

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.

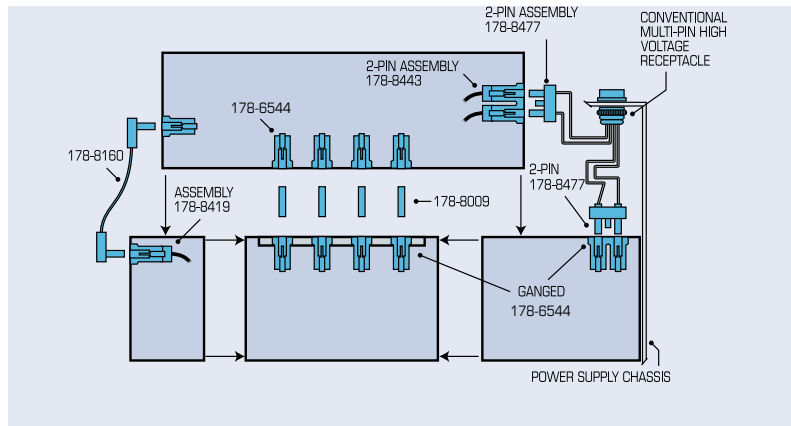
Information on the Space Qualified (SQ) PeeWee SQ series can be found in Teledyne Reynolds' Space Qualified Products catalog.

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 a modularized power supply utilizing PeeWee connectors and cable assemblies.

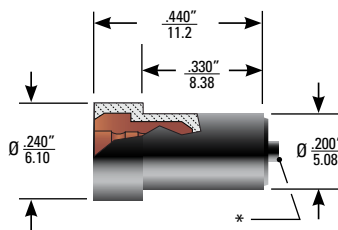


RECEPTACLES

(Dimensions shown as in/mm)

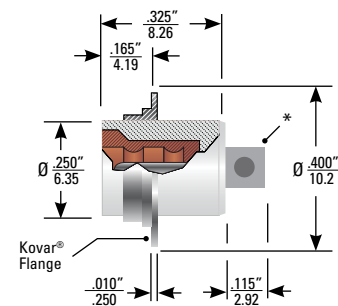
Non-Sealed, Front Mount†
178-6544 (Replaces 178-7937)

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



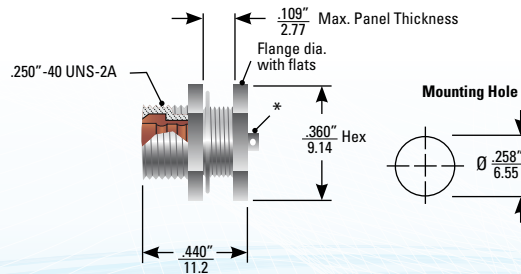
Ceramic-to-Metal, Brazed, Hermetic†
467-7022

- **Mounting:** Weld Flange
- 467-7024**
- **Mounting:** Solder Flange
- Sealed for 1 ATM differential pressure
- **Max. Leak Rate:** 1x10⁻⁸ cc/s He @1 ATM differential pressure



Threaded, Non-Sealed, Rear Mount††
178-8621

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

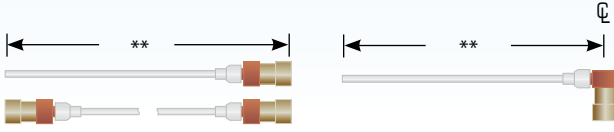


† Mates with all push-pull coupling, single-pin, PeeWee series plug or receptacle assemblies.
†† Mates with all threaded coupling, single-pin, PeeWee series plug or receptacle assemblies.

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

RECEPTACLE CABLE ASSEMBLIES

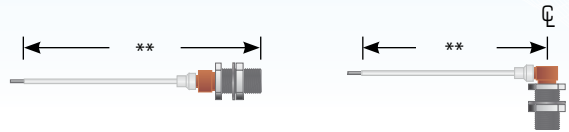
Push-Pull Coupling†



	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

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

Threaded Coupling††

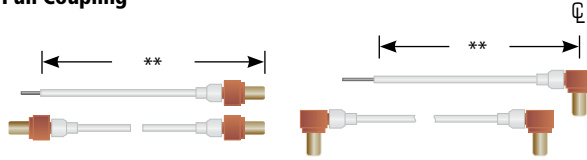


(• = Same value as above)

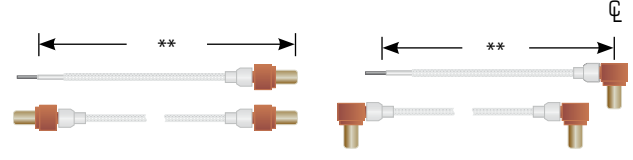
	SINGLE-ENDED	DOUBLE-ENDED	WIRE TYPE	WIRE P/N
STRAIGHT	178-9499		Etched FEP	178-8111
STRAIGHT	178-9500		Silicone Coated FEP	178-8066
STRAIGHT	178-9502		Silicone Coated FEP, NOMEX® Jacket	178-5789
RT. ANGLE	178-9510	•		•

