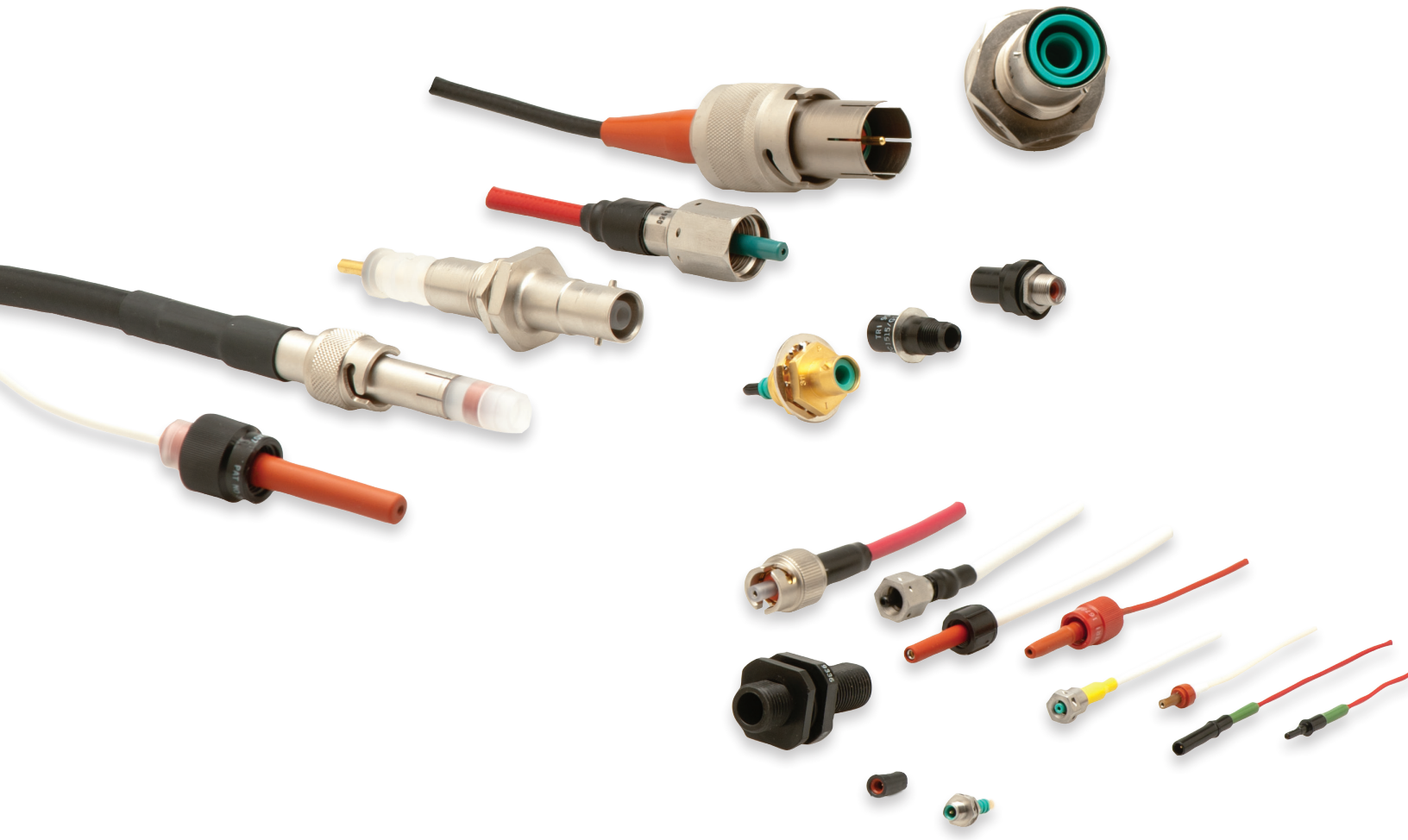
HIGH VOLTAGE
SINGLE-PIN CONNECTORS



INTRODUCTION

This catalog contains a wide selection of single-pin high voltage connectors and cable assemblies. These products, some of which have been in production for more than 50 years, reflect the legacy of Teledyne Reynolds' strong commitment to engineering, quality and customer service.

Teledyne Reynolds, Inc. (TRI) leads the connector industry worldwide in the design of high voltage connectors capable of operating at altitudes up to 70,000 ft (21.34 kM)while exposed to temperatures as low as -55° and up to 125°C. Not all connectors in this catalog are designed to operate at those extremes, but all will perform with a high degree of reliability when operated as specified.

Within this catalog is the Advanced Group of connectors. Technologically advanced, these connectors represent the state-of-the-art in high voltage connector design and manufacture.

TELEDYNE REYNOLDS
Everywhereyoulook™

Rev. 02-061912

PATENTED ADVANCED INTERFACE SEALING SYSTEM

Teledyne Reynolds, Inc. (TRI) pioneered the development of miniature high voltage connectors used within non-pressurized areas of high altitude flying aircraft over forty years ago. This ingenuity is clearly evident in Teledyne Reynolds' patented Advanced Interface Sealing System that is used in the Advanced Group of connectors. The Advanced Group consists of a series of nine connector families, four of which are included this brochure. The following are the more significant advantages of selecting from the Advanced Group of high voltage connectors.

REPAIRABLE / REPLACEABLE

The seals are molded from a proprietary blend of high grade silicone rubber which allows the seal to function over a temperature range of -55° to 125°C. Because the seal is a separate component of the connector, it can be individually inspected, tested and installed. In addition, if necessary a damaged seal can be removed and replaced. This is not the case in conventional high voltage connectors where the insulator is one piece and a failure of any one pin or circuit usually results in the entire connector or, worse yet, a total cable assembly being scrapped or subjected to a costly repair operation.

SCALABILITY

The unique design of the Advanced Interface Sealing System permits the size of the seal and the connector to be scaled up or down to accommodate higher or lower operating voltages and larger or smaller mounting spaces. Our largest seal is in the Max and Maxxum series and the smallest in the JR series. This enables a high degree of customization to meet evolving customer needs.

MATING

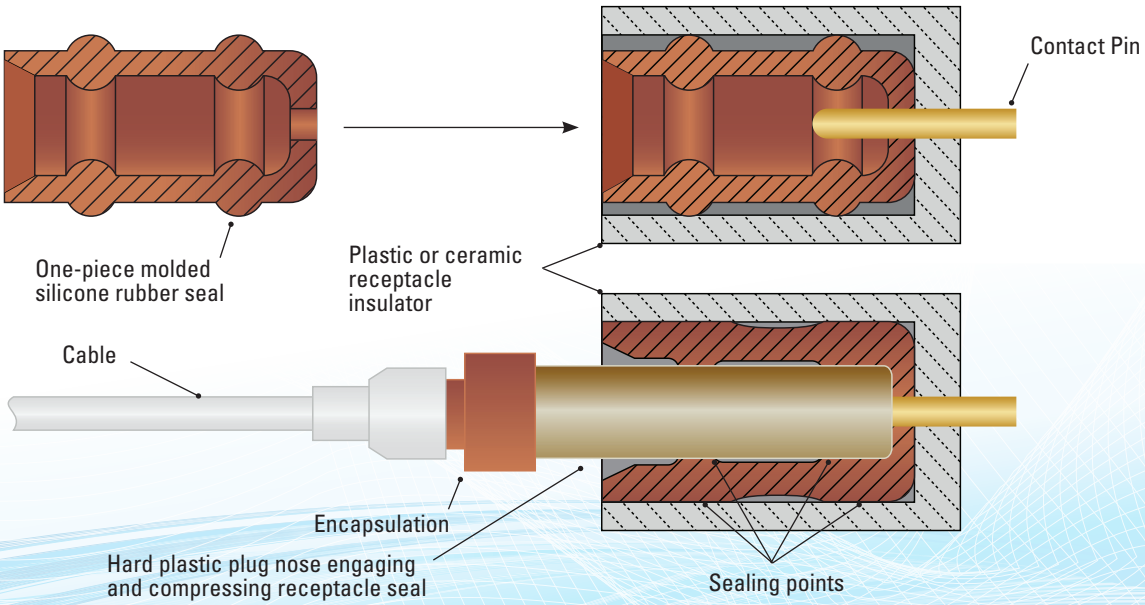
Conventional high voltage connectors require very high mating torque levels in order to effect and maintain an axial high voltage seal. In addition, they must continually compensate for the effects of compression set which is common in connectors using a cone shape or axial compression to achieve a seal. Compensating devices are expensive, bulky and often require special tools and even gauges to reliably mate the connectors.

Connectors using the Advanced Interface Sealing System require no undue mating forces and no compensation is ever required to maintain the integrity of the mated interface seal. In fact, once these connectors are fully mated, they need only be sufficiently held in place to resist severe vibration and shock. This is due to the use of redundant radial seals in the Advanced Interface Sealing System. Once the hard plastic insulator of the plug engages the radial rings on the receptacle seal, the high voltage interface seal is complete and will remain so until the plug insulator is withdrawn during any subsequent un-mating operation. The engagement of the seal is illustrated in Figure 1 below.

DESIGN FLEXIBILITY

Systems and Component Packaging Engineers will find connectors and the appropriate cable in the Advanced Group to satisfy a wide range of voltage and current ratings, shielded or non-shielded, ceramic or plastic, and single or multi-pin configurations. These choices allow the designer to utilize available space and maximize package density. Visit the www.teledynereynolds.com or speak to one of our Application Engineers to learn about the variety of shapes and contact arrangements that can be assembled from products in the Advanced Group.

ADVANCED INTERFACE SEAL ENGAGEMENT



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SINGLE-PIN CONNECTOR PRODUCT MATRIX

(Y = Yes, N = No, and • = Same value as above)

Series	Voltage Rating (kV)	At 70,000 ft	Advanced Series	Coupling Method	Shielded	Ceramic Feedthrough	Bag Assembly*	Temperature Rating (°C)
600	5	Y	N	Threaded	Y	Y	Y	-55 to 125
600 SQ	5**	N**	•	•	•	•	N	•
610	5	Y	•	•	•	N	Y	•
31	6.5	N	•	Bayonet	•	Y	•	-40 to 85
600 SL	10	•	•	Threaded	•	•	•	-55 to 125
610 SL	•	•	•	•	•	N	•	•
730/830	•	Y	•	•	N	•	•	•
531 SL	•	N	•	Bayonet	Y	•	•	-40 to 85
C 730	•	•	•	Threaded	•	•	N	-55 to 95
PeeWee	12	•	Y	Push-on/Pull-off & Threaded	N	Y	•	-55 to 125
531	15	•	N	Bayonet	Y	N	Y	-40 to 85
310	•	•	•	•	•	Y	•	•
311	•	•	•	•	•	•	•	•
737	•	•	•	Threaded	N	N	•	-55 to 125
C 737	•	•	•	•	Y	•	N	-55 to 95
SID	•	•	•	Push-on/Pull-off	N	•	•	•
Century	•	•	Y	Push-on/Pull-off & Threaded	Y	Y	•	-55 to 125
HVID	17, 45, 60	N	N	Push-on/Pull-off	N	N	Y	-40 to 85
Century+	18	Y	Y	Threaded	Y	Y	N	-55 to 125
521 SL	20	N	N	Bayonet	•	N	Y	-40 to 85
720	•	Y	•	Threaded	N	Y	•	-55 to 125
C 720	•	•	•	•	Y	N	N	•
521	25	•	•	Bayonet	•	•	Y	-40 to 85
727	•	•	•	Threaded	N	•	•	-55 to 125
C 727	•	•	•	•	Y	•	N	-55 to 95
Maxxum	•	•	Y	•	•	Y	•	-55 to 125
C 735	30	•	N	•	•	N	•	-55 to 95
401	40	•	•	Bayonet	•	•	•	-55 to 125
C 740	•	•	•	Threaded	•	•	•	-55 to 95
C 750	50	•	•	•	•	•	•	•

Teledyne Reynolds welcomes the opportunity to submit alternate design proposals when our standard items do not satisfy your requirements.

