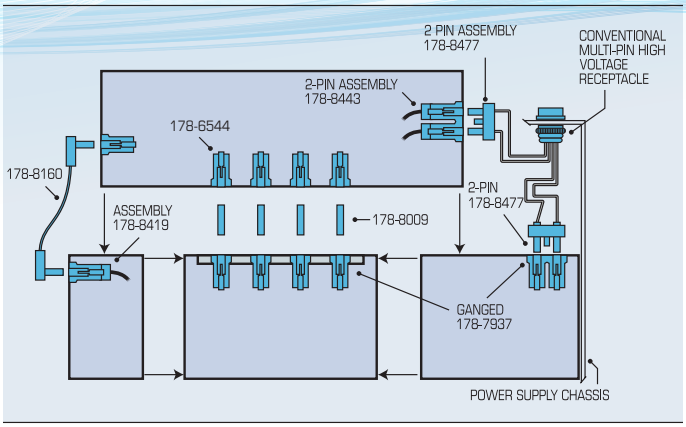
## PeeWee SERIES

PeeWee is one of a family of subminiature, high-voltage connectors for use in high voltage applications where dense electronic packaging is required. The PeeWee connector uses a unique method of sealing high voltage at reduced atmospheric pressure, which allows the connector to be rated at 12 kVDC at 70,000 ft with a temperature range of -55° to 125°C.

## MODULARIZATION

By using PeeWee connectors, it is possible to package or re-package a high voltage power supply into multiple modules which can be easily and reliably mated and un-mated with one another.

The packaging technique permits the pre-testing of individual modules as they are being manufactured and the ability to replace modules or perform routine maintenance in the field when necessary.




Typical cross-section of modularized power supply utilizing PeeWee connectors and cable assemblies.

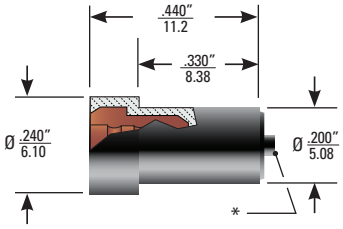
## RECEPTACLES

(Dimensions shown as in/mm)

### Non-Sealed, Front Mount†

**178-6544** (Replaces 178-7937)

- Recommend bonding into epoxy G-10 plate .080" or .120" thick
- **Mounting:** .243" (6.17 mm) diameter hole




### Ceramic-to-Metal, Brazed, Hermetic†

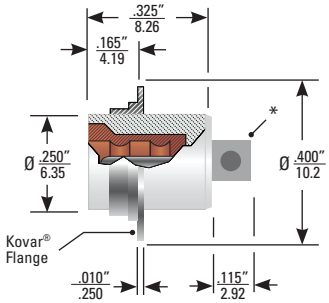
**467-7022**

- **Mounting:** Weld Flange

**467-7024**

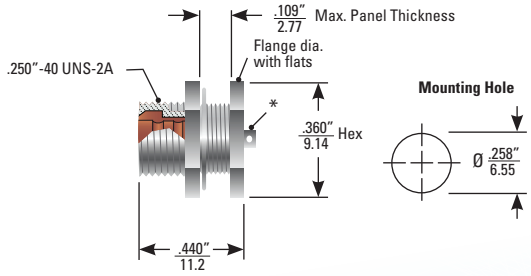
- **Mounting:** Solder Flange

- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** $1x10^{-8}$ cc/s He @1 ATM differential pressure




### Threaded, Non-Sealed, Rear Mount††

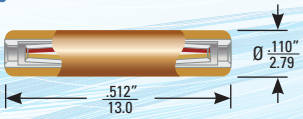
**178-8621**




- **Panel Mounting Torque:** 5 to 6 in-lbs
- **Mounting:** .258" (6.55 mm) diameter hole

