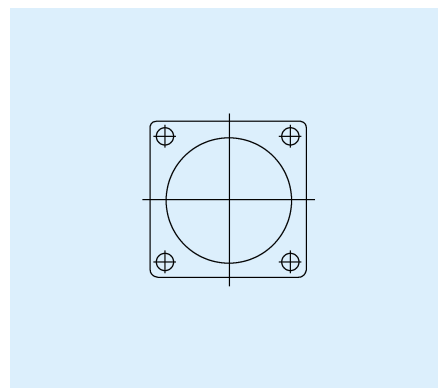
| Shell Size | Part Number (Pack of 100) | ØA            |
|------------|---------------------------|---------------|
| 14         | 192900-0678               | 28,60 (1.126) |
| 16         | 192900-0679               | 31,70 (1.248) |
| 24         | 192900-0683               | 44,40 (1.748) |

## Panel Gaskets



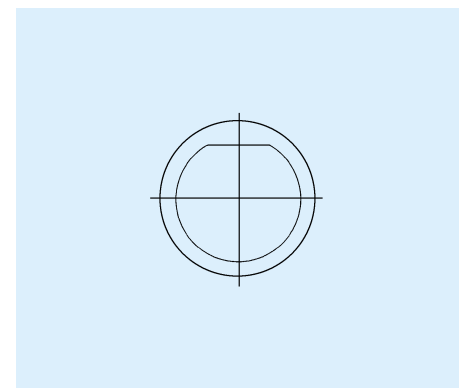
- All panel gaskets are 1,50 (.059) thick.
- Bulk packaged. Sold in packs of 100.

### Flange Type



| Shell Size | Part Number (Pack of 100) |
|------------|---------------------------|
| 14         | 192900-0565               |
| 16         | 192900-0566               |
| 24         | 192900-0687               |

### Jam Nut Type



| Shell Size | Part Number (Pack of 100) |
|------------|---------------------------|
| 14         | 192900-0457               |
| 16         | 192900-0402               |
| 24         | 192900-0458               |