*Bag assemblies enable customers to build their own cable assemblies using assembly instructions found at www.teledynereynolds.com. Wire is not included in kits and may be ordered separately from Teledyne Reynolds. Although this option is available, Teledyne Reynolds highly recommends purchasing already built cable assemblies because of difficulties customers may experience in assembly and testing.

**Designed only to operate at a minimum vacuum of 10 millitorr to deep space.

600 SERIES | 5 kVDC | 70,000 FT
600 SL SERIES | 10 kVDC | SEA LEVEL
-55° TO 125°C

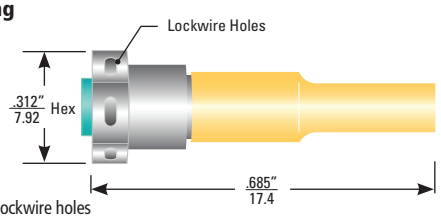
The 600 and 600 SL series are a complete line of subminiature, coaxial, high voltage connectors. In production since 1964, these connectors have proven to be extremely reliable in a variety of both, Aerospace/Defense and high-end commercial applications. The 600 series is also, possibly, the smallest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

Various adapters are available on special order.

PLUG KITS

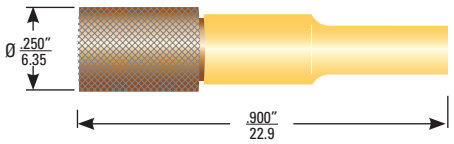
(Dimensions shown as in/mm)

Shielded, Hex Coupling
178-7110



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

Shielded, Knurled Coupling
167-3770



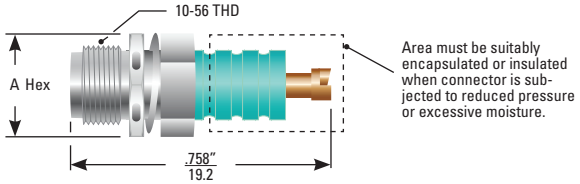
- Gold-plated, brass body and knurled coupling nut, no lockwire holes

Uses Shielded Wire: 167-2896

- Non-shielded version available.
- While plugs 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.

RECEPTACLES

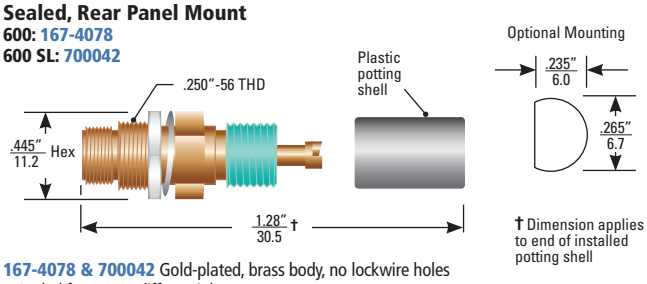
Non-Sealed, Front Panel Mount
600: 178-7111 & 167-3771
600 SL: 700032 & 700041



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

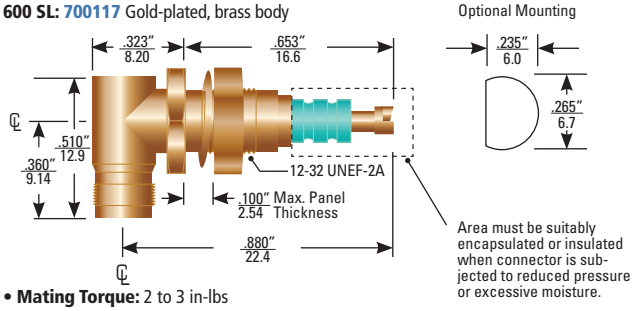
Sealed, Rear Panel Mount
600: 167-4078
600 SL: 700042



167-4078 & 700042 Gold-plated, brass body, no lockwire holes

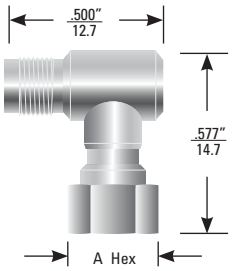
- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** $1x10^{-6}$ cc/s He @ 1 ATM differential pressure
- **Mating Torque:** 2 to 3 in-lbs
- **Mounting:** Requires clearance for .250"-56 UNS thread or optional "D" hole (shown)
- **Panel Mounting Torque:** 8 to 10 in-lbs

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



- **Mating Torque:** 2 to 3 in-lbs
- **Mounting:** See optional D-hole mounting
- **Panel Mounting Torque:** 8 to 10 in-lbs

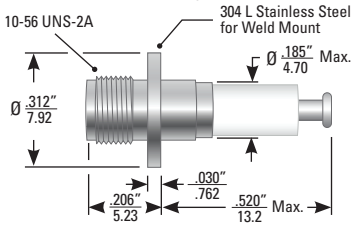
Right Angle Adapter
600: 178-7414
167-9063
600 SL: 700116



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

178-7414 Stainless steel body, hex nut, no lockwire holes. "A" is .312" (7.92mm)
167-9063 Same as 178-7414 except for "A" is .250" (6.35mm), gold-plated, brass body, knurled coupling nut
700116 Same as 167-9063

Ceramic-to-Metal, Brazed Hermetic
600: 467-7029 Weld Flange
467-7009 Solder Flange



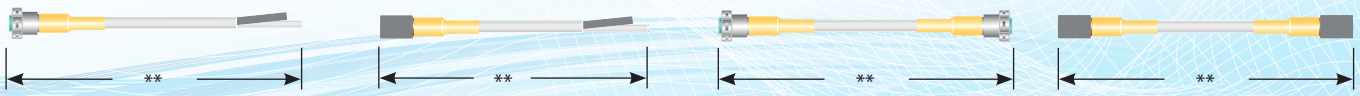
- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** $1x10^{-8}$ cc/s He @1 ATM differential pressure
- **Mating Torque:** 2 to 3 in-lbs

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.**

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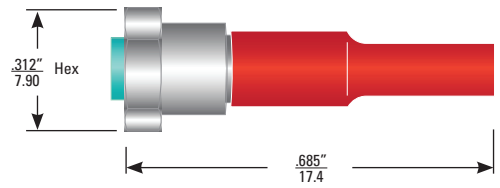
The 610 and 610 SL series have a larger coupling nut and threads than the 600/600 SL series and are recommended for airborne applications or any application where numerous mating operations are required. The difference in threads between the 600/600 SL and 610/610 SL connectors can be used as "polarization" 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

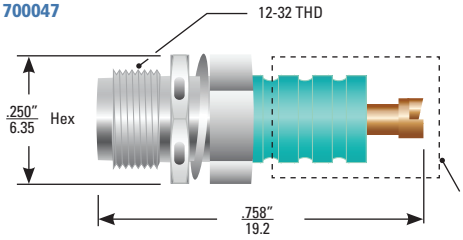
Uses Shielded Wire: 167-2896

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



- **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

**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.
For any cable assemblies starting with a "700" prefix the part number is designated using the following part number sequence: **Base Part Number - Color Code – Cable Length (inches)**
The Color Code, or cable color, is specified by adding a dash and a two digit code (per Table 1) to the Base Part Number.
The Cable Length is specified in inches by adding a dash and four digits after the Color Code. For example, 700039-09-0120 is a 120 inch cable assembly built with white wire.
Please contact Teledyne Reynolds' Engineering department if you have any questions or need further clarification.

00 BLACK	02 RED	04 YELLOW	06 BLUE	08 GRAY	10 NATURAL
01 BROWN	03 ORANGE	05 GREEN	07 VIOLET	09 WHITE	

Table 1: Cable Color codes

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	1	Plastic or Ceramic	Plastic	Threaded	Brass/Au or CRES	BeCu/Au with CRES hood	Brass/Au	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	•	•	•	•	•	•	•	•	7.5	N/A
610 SL	10	Sea Level	•	•	•	•	•	•	•	•	•	•	•	N/A	15

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			
167-9634	10	•	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.

SERIES 31 SEA LEVEL RATED

These reliable coaxial connectors have been in production since 1950. Available as plug connectors, kits and cable assemblies, they mate all series 311 Cond. 1 connectors and adaptors.

SERIES 310 FOR OPERATION AT REDUCED PRESSURE

A sealed version of the series 31 that mates all series 311 Cond. 1 receptacles and adaptors.

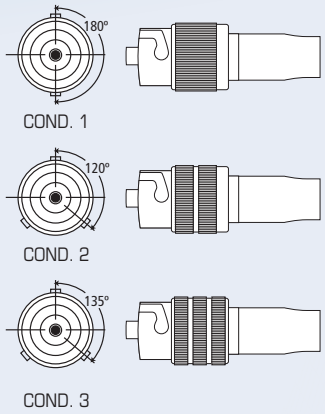
SERIES 311 FOR OPERATION AT REDUCED PRESSURE

This series features seals for reduced pressure operation, a shell-to-shell grounding spring finger shield, a hooded female socket and three polarizing conditions as shown in the illustration to the right, the bayonet coupling has machined rings to designate polarization by either sight or feel.

311 SERIES POLARIZATION

Series 311 connectors feature interface polarization which allows the system design engineer to use the same basic connector in three different circuits without concern of mismating the circuits.

Polarization is controlled by the numbers and/or dissimilar spacing of the bayonet lugs on the receptacle. There are three conditions of polarization available.

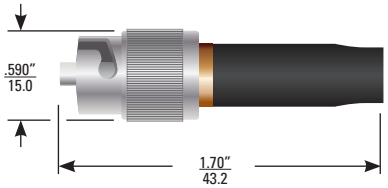


PLUG KITS

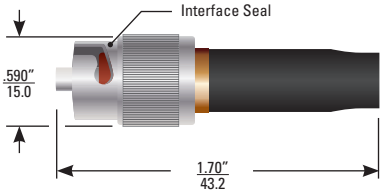
(Dimensions shown as in/mm)

Shielded

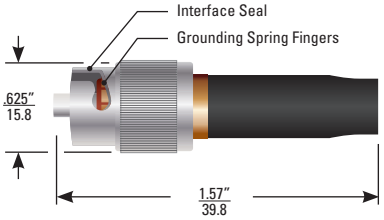
31: 167-0669 Uses Wire 167-2669



310: 167-4356 Uses Wire 167-2669
167-4419 Uses Wire 167-2896



311: See table below



311 P/N	POLARIZATION	WIRE P/N
167-7624-1	1	167-2669
167-7624-2*	2	•
167-7624-3*	3	•
167-7918-1	1	167-2896
167-7918-2*	2	•
167-7918-3*	3	•

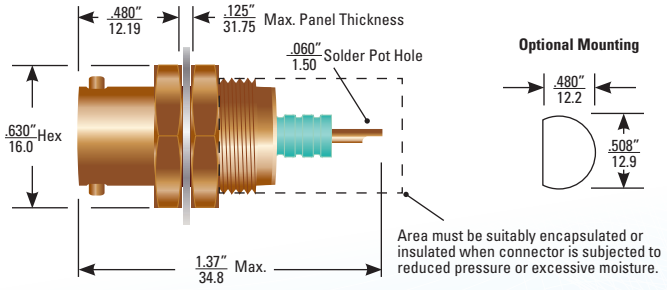
(• = Same value as above)

- While plugs 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.
- 31 and 310 series plugs mate 311 series conditional polarized recepticles.