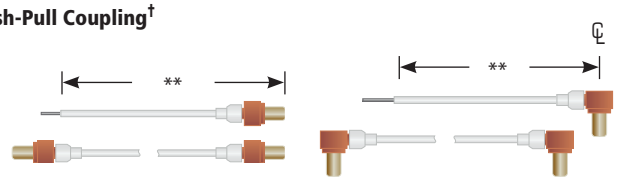
### Double-Ended, Plug Adapter†

**178-8009**

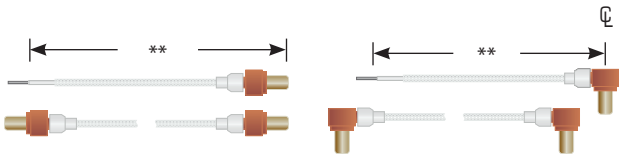



## PLUG CABLE ASSEMBLIES

### Push-Pull Coupling†

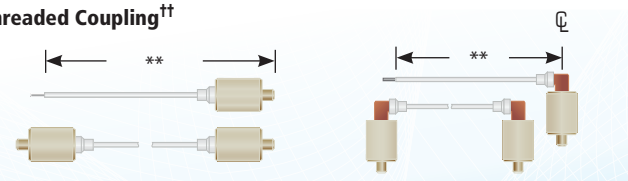



| | SINGLE-ENDED | DOUBLE-ENDED | WIRE TYPE | WIRE P/N |
|---|---|---|---|---|
| STRAIGHT | 178-8166 | 178-8169 | Etched FEP | 178-8111 |
| STRAIGHT | 178-8425 | 178-8426 | Silicone Coated FEP | 178-8066 |
| RT. ANGLE | 178-8172 | 178-8160 | Etched FEP | 178-8111 |
| RT. ANGLE | 178-8423 | 178-8424 | Silicone Coated FEP | 178-8066 |




| | SINGLE ENDED, NOMEX® JACKET | DOUBLE-ENDED, NOMEX® JACKET | WIRE TYPE | WIRE P/N |
|---|---|---|---|---|
| STRAIGHT | 178-8174 | 178-8177 | Etched FEP, NOMEX® Jacket | 178-8118 |
| STRAIGHT | 178-8427 | 178-8428 | Silicone Coated FEP, NOMEX® Jacket | 178-5789 |
| RT. ANGLE | 178-8167 | 178-8163 | Etched FEP, NOMEX® Jacket | 178-8118 |
| RT. ANGLE | 178-8429 | 178-8430 | Silicone Coated FEP, NOMEX® Jacket | 178-5789 |

### Threaded Coupling††




| | SINGLE-ENDED | DOUBLE-ENDED | WIRE TYPE | WIRE P/N |
|---|---|---|---|---|
| STRAIGHT | 178-8398 | 178-8402 | Etched FEP | 178-8118 |
| STRAIGHT | 178-8399 | 178-8403 | Silicone Coated FEP | 178-8066 |
| RT. ANGLE | 178-9345 | 178-9349 | Etched FEP, NOMEX® Jacket | 178-8118 |
| RT. ANGLE | 178-9346 | 178-9350 | Silicone Coated FEP, NOMEX® Jacket | 178-5789 |

† Mates with all non-threaded PeeWee series plug assemblies.
†† Mates with threaded plug assemblies.

***Contact pot will accomodate 24 AWG wire. Do not exceed 400°F when soldering. Use SN 60 solder.**

****Cable Assembly Ordering Information:** All cable assembly cable lengths are to be specified in inches only. For example, to order part number 178-6027 with a cable length of 10 feet 8 inches the cable assembly part number would be specified as 178-6027-128N.

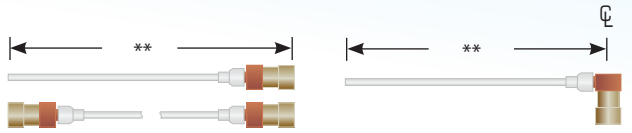
• **Note:** Product numbers and specs subject to change without notice. • Products listed represent only a small selection of Teledyne Reynolds' products please visit www.teledynereynolds.com for the most up to date product information. • Contact Teledyne Reynolds' Engineering to discuss custom designs. **WARNING:** Connectors should **NEVER** be handled mated or unmated when voltage is applied.



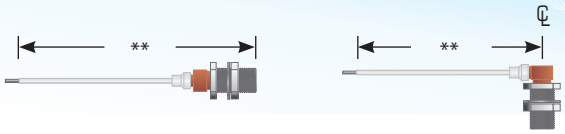
Rev. 01-042113

## RECEPTACLE CABLE ASSEMBLIES

### PUSH-PULL COUPLING†




### THREADED COUPLING††




(• = Same value as above)

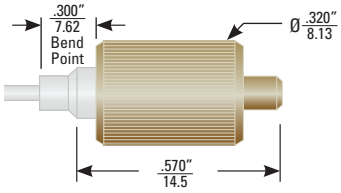
| | SINGLE-ENDED | DOUBLE-ENDED | WIRE TYPE | WIRE P/N |
|---|---|---|---|---|
| STRAIGHT | 178-8110 | 178-8180 | Etched FEP | 178-8111 |
| STRAIGHT | 178-8419 | 178-8420 | Silicone Coated FEP | 178-8066 |
| RT. ANGLE | 178-8251 | N/A | Etched FEP | 178-8111 |
| RT. ANGLE | 178-8422 | • | Silicone Coated FEP | 178-8066 |

| | SINGLE-ENDED | WIRE TYPE | WIRE P/N |
|---|---|---|---|
| STRAIGHT | 178-9499 | Etched FEP | 178-8111 |
| STRAIGHT | 178-9500 | Silicone Coated FEP | 178-8066 |
| STRAIGHT | 178-9502 | Silicone Coated FEP, NOMEX® Jacket | 178-5789 |
| RT. ANGLE | 178-9510 | • | • |

