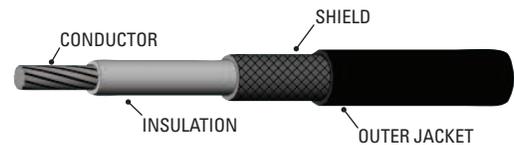


# HIGH VOLTAGE COAXIAL/SHIELDED CABLE

70,000 ft (21.3km)  
-55° to 125° C

Coaxial and shielded cables made by Teledyne Reynolds have been used in both military and industrial high voltage applications including radar, ECM systems, power supplies and instrumentation. Many of the cables have controlled impedance.

- ◆ Cables 167-2669 and 178-8793 have **controlled impedance, inductance and capacitance** for fast response times and are used extensively to connect Exploding Bridgewire Detonators (EBW) to a Capacitor Discharge Unit (CDU).
- ◆ Cable 178-5065 has **foam insulation, giving lower capacitance and higher impedance**. It has been used in cockpit displays.



Silicone rubber insulated high voltage wire and cable offer excellent dielectric strength and flexibility. Operation over a wide temperature range and ease of silastic bonding are other outstanding characteristics of silicone rubber cable. Due to the relatively softer nature of silicone insulation when compared to other insulation materials, these wires are more susceptible to "pin-hole" breakdown, abrasion, and some dielectric/coolant fluid incapacibilities exist.

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## High Voltage Coaxial/Shielded Cable Attributes

Part Number	Operating Voltage (kVDC)	Conductor			Insulation		Shielding			Jacket		Imp. (Ohms)	Atten. dB/100 ft @ 400 MHz	Cap. pF/ft @ 1 kHz
		AWG	Strands	Plating	Material	Diameter in/mm	AWG	Plating	Diameter in/mm	Material	Diameter in/mm			
178-5065	0.60	30	7/38	SPC	FEP	.072 / 1.82	38	SPC	.089 / 2.26	FEP	.103 / 2.61	95	†	13.5
178-6653	6	22	65/40	SPC	PFA	.041 / 1.04	42	SPC	.053 / 1.35	PFA	.070 / 1.78	12	25.0	76.0
167-2896 <sup>1</sup>	18	26	19/38	SPC	FEP	.050 / 1.27	36	SPC	.075 / 1.90	FEP	.095 / 2.41	46	25.0	33.7
178-8022 <sup>2</sup>	18	26	19/38	SPC	PO	.050 / 1.27	36	SPC	.075 / 1.90	PO	.095 / 2.41	46	25.0	33.7
167-2669 <sup>3</sup>	20	16	19/29	TPC	PE	.118 / 2.99	36	TPC	.150 / 3.51	PE	.195 / 4.95	31	16.0	48.0
178-6053 <sup>4</sup>	20	16	19/29	SPC	PFA	.118 / 2.99	36	SPC	.150 / 3.51	PFA	.195 / 4.95	35	13.0	40.4
178-8793	20	16	19/29	SPC	PFA	.118 / 2.99	36	TPC	.150 / 3.51	PE	.195 / 4.95	31	16.0	48.0
167-9346	22	22	19/34	SPC	FEP	.080 / 2.03	36	SPC	.100 / 2.54	FEP	.125 / 3.17	43	10.6	31.0
167-9596	22	18	19/30	SPC	SIL	.150 / 3.81	36	SPC	.180 / 4.57	SIL	.250 / 6.35*	†	†	†
178-7201	22	16	41/32	SPC	SIL	.165 / 4.19	34	SPC	.197 / 5.00	FG	.306 / 7.77**	†	†	†
167-8726	25	22	19/34	SPC	FEP	.100 / 2.54	36	SPC	.120 / 3.04	FEP	.145 / 3.68	50	8.1	29.3
167-9785	40	20	19/32	TPC	FEP	.150 / 3.81	36	TPC	.180 / 4.57	FEP	.220 / 5.58	50	12.2	26.0
167-8556	40	20	19/32	SPC	FEP	.150 / 3.81	2x36	SPC	.200 / 5.08	FEP	.230 / 5.42	50	12.2	26.0
167-9470	50	16	19/29	SPC	SIL	.280 / 7.11	34	SPC	.304 / 7.72	FG	.340 / 8.64**	†	†	†
178-7221	50	16	41/32	SPC	SIL	.280 / 7.11	34	SPC	.304 / 7.72	FG	.340 / 8.64**	†	†	†
178-6795	60	14	19/27	SPC	FEP	.180 / 4.57	36	SPC	.202 / 5.13	FEP	.255 / 6.47	40	5.56	36.0

When ordering, use part number and specify length in feet.

Color: 167-2896 standard cable jacket is white. 167-2669 standard cable jacket is red.

All other cable jackets are black. Contact factory for color options and availability, or please specify color requested when ordering.

<sup>1</sup> Type "L" cable

<sup>2</sup> Rated for use in high radiation

<sup>3</sup> Type "C" cable. Rated for use to 85°C

<sup>4</sup> Rated for use to 150°C

† TBD

\* Silicone rubber jacket \*\* Braided jacket

### Note:

Pre-conditioning of FEP and PFA wire or cable is recommended because these insulations will shrink when exposed to temperature cycling. Pre-conditioning should be conducted in an air circulating oven at 204°C (400°F) for one hour. Pre-conditioning should only be performed on cut lengths prior to stripping and any termination procedure. No attempt should be made to condition wire or cable in bulk form or while spooled.

FEP (Fluorinated Ethylene Propylene)

FG (Fiberglass)

PE (Polyethylene)

PFA (Perfluoroalkoxy)

PO (Polyolefin)

SIL (Silicone)

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](http://www.teledynereynolds.com) for the most up to date product information. Contact Teledyne Reynolds' Engineering to discuss custom designs.