RECEPTACLES

Polarized, Non-Sealed, Front Panel Mount

311 COND. 1: 167-7792
311 COND. 2*: 167-7793
311 COND. 3*: 167-7794



- **Panel Mounting Torque:** 36 to 42 in-lbs

Ceramic-to-Metal, Brazed Hermetic (Not Shown)

311 COND. 1*: 167-7605-1
311 COND. 2*: 167-7605-2
311 COND. 3*: 167-7605-3

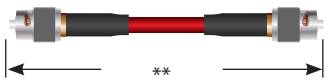
- Sealed for 1 ATM differential pressure
- **Mounting:** Weld Flange
- **Max. Leak Rate:** $1x10^{-8}$ cc/s He @1 ATM differential pressure

*** Special order item**

CABLE ASSEMBLIES

Single-Ended, Shielded

Double-Ended, Shielded



Built Using 167-2669 Wire

(• = Same value as above)

SERIES	POLARIZATION	SINGLE-ENDED	DOUBLE-ENDED
31	1	167-1617	167-1615
310	•	167-4360	167-4358
311	•	178-7032	178-7026
311*	2	178-7033	178-7027
311*	3	178-7034	178-7028

Built Using 167-2896 Wire (Not shown)

SERIES	POLARIZATION	SINGLE-ENDED	DOUBLE-ENDED
310*	1	167-4425	167-4424
311*	•	178-7035	178-7029
311*	2	178-7036	178-7030
311*	3	178-7037	178-7031

****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.

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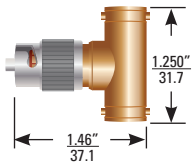
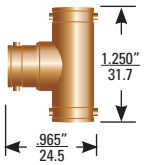
SPECIAL ORDER ADAPTORS

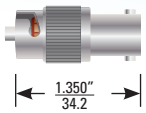
(Dimensions shown as in/mm)



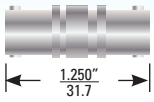
"T" ADAPTOR MALE-FEMALE-MALE
COND. 1: 167-7825-1
COND. 2: 167-7825-2
COND. 3: 167-7825-3



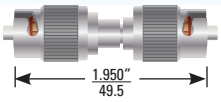
"T" ADAPTOR MALE-MALE-MALE
COND. 1: 167-7826-1
COND. 2: 167-7826-2
COND. 3: 167-7826-3



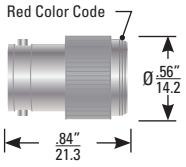
STRAIGHT ADAPTER FEMALE-MALE
COND. 1 to 2: 178-7146
COND. 1 to 3: 178-7152
COND. 2 to 1: 178-7157
COND. 2 to 3: 178-7162
COND. 3 to 1: 178-7158
COND. 3 to 2: 178-7163



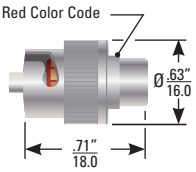
STRAIGHT ADAPTER MALE-MALE†
COND. 1 to 1: 178-6484
COND. 1 to 2: 178-6485
COND. 1 to 3: 178-6486
COND. 2 to 2: 178-6487
COND. 2 to 3: 178-6488
COND. 3 to 3: 178-6489
†Also available with gold plating.



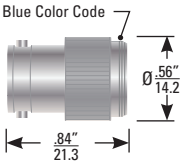
STRAIGHT ADAPTER FEMALE-FEMALE
COND. 1: 178-7631-1
COND. 2: 178-7631-2
COND. 3: 178-7631-3



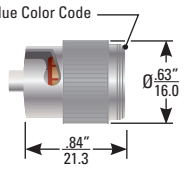
MALE SHORTING PLUG
COND. 1: 167-7905-1
COND. 2: 167-7905-2
COND. 3: 167-7905-3



FEMALE SHORTING PLUG
COND. 1: 167-7903-1
COND. 2: 167-7903-2
COND. 3: 167-7903-3



MALE PROTECTIVE COVERΔ
COND. 1: 178-7058-1
COND. 2: 178-7058-2
COND. 3: 178-7058-3
ΔNo electrical function.



FEMALE PROTECTIVE COVERΔ
COND. 1: 167-7864-1
COND. 2: 167-7864-2
COND. 3: 167-7864-3
ΔNo electrical function.

SPECIAL ORDER CONNECTORS & ADAPTORS (Not shown)

(• = Same value as above)

PART #	DESCRIPTION	PANEL MOUNT STYLE	POLARIZATION
178-7375	Receptacle	Rear	1
178-7376	•	•	2
178-7377	•	•	3
178-7023	Sealed Receptacle	•	1
178-7024	•	•	2
178-7025	•	•	3

PART #	DESCRIPTION	PANEL MOUNT STYLE	POLARIZATION
178-7370	Sealed Receptacle	Front	1
178-7371	•	•	2
178-7372	•	•	3
167-7904-1	Sealed Bulkhead feed-through Male-Male	•	1
167-7904-2	•	•	2
167-7904-3	•	•	3
167-7905-1	Hermetic Receptacle	•	1
167-7905-2	•	•	2
167-7905-3	•	•	3

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
31	6.5	Sea Level	-40 to 85	10	Plastic or Ceramic	Plastic	Bayonet	Brass/Ni	BeCu/Au with CRES hood	Brass/Au	Shielded	PE	Crimp	N/A	7.5
310	15	70,000	•	•	•	•	•	•	•	•	•	FEP or PE	•	21	N/A
311	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

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			
167-2896	18	26	19/38	SPC	FEP	0.050/1.27	36	SPC	0.075/1.91	FEP	0.095/2.41	46	25	33.7
167-2669	20	16	19/29	TPC	PE	0.118/3.00	•	TPC	0.150/3.81	PE	0.195/4.95	31	16	48

* For reference, part numbers 167-2896 and 167-2669 are known as "Type L" cable and " Type C" cable, respectively.

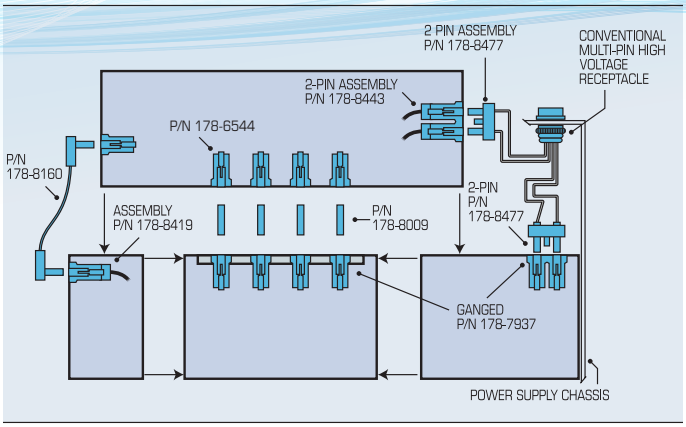
PeeWee SERIES

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.

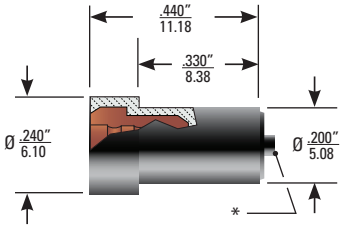
RECEPTACLES

(Dimensions shown as in/mm)

Non-Sealed, Front Mount Panel Connector†

178-6544 (Replaces P/N 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 Connector†

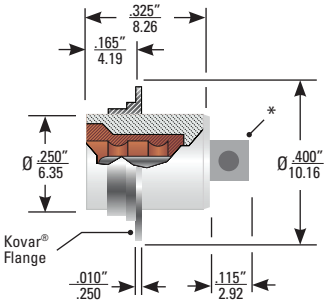
467-7022

- **Mounting:** Weld Flange

467-7024

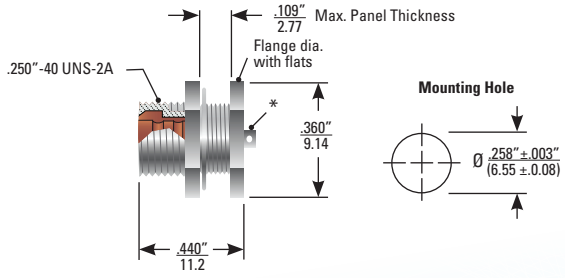
- **Mounting:** Solder Flange

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



Threaded, Non-Sealed, Rear Mount, Panel Connector††

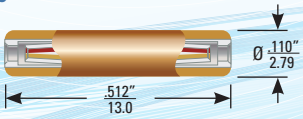
178-8621



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

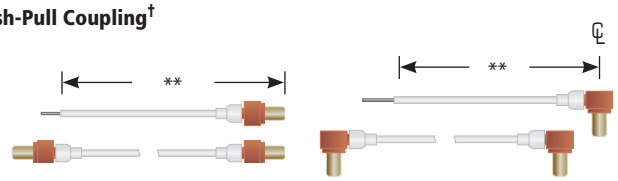
Double-Ended, Plug Adapter†

178-8009

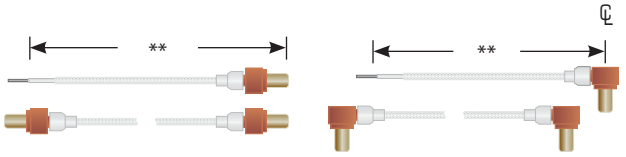


PLUG CABLE ASSEMBLIES

Push-Pull Coupling†

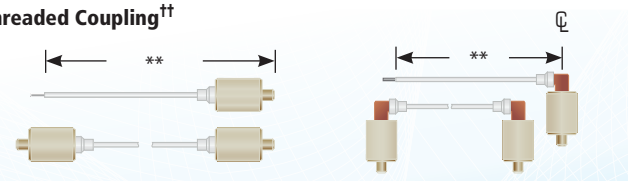


	SINGLE-ENDED	DOUBLE-ENDED	WIRE TYPE	WIRE P/N
STRAIGHT	178-8166	178-8169	Etched FEP	178-8111
STRAIGHT	178-8425	178-8426	Silicone Coated FEP	178-8066
RT. ANGLE	178-8172	178-8160	Etched FEP	178-8111
RT. ANGLE	178-8423	178-8424	Silicone Coated FEP	178-8066



	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.