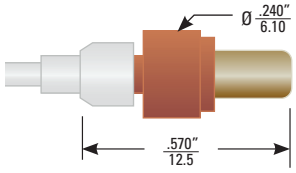
## PLUG DIMENSIONS

(Dimensions shown as in/mm)

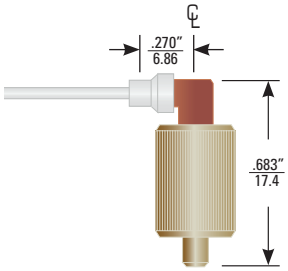
### Straight Threaded



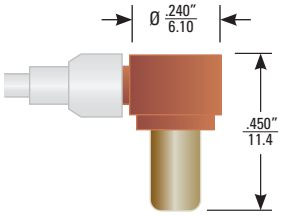

### Straight Non-Threaded




### Right Angle Threaded

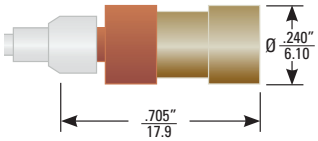



### Right Angle Non-Threaded

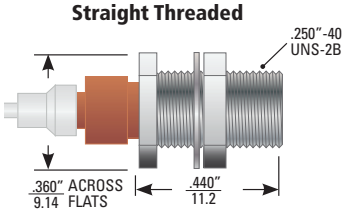



## RECEPTACLE DIMENSIONS

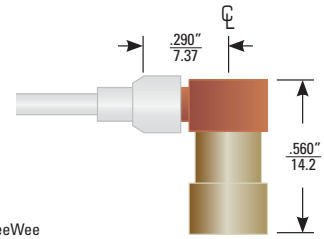
### Straight Non-Threaded



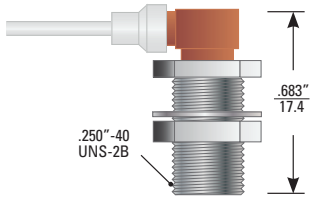

### Straight Threaded




### Right Angle Non-Threaded




### Right Angle Threaded




Note: Refer to the Teledyne Reynolds' Multi-pin High Voltage Connectors catalog for the 2-pin version of the PeeWee Series. Refer to the Space Qualified (SQ) Connectors catalog for the SQ PeeWee designs.

## SERIES SPECIFICATIONS

(• = Same value as above)

| Series | Voltage Rating (kVDC) | Altitude Rating (ft) | Operating Temp. (°C) | Current Rating (Amp) | Receptacle Insulator Material | Plug Insulator Material | Coupling Style | Coupling Nut Material/ Finish | Plug Contact Material/Finish (Socket) | Recept. Contact Material/Finish (Pin) | Wire Type | Wire Insulation | Braid Termination | Test Voltage @ 70,000 ft | Test Voltage @ Sea Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PeeWee | 12 | 70,000 | -55 to 125 | 1.6 | Plastic or Ceramic | Plastic | Push-Pull or Threaded | Plastic | BeCu/Au with CRES hood | Brass/Au or Kovar® | Non-Shielded | FEP | N/A | 18 | N/A |

## WIRE SPECIFICATIONS

| Part # | Operating Voltage (kVDC) | Conductor | | | Insulation | | Shielding | | | Jacket | | Impedance Ω | Attenuation dB/100 ft @ 400mhz | Capacitance pF/FT (Nom.) @1k HZ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AWG | Strands | Plating | Material | ø in./mm | AWG | Plating | ø in./mm | Material | ø in./mm | | | |
| 178-5789 | 18 | 24 | 19/36 | SPC | Silicone Coated FEP | 0.060 / 1.52 | N/A | N/A | N/A | NOMEX® | TBD | N/A | N/A | N/A |
| 178-8111 | • | • | • | • | Etched FEP | 0.050 / 1.27 | • | • | • | N/A | N/A | • | • | • |
| 178-8066 | • | • | • | • | Silicone Coated FEP | 0.060 / 1.52 | • | • | • | • | • | • | • | • |
| 178-8118 | • | • | • | • | Etched FEP | 0.050 / 1.27 | • | • | • | NOMEX® | TBD | • | • | • |

† Mates with all non-threaded PeeWee series plug assemblies.
†† Mates with threaded plug assemblies.
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