PLUG CABLE ASSEMBLIES

Push-Pull Coupling†

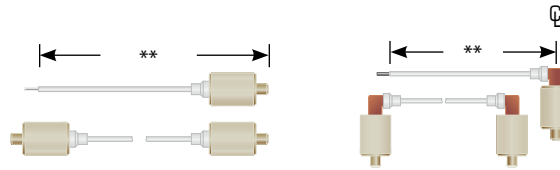


	SINGLE-ENDED	DOUBLE-ENDED	WIRE TYPE	WIRE P/N
STRAIGHT	178-8166	178-8169	Etched FEP	178-8111
STRAIGHT	178-8425	178-8426	Silicone Coated FEP	178-8066
RT. ANGLE	178-8172	178-8160	Etched FEP	178-8111
RT. ANGLE	178-8423	178-8424	Silicone Coated FEP	178-8066



	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 push-pull coupling, single-pin, PeeWee series plug or receptacle assemblies.
 †† Mates with all threaded coupling, single-pin, PeeWee series plug or receptacle assemblies.
 Note: Exposed cable insulation on NOMEX® covered single-ended cable assemblies will be 1/2 inch less the cable length, unless otherwise specified.

PLUG AND RECEPTACLE DIMENSIONS CAN BE FOUND ON THE NEXT PAGE.

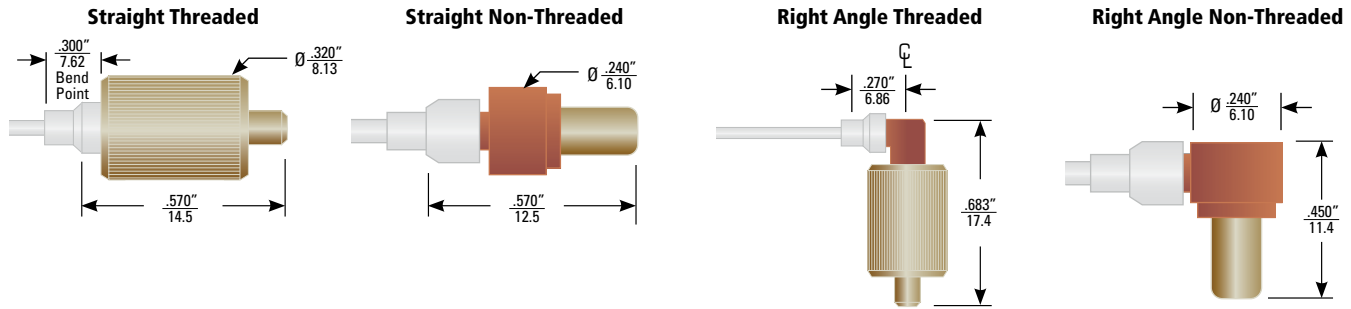
****Cable Assembly Ordering Information:** All cable assembly cable lengths are to be specified in inches only. For example, to order part number 178-6027 with a cable length of 10 feet 8 inches the cable assembly part number would be specified as 178-6027-128N.

- **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.
- Nomex® is a registered trademark of DuPont. Kovar® is a registered trademark of the Carpenter Technology Corporation.

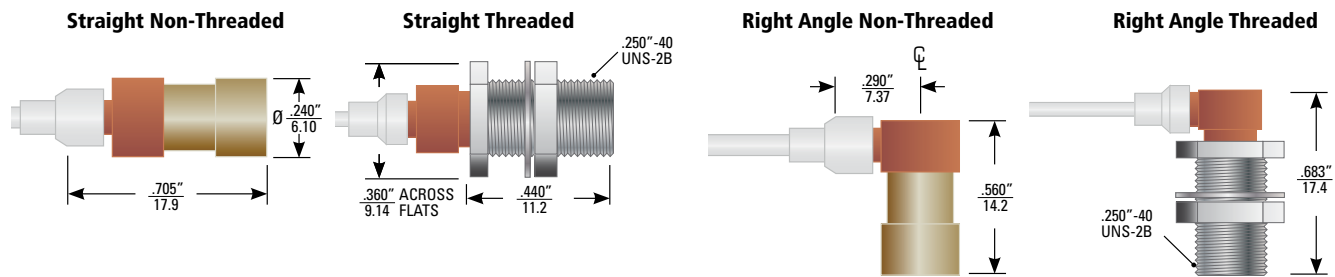
PeeWee is one of a family of subminiature, high-voltage connectors for use in high voltage applications where dense electronic packaging is required. The PeeWee connector uses Teledyne Reynolds' patented Advanced Interface™ method of sealing high voltage at reduced atmospheric pressure, which allows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

PLUG DIMENSIONS

(Dimensions shown as in/mm)