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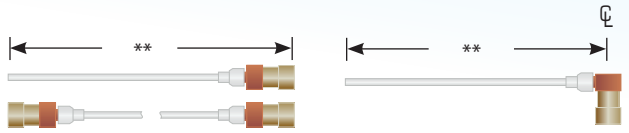
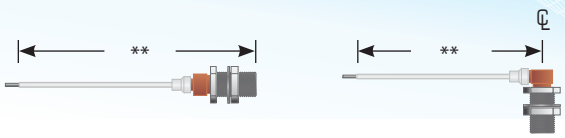
RECEPTACLE CABLE ASSEMBLIES

PUSH-PULL COUPLING†



	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

THREADED COUPLING††



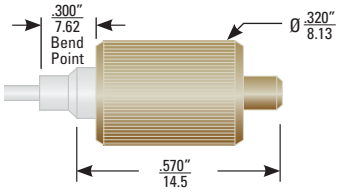
(• = Same value as above)

	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	•	•

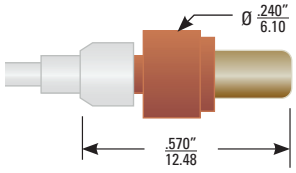
PLUG DIMENSIONS

(Dimensions shown as in/mm)

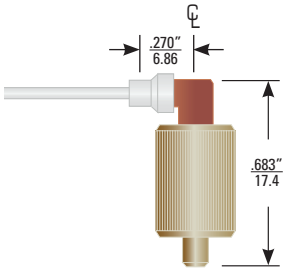
Straight Threaded



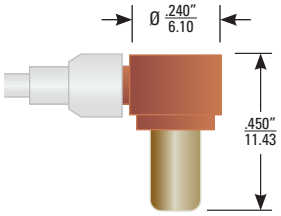
Straight Non-Threaded



Right Angle Threaded

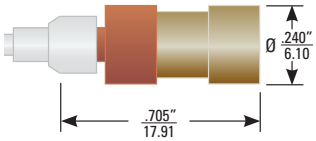


Right Angle Non-Threaded

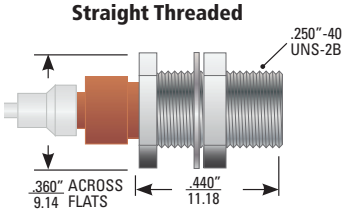


RECEPTACLE DIMENSIONS

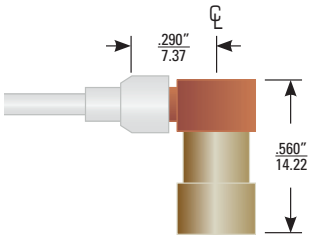
Straight Non-Threaded



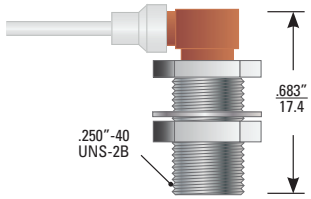
Straight Threaded



Right Angle Non-Threaded



Right Angle Threaded



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	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.
Nomex is a registered trademark of DuPont.

C SERIES

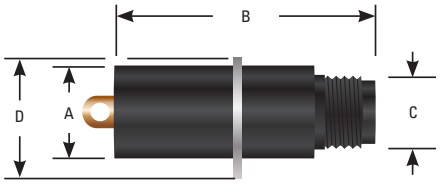
In 1997, Teledyne Reynolds, Inc. acquired the RLA series and other connector product lines from Rowe Industries, Inc. The RLA series has been renamed C series.

C series high voltage lead assemblies and receptacles are widely used in CRT displays, ECM equipment, power supplies, Radar and almost any application where high voltage components need to be interconnected. The plug end is molded onto a desired length of silicone cable and can be ordered single-ended, double-ended or with shielding.

RECEPTACLES

C 730
10 kVDC
LGH 1/2I
2RC1505

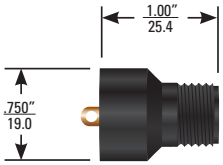
C 737
15 kVDC
LGH 1/2LI
2RC1515



(• = Same value as above)

SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	"C" (in./mm)	"D" DIAMETER (in./mm)
C 730	.380/9.65	.620/15.7	.310/7.9	.570/14.4
C 737	•	1.00/25.4	•	.562/14.3

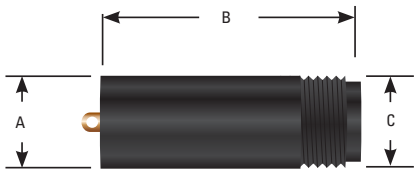
C 720
10 kVDC
LGH LI
RC1525



C 730
10 kVDC
LGH 1/2I
3RC1505

C 737
15 kVDC
LGH 1/2LI
13RC1515

C 720
20 kVDC
LGH LI
3RC1525



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	"C" (in./mm)
C 730	.380/9.6	.630/15.7	.310/7.9
C 737	•	1.00/25.4	•
C 720	.500/12.7	•	.500/12.7

CABLE ASSEMBLIES

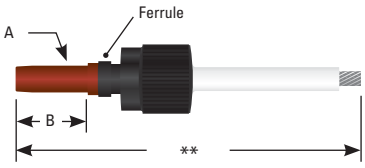
(Dimensions shown as in/mm)

Positive Stop (ferrule)
Single-Ended

C 730 • 10 kVDC
LGH 1/2I
7RC1500

C 737 • 15 kVDC
LGH 1/2LI
7RC1510

C 720 • 20 kVDC
LGH LI
21RC1520

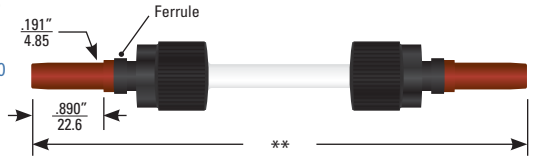


(• = Same value as above)

SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 730	.186/4.7	.530/13.4	178-9863
C 737	.191/4.85	.890/22.6	178-7200
C 720	.287/7.2	•	R790-3516-6

Double-Ended

C 737 • 15 kVDC
LGH 1/2LI
178-7319
• Uses Wire 178-7200



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. 02-061912

CABLE ASSEMBLIES

(Dimensions shown as in/mm)

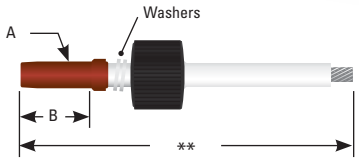
Non-Positive Stop (washers)

Single-Ended

C 730 • 10 kVDC
LGH 1/2I
RC1500

C 737 • 15 kVDC
LGH 1/2LI
RC1510

C 720 • 20 kVDC
LGH LI
RC1520

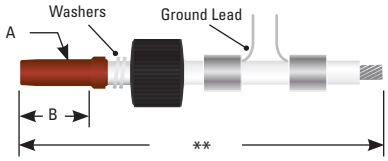


SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 730	.186/4.7	.530/13.4	R790-3516-6
C 737	.191/4.85	.890/22.6	•
C 720	.287/7.2	•	•

Single-Ended, Shielded

C 730 • 10 kVDC
LGH 1/2I
2RC1500

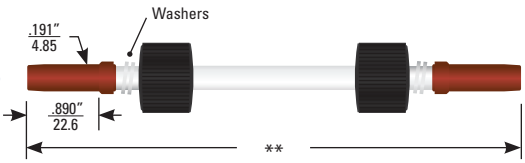
C 720 • 20 kVDC
LGH LI
178-6094



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 730	.186/4.7	.530/13.4	R790-3516-2
C 720	.287/7.2	.880/22.6	•

Double-Ended

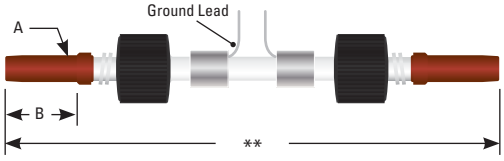
C 720 • 20 kVDC
LGH LI
R1520
• Uses Wire R790-3561-6



Double-Ended, Shielded

C 730 • 10 kVDC
LGH 1/2I
3R1500

C 737 • 15 kVDC
LGH 1/2LI
2RC1510



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 730	.186/4.7	.530/13.4	178-7200
C 737	.191/4.85	.890/22.6	178-6195-9

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
C 730	10	70,000	-55 to 95	10	Plastic	Plastic	Threaded	Plastic	BeCu/Au with CRES hood	Brass/Tin	Non-Shielded	N/A	N/A	15	N/A
C 737	15	•	•	•	•	•	•	•	•	•	•	•	•	18	•
C 720	20	•	•	•	•	•	•	•	•	•	•	•	•	25	•

WIRE SPECIFICATIONS

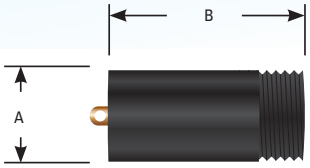
Part #	Operating Voltage (kVDC)	Conductor			Insulation		Shielding			Jacket		Impedance Ω	Attenuation dB/100 ft @ 400mhz	Capacitance pF/FT (Nom.) @1k HZ
		AWG	Strands	Plating	Material	ø in./mm	AWG	Plating	ø in./mm	Material	ø in./mm			
178-7200	20	16	41/32	SPC	Silicone	0.165/4.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178-6195-9	25	•	26/30	TPC	•	0.266/6.76	•	•	•	•	•	•	•	•

RECEPTACLES

C 727
25 kVDC
LGH 1LI
RC1535

C 740
40 kVDC
LGH 3I
RC1545

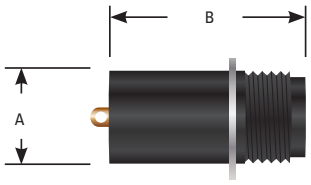
C 750
50 kVDC
LGH 4I
10RC1565



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)
C 727	.750/19.0	1.81/45.9
C 740	.750/19.0	1.94/49.2
C 750	1.00/25.4	2.12/53.8

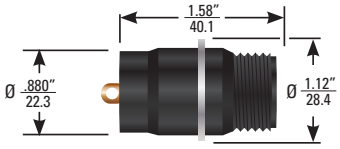
C 740
40 kVDC
LGH 3I
178-6090

C 750
50 kVDC
LGH 4I
2RC1565
• **Mounting:** Solder Flange



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)
C 740	.750/19.00	1.94/49.2
C 750	1.00/25.4	2.12/53.8

C 735
30 kVDC
LGH 2I
2RC1545
• **Mounting:** Solder Flange



NOTES:

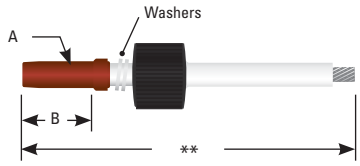
****Cable Assembly Ordering Information:** All cable assembly cable lengths are to be specified in inches only. For example, to order part number 178-6027 with a cable length of 10 feet 8 inches the cable assembly part number would be specified as 178-6027-128N.
• **Note:** Product numbers and specs 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. 02-061912

CABLE ASSEMBLIES

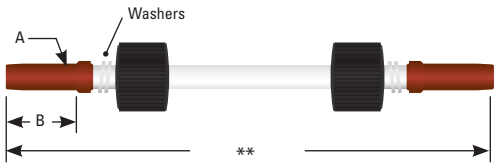
Non-Positive Stop (washers)

C 727 • 25 kVDC
LGH 1LI
RC1530
C 735 • 30 kVDC
LGH 2I
RC1540
C 740 • 40 kVDC
LGH 3I
RC1550
C 750 • 50 kVDC
LGH 4I
RC1560



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 727	.287/7.2	1.69/42.9	178-6147
C 735	•	1.43/36.3	•
C 740	•	1.83/45.7	•
C 750	.435/11.0	2.00/50.8	178-6181

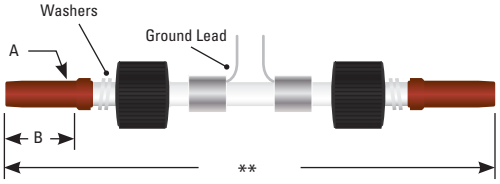
C 727 • 25 kVDC
LGH 1LI
R1530
C 735 • 30 kVDC
LGH 2I
R1540
C 740 • 40 kVDC
LGH 3I
3R1550
C 750 • 50 kVDC
LGH 4I
3R1560



(• = Same value as above)

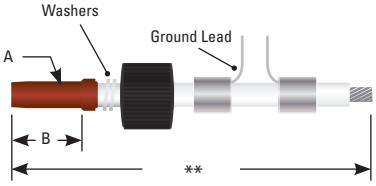
SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 727	.287/7.2	1.69/42.9	178-8147
C 735	•	1.43/36.3	•
C 740	•	1.83/45.7	•
C 750	.435/11.0	2.00/50.8	•

