

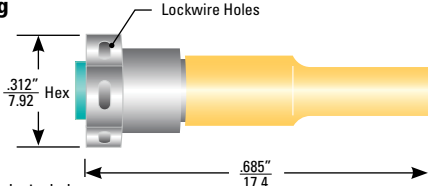
The 600 and 600 SL series are a complete line of subminiature, coaxial, high voltage connectors. In production since 1964, these connectors have proven to be extremely reliable in a variety of both, Aerospace/Defense and high-end commercial applications. The 600 series is also the smallest coaxial, high voltage connector rated for use at 70,000 ft available on the market.

Information on the Space Qualified (SQ) 600 SQ series can be found in Teledyne Reynolds' Space Qualified Products catalog.

PLUG KITS

(Dimensions shown as in/mm)

Shielded, Hex Coupling
178-7110

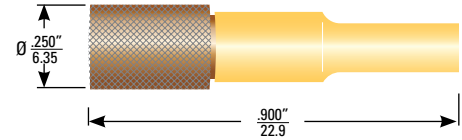


- Stainless steel coupling nut, lockwire holes
- Plug kits mate both 600 and 600 SL receptacles

Uses Shielded Wire: 167-2896

- For non-shielded version use wire 167-9634 or 167-9609.
 - While plug kits are available for customer-fabricated cable assemblies, Teledyne Reynolds highly recommends purchasing cable assemblies because of difficulties customers may experience in assembly and testing.
 - Assembly instructions can be found at www.teledynereynolds.com or by contacting Teledyne Reynolds' Engineering.
- Note: It is not recommended to mate the stainless steel coupling nut plugs with the gold plated, brass body receptacles. Likewise with the gold plated coupling nut plugs and stainless steel receptacles.

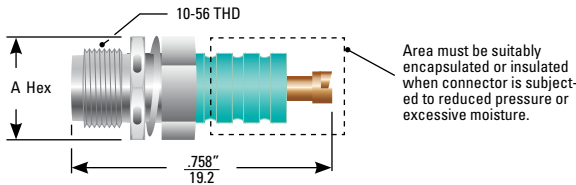
Shielded, Knurled Coupling
167-3770



- Gold-plated, brass body and knurled coupling nut, no lockwire holes

RECEPTACLES

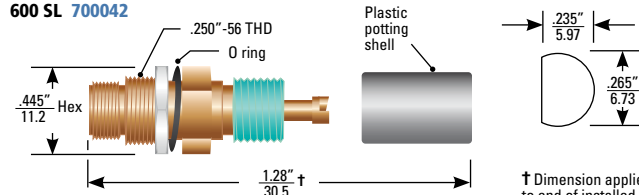
Non-Sealed, Front Panel Mount
600 178-7111 & 167-3771
600 SL 700032 & 700041



Area must be suitably encapsulated or insulated when connector is subjected to reduced pressure or excessive moisture.

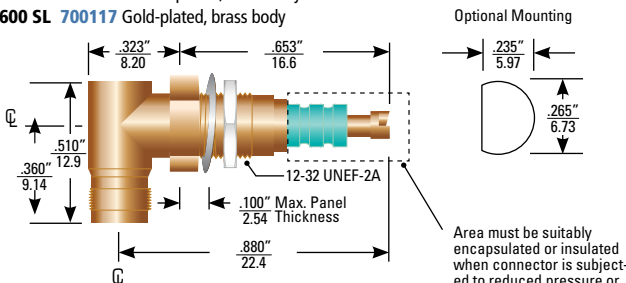
- 178-7111 & 700032 Stainless steel body, lockwire holes. "A" is .312" (7.92mm)
 167-3771 & 700041 Same as 178-7111 & 700032 except for "A" is .250" (6.35mm), gold plated, brass body and no lockwire holes
- **Mating Torque:** 2 to 3 in-lbs
 - **Mounting:** Requires .197" (5.0 mm) diameter hole
 - **Panel Mounting Torque:** 8 to 10 in-lbs

Sealed, Rear Panel Mount
600 167-4078
600 SL 700042



- 167-4078 & 700042 Gold-plated, brass body, no lockwire holes
- Sealed for 1 ATM differential pressure
 - **Max. Leak Rate:** 1x10⁶ cc/s He @ 1 ATM differential pressure
 - **Mating Torque:** Finger tight
 - **Mounting:** Requires clearance for .250"-56 UNS thread or optional "D" hole (shown)
 - **Panel Mounting Torque:** 8 to 10 in-lbs

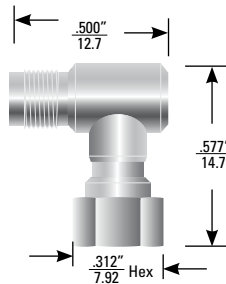
Right Angle, Non-Sealed, Front Mount
600 167-9220 Gold-plated, brass body
600 SL 700117 Gold-plated, brass body



Area must be suitably encapsulated or insulated when connector is subjected to reduced pressure or excessive moisture.

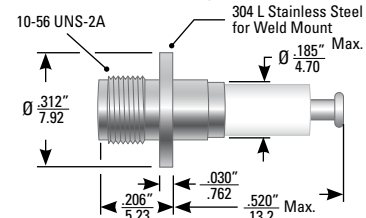
- **Mating Torque:** Finger tight
- **Mounting:** See optional D-hole mounting
- **Panel Mounting Torque:** 8 to 10 in-lbs

Right Angle Adapter
600 178-7414 Stainless steel body, hex nut, no lockwire holes.