RECEPTACLE DIMENSIONS

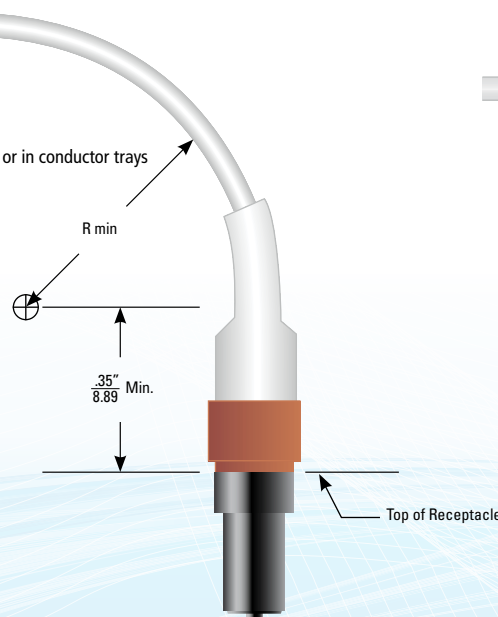


MATED HEIGHT AND BEND RADIUS

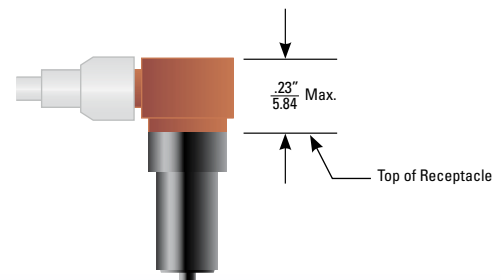
Straight Non-Threaded, Mated Height and Bend Radius

Recommended Minimum Cable Bend Radius

- 20 x cable diameter if cable is to be flexed
- 10 x cable diameter if cable is strapped down or in conductor trays
- 8 x cable diameter if cable is potted

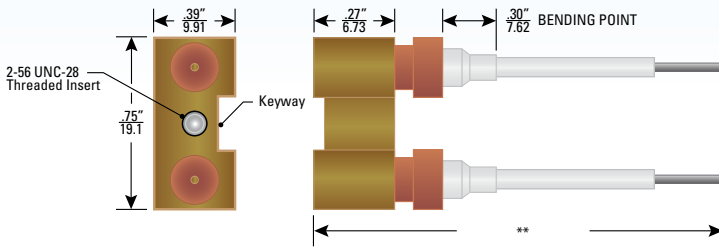


Right-angle, Non-threaded, Mated Height



RECEPTACLE CABLE ASSEMBLIES

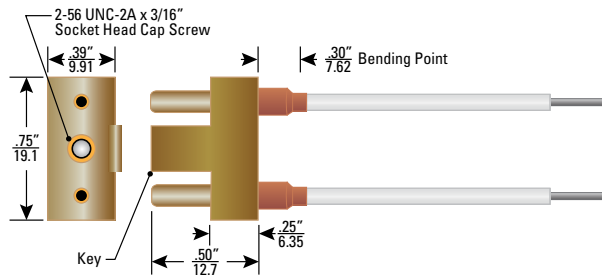
2-pin, Single-ended



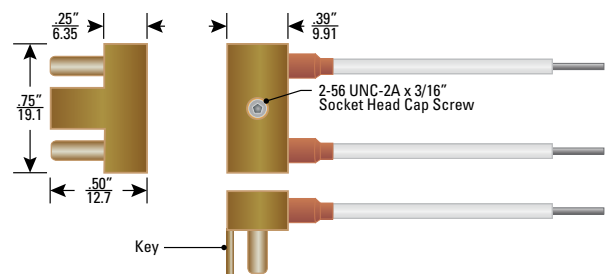
SINGLE-ENDED	WIRE TYPE	WIRE P/N
178-8433	Etched FEP	178-8111
178-8560	Silicone Coated FEP	178-8066
178-8561	Etched FEP, NOMEX® Jacket	178-8118
178-8562	Silicone Coated FEP, NOMEX® Jacket	178-5789

PLUG CABLE ASSEMBLIES

2-Pin, Single-ended



2-Pin, Single-ended, Right Angle



STRAIGHT	RIGHT ANGLE	WIRE TYPE	WIRE P/N
178-8556	178-8477	Etched FEP	178-8111
178-8557	178-8553	Silicone Coated FEP	178-8066
178-8558	178-8554	Etched FEP, NOMEX® Jacket	178-8118
178-8559	178-8555	Silicone Coated FEP, NOMEX® Jacket	178-8066

Note: Exposed cable insulation on NOMEX® covered single-ended cable assembly will be 1/2 inch less the cable length, unless otherwise specified.

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 (kVDC)	Test Voltage @ Sea Level (kVDC)
PeeWee	12	70,000	-55 to 125	5	Plastic or Ceramic	Plastic	Push-on or Threaded	Plastic	BeCu/Au with CRES hood	Brass/Au or Kovar®	Non-Shielded	FEP	N/A	18	N/A

WIRE SPECIFICATIONS

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

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