C 727 • 25 kVDC
LGH 1LI
2R1530
C 750 • 50 kVDC
LGH 4I
2R1560



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 727	.287/7.2	1.69/42.9	178-6147
C 750	.435/11.0	2.00/50.8	178-6180

C 727 • 25 kVDC
LGH 1LI
2RC1530
C 750 • 50 kVDC
LGH 4I
2RC1560



SERIES	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
C 727	.287/7.2	1.69/42.9	178-6147
C 750	.435/11.0	2.00/50.8	178-6180

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
C 727	20	70,000	-55 to 95	10	Plastic	Silicone	Threaded	Plastic	BeCu/Au with CRES hood	Brass/Tin	Non-Shielded	N/A	N/A	35	N/A
C 735	30	•	•	•	•	•	•	•	•	•	•	•	•	45	•
C 740	40	•	•	•	•	•	•	•	•	•	•	•	•	50	•
C 750	50	•	•	•	•	•	•	•	•	•	•	•	•	60	•

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			
178-6147	45	16	19/29	SPC	Silicone	0.300/7.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178-6181	60	14	19/27	TPC	•	0.390/9.91	•	•	•	•	•	•	•	•
178-6180	•	*	•	•	•	•	TPC	TPC	0.430/10.9	NOMEX®	0.475/12.07	•	•	•

730/830 SERIES	10 kVDC	70,000 FT	-55° TO 125°C
737 SERIES	15 kVDC		
720 SERIES	20 kVDC		
727 SERIES	25 kVDC		

These high reliability (HI-REL) assemblies, which are intermateable with various LGH™ interfaces, are rated from 10 to 25 kVDC and will operate at altitudes up to 70,000 ft over a temperature range of -55°C to 125°C. In comparison to the C Series, this series has improved temperature range exposure at altitude operation due to incorporation of annular sealing rings on the plug insulator.

HI-REL plugs are offered in kit form when customers find it necessary to fabricate cable assemblies themselves. Customers should use the Teledyne Reynolds' recommended silicone rubber or silicone coated FEP wire part number that is listed for each plug kit. Fluorosilicone rubber insulators are available for applications where Coolanol® or other fluids that cause silicone rubber to swell may exist.

Plastic bodies are used in the HI-REL plug design to captivate the coupling nut and prevent tearing of silicone insulators from overtorque during mating.

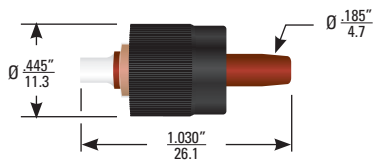
This family of connectors have been widely used for more than 25 years in Military/Aerospace applications. Typical applications are:
• Electronic Countermeasure Systems (ECM) • TWT connections • Lasers • Airborne high voltage power supplies

PLUG KITS

(Dimensions shown as in/mm)

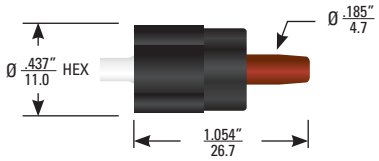
(• = Same value as above)

730 Series
10 kVDC
LGH 1/2I
• Plastic Coupling Nut



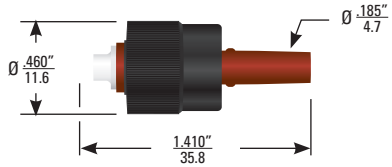
P/N	INSULATOR MATERIAL	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-9151	Silicone	.080/2.03	FEP	167-9543
167-9274	Fluorosilicone	•	•	•
167-9219	Silicone	.150/3.81	Silicone	167-9193

830 Series
10 kVDC
LGH 1/2I
• Metal Coupling Nut



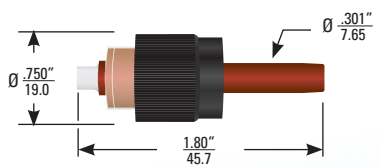
P/N	INSULATOR MATERIAL	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-8810	Silicone	.080/2.03	FEP	167-9543
167-8782	Fluorosilicone	•	•	•
167-8811	Silicone	.150/3.81	Silicone	167-9193

737 Series
15 kVDC
LGH 1/2LI
• Plastic Coupling Nut



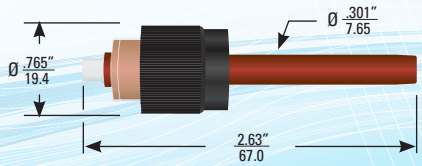
P/N	INSULATOR MATERIAL	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-8816	Silicone	.080/2.03	FEP	167-9543
167-9391	•	.150/3.81	Silicone	167-9193

720 Series
20 kVDC
LGH LI
• Plastic Coupling Nut



P/N	INSULATOR MATERIAL	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
178-6152	Fluorosilicone	.100/2.54	FEP	167-7628
167-6412	Silicone	.110/2.79	Silicone Coated FEP	178-8781
167-9296	•	.150/3.81	FEP	167-9610
167-9163	•	.180/4.57	Silicone	167-9169
167-9149	•	.280/7.11	•	167-9180

727 Series
25 kVDC
LGH 1LI
• Plastic Coupling Nut



P/N	INSULATOR MATERIAL	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-9449	Silicone	.180/4.57	FEP	167-9611
167-9330	•	.280/7.11	Silicone	167-9180

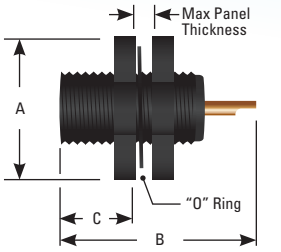
****Cable Assembly Ordering Information:** All cable assembly cable lengths are to be specified in inches only. For example, to order part number 178-6027 with a cable length of 10 feet 8 inches the cable assembly part number would be specified as 178-6027-128N.

• **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. • LGH is a trademark of Tyco Amp, Inc. and Coolanol is a registered trademark of Exxon Mobil Corporation. **WARNING:** Connectors should **NEVER** be handled mated or unmated when voltage is applied.

Rev. 02-061912

RECEPTACLES

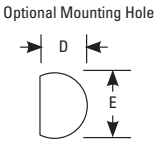
Sealed, Front Panel Mount



730/830 • 10 kVDC
LGH 1/2I
167-9158 - Silicone Seals
167-9275 - Fluorosilicone Seals

Max. Leak Rate: 1x10^{-6} cc/s He @1ATM differential pressure
- **Panel Mounting Torque:** 5 to 6 in-lbs

720 • 20 kVDC
LGH LI
167-9157 - Silicone Seals
167-9263 - Fluorosilicone Seals



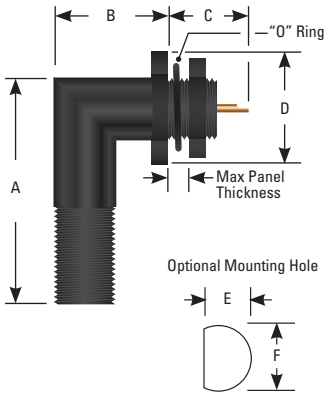
- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-6} cc/s He @1 ATM differential pressure
- **Panel Mounting Torque:** 23 to 28 in-lbs
- **Mounting:** See optional "D" hole

SERIES	"A" (in./mm)	"B" (in./mm)	"C" (in./mm)	MAX PANEL THICKNESS
730/830	.625/15.88	.850/21.59	.375/9.53	.188/4.78
720	.960/24.38	1.195/30.35	.575/14.61	.250/6.35

Optional Mounting Hole

SERIES	"D" (in./mm)	"E" (in./mm)
730/830	.295/7.49	.323/8.20
720	.480/12.19	.508/12.90

Right Angle, Sealed, Front Panel Mount



730/830 • 10 kVDC
LGH 1/2I
167-9228 - Silicone Seals
167-9294 - Fluorosilicone Seals

- **Panel Mounting Torque:** 5 to 6 in-lbs

720 • 20 kVDC
LGH LI
167-9227 - Silicone Seals
167-9293 - Fluorosilicone Seals

- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-6} cc/s He @1 ATM differential pressure
- **Panel Mounting Torque:** 23 to 28 in-lbs
- **Mounting:** See optional "D" hole

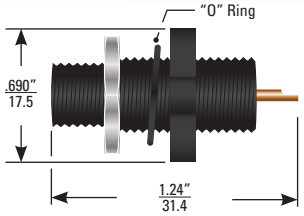
SERIES	"A" (in./mm)	"B" (in./mm)	"C" (in./mm)	"D" (in./mm)	MAX PANEL THICKNESS
730/830	.846/21.5	.475/12.1	.490/12.5	Ø.625/15.9	.188/4.78
720	1.360/34.5	.630/17.4	.635/16.1	Ø.960/24.4	.250/6.35

Optional Mounting Hole

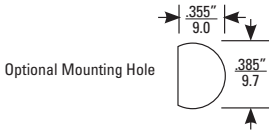
SERIES	"E" (in./mm)	"F" (in./mm)
730/830	.295/7.49	.323/8.20
720	.480/12.19	.508/12.90

Sealed, Front or Rear Panel Mount

737 • 15 kVDC
LGH 1/2 LI
167-8721

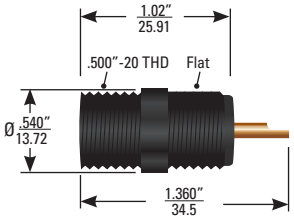


- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-6} cc/s He @1ATM differential pressure
- **Panel Mounting Torque:** 5 to 6 in-lbs
- **Mounting:** See optional "D" hole

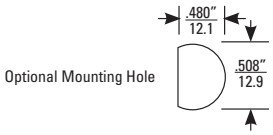


In-Line, Non-Sealed

720 • 20 kVDC
LGH LI
167-8603 - Silicone Seal

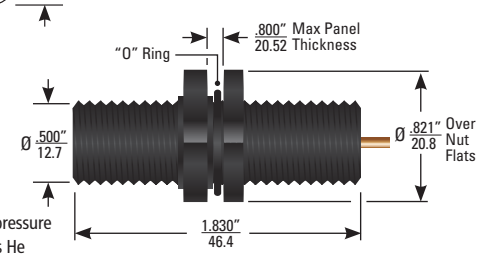


- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-6} cc/s He @1ATM differential pressure
- **Mounting:** See optional "D" hole

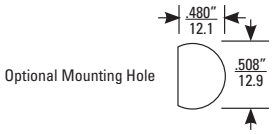


Sealed, Front Mount

727 • 25 kVDC
LGH 1LI
167-9336 - Silicone Seal
167-9337 - Fluoroilicone Seal

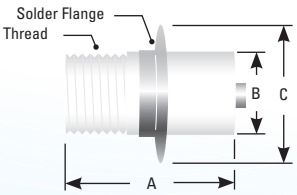


- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-6} cc/s He @1ATM differential pressure
- **Mounting:** See optional "D" hole



Ceramic-to-Metal, Brazed, Hermetic Connector

730/830 • 10 kVDC
LGH 1/2I
167-8626



720 • 20 kVDC
LGH LI
167-9803

- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-8} cc/s He @1 ATM differential pressure
- **Flange material:** Iron nickel alloy with nickel plating
- **Mounting:** Solder flange

SERIES	THREAD	"A" (in./mm)	"B" (in./mm)	"C" (in./mm)
730/830	312"-32 UNEF-2A	.655/16.6	Ø.310/7.87	Ø.500/12.7
720	.500"-20 UNF-1A	1.025/26.0	Ø.498/12.65	Ø.812/20.6

730/830 SERIES	10 kVDC	70,000 FT	-55° TO 125°C
737 SERIES	15 kVDC		
720 SERIES	20 kVDC		
727 SERIES	25 kVDC		

CABLE ASSEMBLIES

730
LGH 1/2I

Single-Ended

Double-Ended

(• = Same value as above)

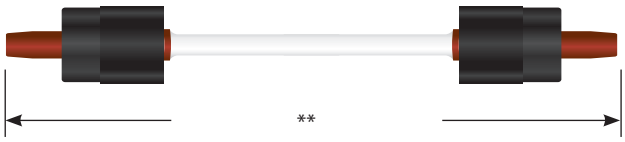
SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-9876	167-9872	.080/2.03	FEP	167-9543
167-9879*	167-9875*	.150/38.1	Silicone	167-9193
167-9213	167-9210	•	•	•

*Using fluorosilicone rubber insulators.