- **Mating Torque:** 2 to 3 in-lbs

Ceramic-to-Metal, Brazed Hermetic
600 467-7029 Weld Flange
467-7009 Solder Flange (Not shown)



- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10⁸ cc/s He @ 1 ATM differential pressure
- **Mating Torque:** 2 to 3 in-lbs

CABLE ASSEMBLIES

Single-Ended Shielded, Pigtailed
Hex Plug
600 178-7115
600 SL 700035



Knurled Plug
600 167-3305
600 SL 700039



Double-Ended Shielded
Hex Plug
600 178-7113
600 SL 700034



Knurled Plug
600 167-3306
600 SL 700036



Single-Ended, Non-Shielded (Not shown)

Hex Plug
600 178-8210
600 SL 700043
Uses .100" (2.54 mm) Dia. FEP Wire 167-9609

Knurled Plug
600 167-7667
600 SL 700044
Uses .100" (2.54 mm) Dia. Silicone Wire 167-9634

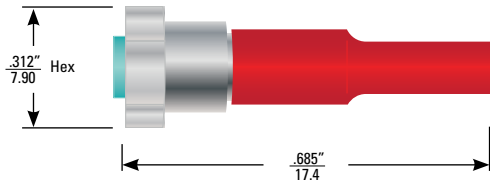
• **Note:** Product numbers and specs subject to change without notice. • Products listed represent only a small selection of Teledyne Reynolds' products please visit www.teledynereynolds.com for the most up to date product information. • Contact Teledyne Reynolds' Engineering to discuss custom designs.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

The 610 and 610 SL series have a larger coupling nut and threads than the 600/600 SL series and are recommended for airborne applications or any application where numerous mating operations are required. The difference in threads between the 600/600 SL and 610/610 SL connectors can be used as "polarization" to prevent cross mating in multiple circuit applications, since they are not intermateable.

Series 610 cable assemblies effect an altitude seal through the use of internal seals. This design feature allows the mated assemblies to operate at altitudes up to 70,000 ft with no encapsulation within a temperature range of -55° to 125°C.

PLUG KITS

Shielded, Hex Coupling
 167-9363



- Stainless steel body, no lockwire holes
- Plug kits mate both 610 and 610 SL receptacles

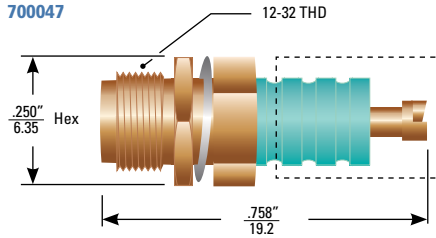
Uses **Shielded Wire: 167-2896**

While plug kits are available for customer-fabricated cable assemblies, Teledyne Reynolds highly recommends purchasing cable assemblies because of difficulties customers may experience in assembly and testing.

RECEPTACLES

(Dimensions shown as in/mm)

Non-Sealed, Front Panel Mount
 610 167-9364
 610 SL 700047



Area must be suitably encapsulated or insulated when connector is subjected to reduced pressure or excessive moisture.

- Gold-plated, brass body, no lockwire holes
- **Mating Torque:** 3 to 4 in-lbs
- **Mounting:** Requires .197" (5.0 mm) dia. hole
- **Panel Mounting Torque:** 12 to 14 in-lbs

CABLE ASSEMBLIES

Single-Ended, Shielded, Pigtailed
 610 167-9487
 610 SL 700049



Double-Ended, Shielded
 610 167-8920
 610 SL 700048



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 | (kVDC) Test Voltage @ 70,000 ft | (kVDC) Test Voltage @ Sea Level |
|--------|-----------------------|----------------------|----------------------|----------------------|-------------------------------|-------------------------|----------------|------------------------------|---------------------------------------|---------------------------------------|--------------------------|-----------------|-------------------|---------------------------------|---------------------------------|
| 600 | 5 | 70,000 | -55 to 125 | 5 | Plastic or Ceramic | Plastic | Threaded | Brass/Au or CRES | BeCu/Au with CRES hood | Brass/Au or Kovar® | Shielded or Non-shielded | FEP or Silicone | Solder | 7.5 | N/A |
| 600 SL | 10 | Sea Level | • | • | • | • | • | • | • | • | Shielded | FEP | • | N/A | 15 |
| 610 | 5 | 70,000 | • | • | Plastic | • | • | • | CRES | • | • | • | • | 7.5 | N/A |
| 610 SL | 10 | Sea Level | • | • | • | • | • | • | • | • | • | • | • | N/A | 15 |

WIRE SPECIFICATIONS

| Part Number | 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 | | | |
| 167-9634 | 10 | 20 | 19/30 | SPC | Silicone | 0.100 / 2.54 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 167-2896* | 18 | 26 | 19/38 | • | FEP | 0.050 / 1.27 | 36 | SPC | 0.075 / 1.91 | FEP | 0.095 / 2.41 | 46 | 25 | 33.7 |
| 167-9609 | 30 | 20 | 19/32 | TPC | • | 0.100 / 2.54 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

* For reference, part number 167-2896 is known as "Type L" cable. Kovar is a registered trademark of the Carpenter Technology Corporation.