830
LGH 1/2I

Single-Ended

Double-Ended



SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-8812	167-8813	.080/2.03	FEP	167-9543
167-8854*	167-8855*	.150/38.1	Silicone	167-9193
167-8814	167-8815	•	•	•

*Using fluorosilicone rubber insulators.

737
LGH 1/2LI

Single-Ended

Double-Ended

SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-8818	167-8817	.080/2.03	FEP	167-9543
167-9917	167-9916	.150/38.1	SIlicone	167-9193

****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.

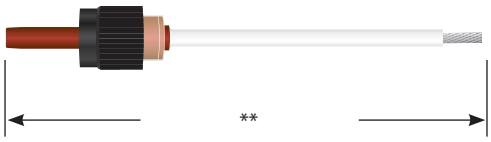
Rev. 02-061912

CABLE ASSEMBLIES

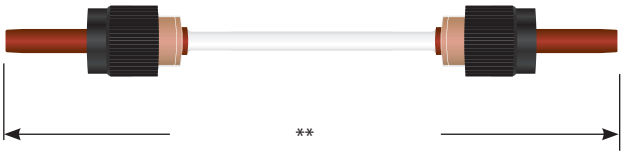
720

LGH LI

Single-Ended



Double-Ended



(• = Same value as above)

SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-6154*	178-6153*	.100/2.54	FEP	167-7628
178-6144	178-6143	.110/2.79	Silicone Coated FEP	178-8781
167-9957	167-8798	.150/38.1	FEP	167-9610
167-9164	167-9201	.180/4.57	Silicone	167-9169
167-9150	167-9203	.280/7.11	•	167-9180

*Using fluorosilicone rubber insulators.

727

LGH 1LI

Single-Ended

Double-Ended

SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE TYPE	WIRE P/N
167-8805	167-8804	.180/4.57	FEP	167-9611
167-9332	167-9333	.280/7.11	SIlicone	167-9180

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
730	10	70,000	-55 to 125	4 or 6	Plastic or Ceramic	Silicone or Fluorosilicone	Threaded	Plastic	BeCu/Au with CRES hood	Brass/Au	Non-Shielded	FEP or Silicone	N/A	15	N/A
830	•	•	•	•	Plastic	•	•	Al/Anodized	•	•	•	•	•	•	•
737	15	•	•	•	Plastic or Ceramic	•	•	Plastic	•	•	•	•	•	18	•
720	20	•	•	10, 4 or 6	Plastic	•	•	•	•	•	•	•	•	25	•
727	25	•	•	10 or 2.5	•	•	•	•	•	•	•	•	•	35	•

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			
167-9193	17	18	19/30	SPC	Silicone	0.150/3.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
167-9169	20	16	19/29	•	•	0.180/4.57	•	•	•	•	•	•	•	•
167-9180	•	•	19/30	•	•	0.280/7.11	•	•	•	•	•	•	•	•
167-9543	22	20	19/32	TPC	FEP	0.080/2.03	•	•	•	•	•	•	•	•
167-8781	30	•	•	SPC	Silicone Coated FEP	0.110/2.79	•	•	•	•	•	•	•	•
167-9611	•	16	19/29	•	FEP	0.180/4.57	•	•	•	•	•	•	•	•
167-7628	•	20	19/32	•	•	0.100/2.54	•	•	•	•	•	•	•	•
167-9610	37	•	•	TPC	•	0.150/3.81	•	•	•	•	•	•	•	•

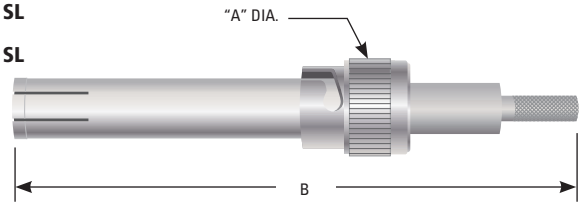
531 SL SERIES	10 kVDC	SEA LEVEL	-40° TO 85°C
531 SERIES	15 kVDC	70,000 FT	
521 SL SERIES	20 kVDC	SEA LEVEL	
521 SERIES	25 kVDC	70,000 FT	

A series of shielded high voltage connectors, kits and cable assemblies designed to minimize the risk of electrical shock to personnel through the use of recessed contacts. Both the panel and cable connectors have recessed contacts and will stand off the rated voltage in the unmated condition.
Note: Voltage ratings apply in the mated condition only. Unmated 521 rated voltage is 20 kVDC and 531 is 10 kVDC.

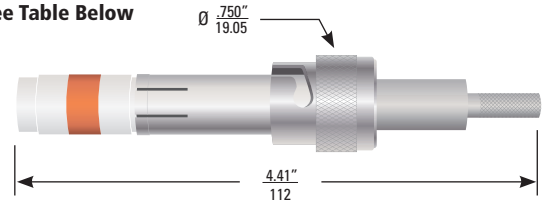
PLUG KITS

(Dimensions shown as in/mm)

531 SL
531
521 SL



521: See Table Below



SERIES	P/N	"A" DIAMETER (in./mm)	"B" (in./mm)	WIRE P/N
531 SL	167-3554	.625/15.9	2.72/69	167-2669
531	167-4535	•	•	•
521 SL	167-3516	.750/19.05	4.41/112	RG213/U
521	167-3516-1	•	•	RG214/U

521 P/N	WIRE P/N
167-4534	RG213/U
167-4534-1	RG214/U
167-4534-C	167-2669

RECEPTACLES

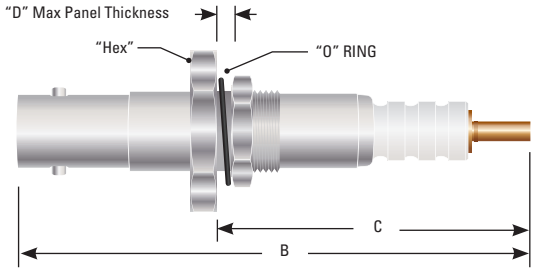
(• = Same value as above)

Sealed, Front Mount Panel Connector

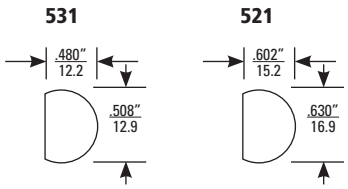
531: 167-3555
- **Mounting:** Allow clearance for 1/2-28 UNEF thread
- **Panel Mounting Torque:** 42 to 48 in-lbs

521: 167-3517
- **Mounting:** Allow clearance for 5/8-24 UNEF thread
- **Panel Mounting Torque:** 90 to 95 in-lbs

- **Pressure:** Sealed for 1 ATM differential pressure
- **Max Leakage:** 1x10^{-6} cc/s He @ 1 ATM differential



OPTIONAL MOUNTING HOLES



SERIES	P/N	"HEX" (in./mm)	"B" (in./mm)	"C" (in./mm)	"D" (in./mm)
531	167-3555	.750/19.05	2.70/68.58	1.62/41.15	.312/7.92
521	167-3517	.930/23.62	3.94/100.08	2.56/65.02	.250/6.35

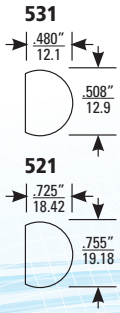
Sealed, Rear Mount, Cabled Connector

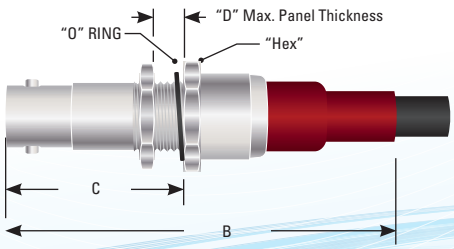
531: 167-9096 Uses Wire 167-2669
- **Mounting:** Allow clearance for 1/2"-28 UNEF thread
- **Panel Mounting Torque:** 42 to 48 in-lbs

521: 167-9100 Uses Wire RG213/U
- **Mounting:** Allow clearance for 5/8"-24 UNEF thread
- **Panel Mounting Torque:** 90 to 95 in-lbs

- **Pressure:** Sealed for 1 ATM differential pressure
- **Max Leakage:** 1x10^{-6} cc/s He @ 1 ATM differential

OPTIONAL MOUNTING HOLES





SERIES	P/N	"HEX" (in./mm)	"B" (in./mm)	"C" (in./mm)	"D" (in./mm)
531	167-9096	.750/19.05	2.875/73.02	1.270/32.26	.312/7.92
521	167-9100	1.06/27.0	4.00/101.6	2.08/52.83	.437/11.10

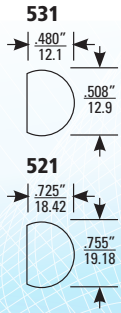
Sealed Double-Ended, Panel Connector

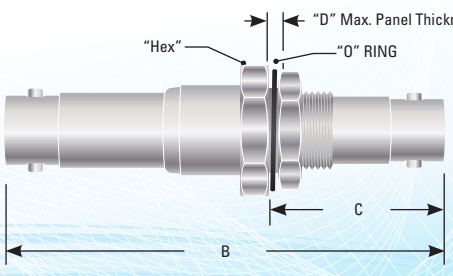
531: 167-3705
- **Mounting:** Allow clearance for 1/2"-28 UNEF thread
- **Panel Mounting Torque:** 42 to 48 in-lbs

521: 167-3704
- **Mounting:** Allow clearance for 5/8"-24 UNEF thread
- **Panel Mounting Torque:** 90 to 95 in-lbs

- **Pressure:** Sealed for 1 ATM differential pressure
- **Max Leakage:** 1x10^{-6} cc/s He @ 1 ATM differential

OPTIONAL MOUNTING HOLES





SERIES	P/N	"HEX" (in./mm)	"B" (in./mm)	"C" (in./mm)	"D" (in./mm)
531	167-3705	.750/19.05	3.13/79.50	1.270/32.26	.312/7.92
521	167-3704	1.06/27.0	4.75/120.65	2.08/52.83	.437/11.10

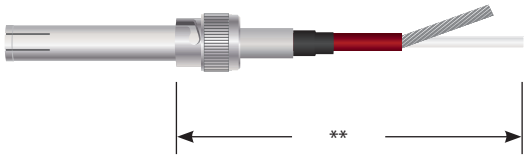
****Cable Assembly Ordering Information:** All cable assembly cable lengths are to be specified in inches only. For example, to order part number 178-6027 with a cable length of 10 feet 8 inches the cable assembly part number would be specified as 178-6027-128N.
• **Note:** Product numbers and specs 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. 02-061912

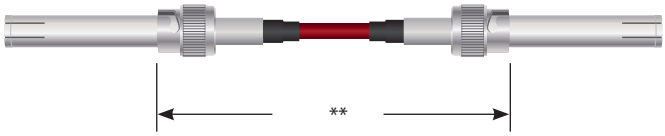
531 SL SERIES	10 kVDC	SEA LEVEL	-40° TO 85°C
531 SERIES	15 kVDC	70,000 FT	
521 SL SERIES	20 kVDC	SEA LEVEL	
521 SERIES	25 kVDC	70,000 FT	

531 SL AND 531 CABLE ASSEMBLIES

Single-Ended, Shielded, Pigtail
531 SL: 167-4451
531: 167-9003
• Uses Wire **167-2669**

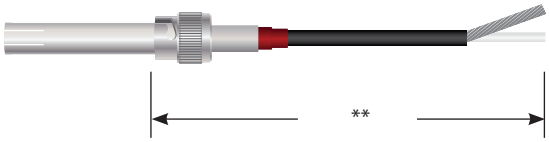


Double-Ended, Shielded
531 SL: 167-3648
531: 167-4561
• Uses Wire **167-2669**

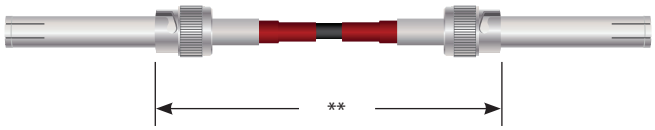


521 SL CABLE ASSEMBLIES

Single-Ended, Shielded, Pigtail
167-4450-1
• Uses Wire **RG213/U**



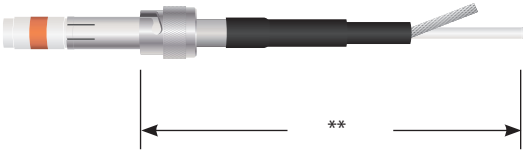
Double-Ended, Shielded
167-3638-1
• Uses Wire **RG213/U**



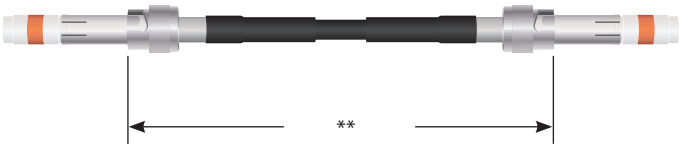
SINGLE-ENDED	DOUBLE-ENDED	WIRE P/N
167-4450-4	167-3638-4	RG214/U

521 CABLE ASSEMBLIES

Single-Ended, Shielded, Pigtail
167-4596-1
• Uses Wire **RG213/U**



Double-Ended, Shielded
167-4569-1
• Uses Wire **RG213/U**



SINGLE-ENDED	DOUBLE-ENDED	WIRE P/N
167-4596-4	167-4569-4	RG214/U
178-6404*	178-9879*	167-2669

*Not shown

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
531 SL	10	Sea Level	-40 to 85	10	Plastic	Plastic	Bayonet	Brass/Ni	BeCu/Au	Brass/Au	Shielded	PE	Crimp	N/A	13
531	15	70,000	•	•	•	•	•	•	•	•	•	•	•	31	N/A
521 SL	20	Sea Level	•	20	•	•	•	•	•	•	•	•	•	N/A	28
521	25	70,000	•	•	•	•	•	•	•	•	•	•	•	41	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			
167-2669	20	16	19/29	TPC	Silicone	.118/3.00	36	TPC	.150/3.81	PE	.195/4.95	31	16	48

LOW CORONA DISCHARGE CONNECTORS

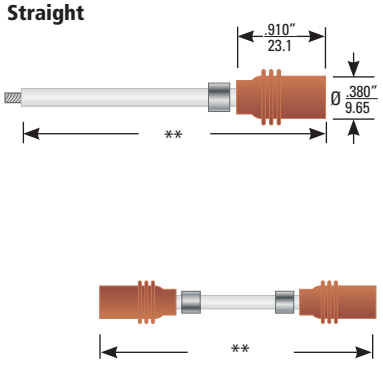
This series of push-on/pull-off Silicone In-line Disconnect (SID) connectors provides a reliable 15 kVDC high voltage connection for use in military and aerospace applications.

A unique interface sealing system allows these connectors to perform well under vibration, shock, altitude and temperature extremes. Mated SID assemblies also have excellent corona characteristics.

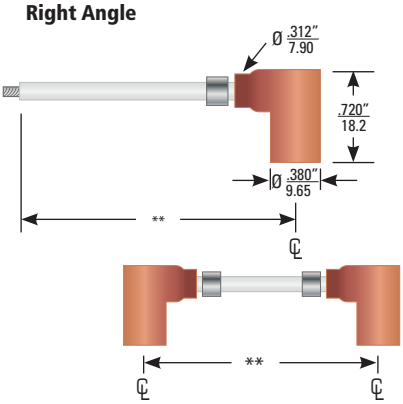
PLUG CABLE ASSEMBLIES

(Dimensions shown as in/mm)

Straight

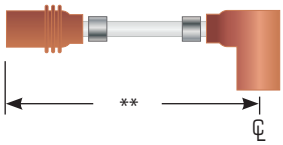


Right Angle



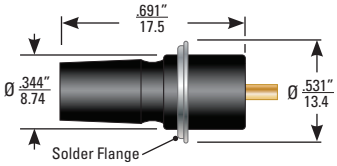
	SINGLE-ENDED	DOUBLE-ENDED	WIRE DIA. (in./mm)	WIRE P/N
STRAIGHT	178-6076	178-6078	.165/4.19	178-6179
STRAIGHT	178-6075	178-6077	.180/4.50	178-6187
RT. ANGLE	178-6080	178-6082	.165/4.19	178-6179
RT. ANGLE	178-6079	178-6081	.180/4.50	178-6187
HYBRID	N/A	178-6084	.165/4.19	178-6179
HYBRID	N/A	178-6083	.180/4.50	178-6187

Hybrid



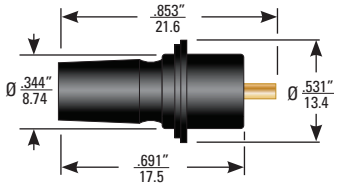
RECEPTACLES

Sealed, Front Mount, Solder Flanged
26RC1031



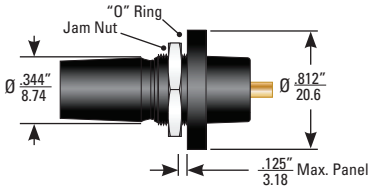
- **Mounting:** Solder flange
- Sealed for 1 ATM differential pressure
- **Max Leak Rate:** 1 x 10^{-6} cc/s He @ 1ATM differential pressure

Non-Sealed, Front Mount, Plastic Flanged
29RC1031



- **Mounting:** Designed for encapsulation or bonding

Sealed, Rear-Mount Flanged Jam Nut
60RC1031

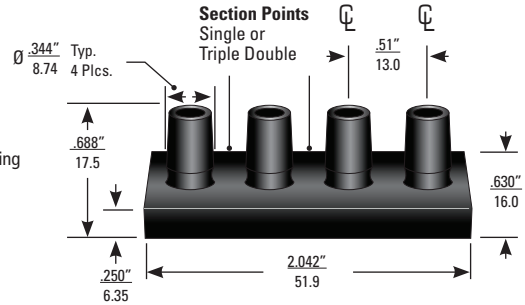


- **Mounting:** Jam nut flange
- Sealed for 1 ATM differential pressure
- **Max Leak Rate:** 1 x 10^{-6} cc/s He @ 1ATM differential pressure

Non-Sealed, 4-Pin, Receptacle Block
34RC1031

- **Mounting:** Designed for encapsulation or bonding

Note: Block can be precision cut by customer to convert to single, double or triple pin connector



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
SID	15	70,000	-55 to 95	5	Plastic	Silicone	Push-Pull	N/A	BeCu/Au with CRES Hood	Brass/Au	Non-Shielded	Silicone	N/A	20	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			
178-6179	25	20	19/32	SPC	Silicone	0.165/4.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178-6187	30	•	•	•	•	0.180/4.57	•	•	•	•	•	•	•	•

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. 02-061912

HVID SERIES

17 kVDC
45 kVDC
60 kVDC

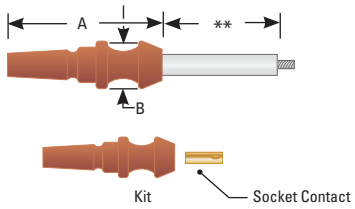
SEA LEVEL

-40° TO 85°C

These High Voltage In-line Disconnects (HVID) use push-on, pull-off friction mating of the two silicone rubber halves with a tapered interface to achieve corona resistant high voltage performance.

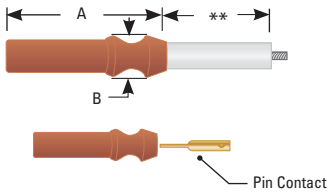
The HVIDs are available as single-ended, pre-tested assemblies or as kits containing an insulator and a contact if field installation is required. Assembly of these kits requires the use of RTV silicone adhesive.

PLUG CABLE ASSEMBLIES AND KITS



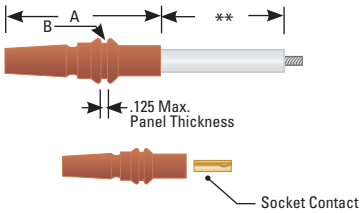
VOLTAGE RATING (kVDC)	P/N	"A" LENGTH (in./mm)	"B" DIA. (in./mm)	CONDUCTOR AWG	WIRE DIA. (in./mm)	KIT P/N	WIRE P/N
17	2R1031	1.80/46.99	.625/15.88	18	.160/4.06	2R1031-KIT	178-6146
45	2R1033	2.31/58.67	.766/19.46	16	.300/7.62	2R1033-KIT	178-6147
60	5R1033	2.75/69.85	.923/23.44	14	.385/9.78	5R1033-KIT	178-6181

RECEPTACLE CABLE ASSEMBLIES AND KITS



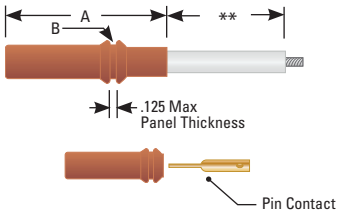
VOLTAGE RATING (kVDC)	P/N	"A" LENGTH (in./mm)	"B" DIA. (in./mm)	CONDUCTOR AWG	WIRE DIA. (in./mm)	KIT P/N	WIRE P/N
17	2R1030	2.60/53.09	.625/15.88	18	.160/4.06	2R1030-KIT	167-6146
45	2R1032	2.36/59.94	.763/19.46	16	.300/7.62	2R1032-KIT	167-6147
60	5R1032	3.00/76.20	.910/23.11	14	.385/9.78	4R1032-KIT	178-6181

PLUG, PANEL MOUNT, CABLE ASSEMBLIES AND KITS



VOLTAGE RATING (kVDC)	P/N	"A" LENGTH (in./mm)	"B" DIA. (in./mm)	CONDUCTOR AWG	WIRE DIA. (in./mm)	KIT P/N	WIRE P/N
17	R1031	1.53/38.86	.438/11.13	18	.160/4.06	R1031-KIT	167-6146
45	R1033	2.00/50.80	.594/15.09	16	.300/7.62	R1033-KIT	167-6147
60	6R1033	2.75/69.85	.680/17.27	14	.385/9.78	6R1033-KIT	178-6181

RECEPTACLE, PANEL MOUNT, CABLE ASSEMBLIES AND KITS



VOLTAGE RATING (kVDC)	P/N	"A" LENGTH (in./mm)	"B" DIA. (in./mm)	CONDUCTOR AWG	WIRE DIA. (in./mm)	KIT P/N	WIRE P/N
17	R1030	1.53/38.86	.438/11.13	18	.160/4.06	R1030-KIT	167-6146
45	R1032	2.00/50.8	.531/13.49	16	.300/7.62	R1032-KIT	167-6147
60	5R1032	3.00/76.20	.688/17.48	14	.385/9.78	5R1032-KIT	178-6181

- **Mounting:** Grommet • **Assembly Instructions:** Visit www.teledynereynolds.com
- **Kits:** Kits containing a molded housing (insulator) and one contact are available for field installation. Wire not included but may be purchased from Teledyne Reynolds. A suitable RTV silicone adhesive is required for assembly.

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
HVID	17/45/60	Sea Level	-40 to 85	6/10/15	Silicone	Silicone	Push-Pull	N/A	BeCu/Au with CRES Hood	Brass/Au	Non-Shielded	Silicone	N/A	25/60/70	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			
178-6146	30	18	19/30	SPC	Silicone	0.160/4.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
178-6147	45	16	19/29	•	•	0.300/7.62	•	•	•	•	•	•	•	•
178-6181	60	14	19/27	TPC	•	0.390/9.91	•	•	•	•	•	•	•	•

CENTURY SERIES

Century series products employ a slightly larger interface seal than the PeeWee series and are rated at 15 kVDC. While the catalog products are single pin, this series has been widely used in special, multi-pin applications for laser gyroscopes, laser range finders and TWT interconnections in ECM and radar high voltage power supplies.

CENTURY+ SERIES

Century+ series contains a larger interface seal than the Century series and is rated at 18 kVDC. Century+ provides both plastic and high alumina ceramic receptacles. Cable assemblies use Ready-to-Bond FEP cable.

RECEPTACLES

(Dimensions shown as in/mm)

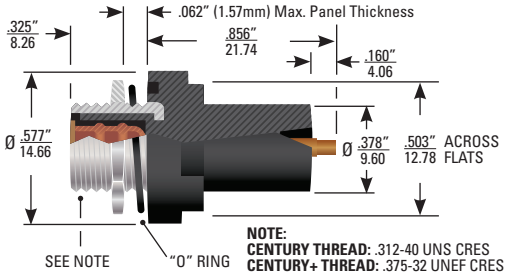
Sealed, Threaded, Rear Mount

CENTURY: 178-9471

- **Mating Torque:** 4.5 to 5.5 in-lbs
- **Panel Mounting Torque:** 8 to 10 in-lbs

CENTURY+: 178-9472

- **Mating Torque:** 5 to 6 in-lbs
- **Panel Mounting Torque:** 8 to 10 in-lbs

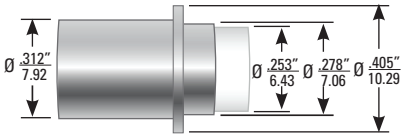


- **Max. Leak Rate:** $1x10^{-6}$ cc/s He @1 ATM differential pressure

Ceramic-to-Metal Brazed, Hermetic

Non-Threaded

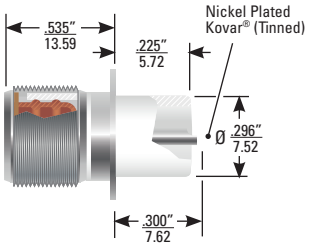
CENTURY: 467-7052



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

Threaded

CENTURY+: 467-7050

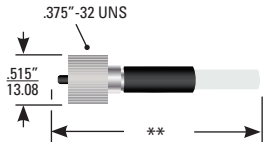


CABLE ASSEMBLIES

Non-Shielded, Threaded Plug

Single-Ended

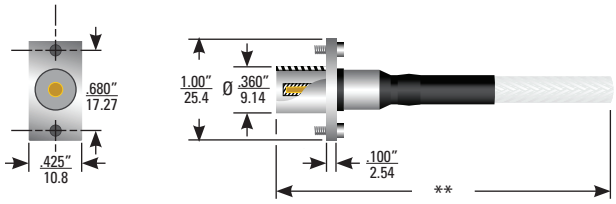
CENTURY+: 178-9480 Uses Wire 178-8781



Shielded, Non-Threaded Plug

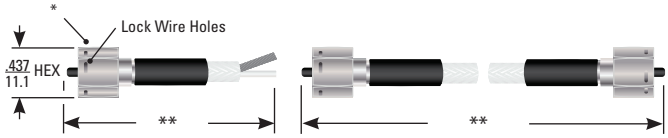
Single-Ended

CENTURY: 178-9357 Uses Wire 167-8726



Shielded, Threaded Plug

Single-Ended, Pigtailed **Double-Ended**

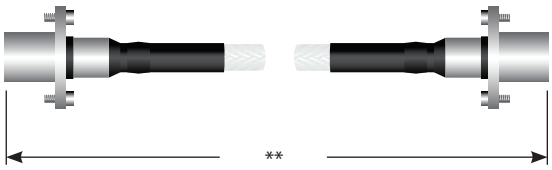


SERIES	SINGLE-ENDED	DOUBLE-ENDED	WIRE P/N
CENTURY	178-9477	178-9478	167-8726
CENTURY+	178-9482	178-9483	•

***CENTURY:** .312"-40 UNEF-2B THREAD, **CENTURY+:** .375"-32 UNS-2B THREAD

Double-Ended

CENTURY: 178-9497 Uses Wire 167-8726



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
CENTURY	15	70,000	-55 to 125	5	Plastic or Ceramic	Plastic	Threaded or Push-Pull	CRES	BeCu/Au with CRES Hood	Brass/Au	Shielded	FEP	Band	21	N/A
CENTURY+	18	•	•	•	•	•	Threaded	•	•	•	Shielded or Non-Shielded	FEP or Silicone	•	25	•

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			
167-8726	25	22	19/34	SPC	FEP	0.100/2.54	36	SPC	0.120/3.05	FEP	0.145/3.68	50	N/A	29.3
178-8781	60	14	19/27	TPC	Silicone	0.165/4.19	N/A	N/A	N/A	N/A	N/A	N/A	•	N/A

****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. 02-061912

MAXXUM SERIES | 25 kVDC | 70,000 FT | -55° TO 125°C

Maxxum series connectors are robust in their construction, using stainless steel for the threaded coupling nut and body. This series is ideally suited for use as a high power, TWT collector interconnect or in E-beam inspection equipment where a low partial discharge design and hermetic feedthrough are required.

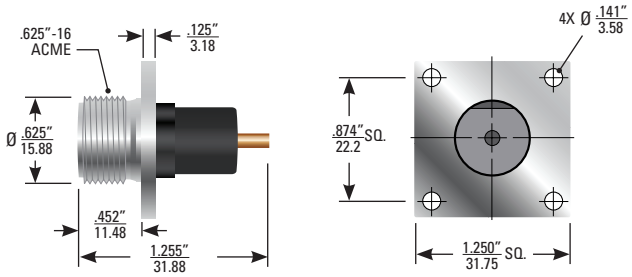
The cable assemblies use FEP cable with a double braid crimped directly to the stainless steel body of the connector.

RECEPTACLES

(Dimensions shown as in/mm)

Plastic, Flange Mounted, Non-Sealed

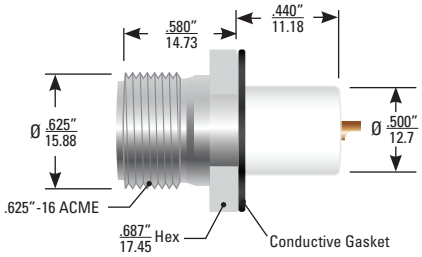
167-7708



- **Mounting:** Requires clearance for .500"-20 UNF thread

Ceramic-to-Metal Brazed, Hermetic

178-9740



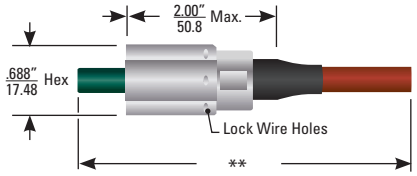
- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10^{-8} cc/s He @1 ATM differential pressure
- **Mounting:** Solder Flange

CABLE ASSEMBLIES

Single-Ended, Shielded

178-9433

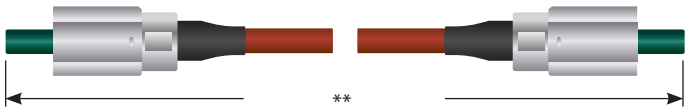
- Uses Wire 167-8556



Double-Ended, Shielded

178-9434

- Uses Wire 167-8556



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
MAXXUM	25	70,000	-55 to 125	5	Plastic or Ceramic	Plastic	Threaded	CRES	BeCu/Au with CRES Hood	Brass/Au	Shielded	FEP	Solder	33	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			
167-8556	40	•	•	•	•	•	36	SPC	0.120/3.05	FEP	0.145/3.68	50	N/A	29.3

****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.

401 SERIES | 40 kVDC | 70,000 FT | -55° TO 125°C

These high reliability (HI-REL) connectors are shielded with spring grounding fingers on the plug.

Series 401 connectors are used in:

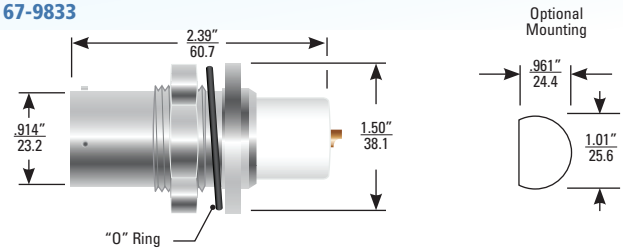
• Airborne and ground RADAR • E-beam and X-ray inspection equipment

RECEPTACLE

(Dimensions shown as in/mm)

Sealed, Rear Mount

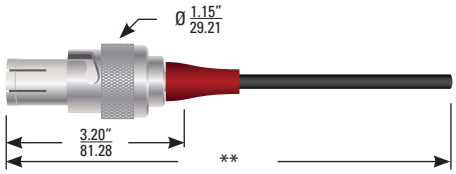
167-9833



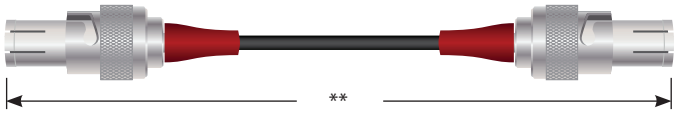
- Sealed for 1 ATM differential pressure.
- **Max. Leak Rate:** 1x10^{-6} cc/s He @ 1 ATM differential pressure
- **Mounting:** Requires 1.010" (25.65 mm) diameter hole or optional "D" hole (shown)
- **Panel Mounting Torque:** 98 to 106 in-lbs

CABLE ASSEMBLIES

Single-Ended, Shielded



Double-Ended, Shielded



SHIELDED

SINGLE-ENDED	DOUBLE-ENDED	WIRE P/N
167-8794	167-8793	167-9785

NON-SHIELDED (Not shown)

SINGLE-ENDED	DOUBLE-ENDED	WIRE P/N
167-8796	167-8795	167-9610

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
401	40	70,000	-55 to 125	4	Plastic	Plastic	Bayonet	Al/Ni	BeCu/Au with CRES Hood	Brass/Au	Shielded or Non-Shielded	FEP	Crimp	50	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			
167-9610	37	20	19/32	SPC	FEP	0.150/3.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
167-9785	40	•	•	TPC	•	•	36	TPC	0.180/4.57	FEP	0.230/5.84	50	12.2	26

****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.

TELEDYNE REYNOLDS
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