

HIGH VOLTAGE INTERCONNECT PRODUCTS



Technology. Tested. Trusted.



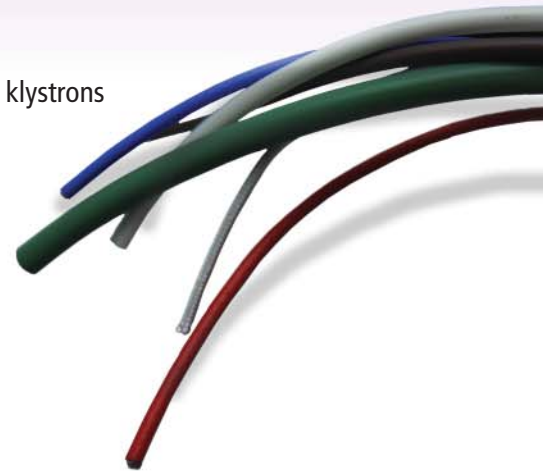
TELEDYNE REYNOLDS
Everywhereyoulook™

High Voltage Wire

Technology. Tested. Trusted.

Teledyne Reynolds' high performance high voltage wire has been used extensively for decades in a wide range of challenging applications, including:

- ◆ Vacuum tube based RF sources: MPMs, Travelling wave tubes, magnetrons and klystrons
- ◆ High voltage power supplies
- ◆ Night vision systems
- ◆ Laser systems: range finders, LIDAR and ring laser gyroscopes
- ◆ Semiconductor wafer inspection and handling equipment
- ◆ High energy physics research
- ◆ Mass spectrometers
- ◆ Spacecraft propulsion



FEP [5-30 kVDC]

Fluorinated Ethylene Propylene (FEP) offers exceptional dielectric properties that stand off high voltages at smaller diameters in comparison to silicone wire. FEP has a robust molecular structure, which makes it best suited for use in high temperature or harsh environment applications. Teledyne Reynolds' FEP high voltage wire is tested and highly controlled to offer one of the most trusted FEP wire on the market.

Ready-To-Bond™ [5-30 kVDC]

Teledyne Reynolds' Ready-to-Bond™ wire products take the hassle out of terminating fluoropolymer wires in high voltage systems.

Etched FEP: Teledyne Reynolds' Etched FEP wire offers the benefits of FEP, while providing a means to adhere to Epoxy encapsulates for challenging bonding or encapsulating applications.

Silicone coated FEP: Enables a cohesive bond when encapsulating with silicone rubber compounds or bonding to molded silicone rubber components using approved elastomeric bonding materials.

NOMEX® Woven Protective Jacket over Silicone coated FEP: An additional layer of protection for continued reliability in the harshest environments. Nomex® Woven Protective Jacket offers improved abrasion, chemical, radiation, and temperature resistance to the FEP wire without a considerable weight increase or loss of flexibility.

Quiet Line™ High Voltage, Distributed Loss, RF Attenuation Wire & Cable [5-20 kVDC]

Teledyne Reynolds' Quiet Line™ cable is ideal for use in high voltage applications requiring suppression of undesired RF interference or EMI noise. Quiet Line™ cable achieves the suppression by surrounding the stranded conductor with a proprietary "lossy" insulation material, comprised of ferrite-powder filled silicone. Since traditional low-pass filters are no longer required, the benefits of Quiet Line™ come in the form of weight and space savings.

Micro Flex™ [3-25 kVDC]

Offering an unmatched combination of size, flexibility and voltage handling, Micro-Flex™ are ideal for applications as transformer windings. They have also been used extensively as part of wire bundles where flex life and low flex force are critical.







Coaxial/Shielded [5-60 kVDC]

Teledyne Reynolds offers a range of coaxial and shielded high voltage cable and wire in a variety of insulating materials and jackets.

Hi/Pure™ 100% Partial Discharge Tested

A service provided by Teledyne Reynolds for applications, such as high vacuum/space-use, that require ultra-high reliability/long life. This service provides tested high purity insulated wire that is free of voids and the chance of insulation degradation due to partial discharge..

High Voltage Connectors

Single Pin - Unshielded		
Compact	Standard	Low Corona
PeeWee™**/** 	700 Series* 730 737 720 727 740 750 	SID™** 
Single Pin - Shielded		
Compact	Standard	Lab Safe
600 Series* Century+™* Maxxum™* 	300 Series 31 310 311 	500 Series 531 521 

The Teledyne Reynolds difference...

Over fifty years ago, Teledyne Reynolds, Inc. (TRI) pioneered development of miniature high voltage connectors for use in wide variety of missile and airborne radars and electronic warfare systems. Today, that experience enables reliable performance in a variety of high end commercial applications such as semiconductor manufacturing and inspection, medical imaging and instrumentation equipment.

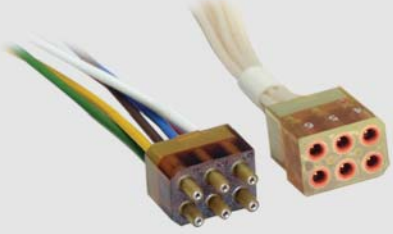


Teledyne Reynolds' extensive design, manufacturing and high voltage test capability provides an unparalleled level of control over product design and performance. Production processes include:



- ◆ wire extrusion
- ◆ etching and coating
- ◆ transfer and injection molding
- ◆ plasma-etching
- ◆ high reliability soldering
- ◆ high reliability encapsulation and potting
- ◆ curing ovens
- ◆ hydrogen and vacuum brazing
- ◆ real time x-ray

In addition to standard DWV testing at partial pressure, Teledyne Reynolds' capabilities include partial discharge test of continuous wire lengths as well as connectors & cable assemblies. For new design validations or applications requiring more rigorous environmental screening, our Southern California facility contains an array of environmental chambers and testing, including thermal-altitude, humidity, thermal cycle, helium leak and thermal shock.

Teledyne Reynolds offers a wide range of catalog high voltage wire, connectors and cable assemblies, with a select number of our most popular configurations available from stock.

Connector Selection Matrix

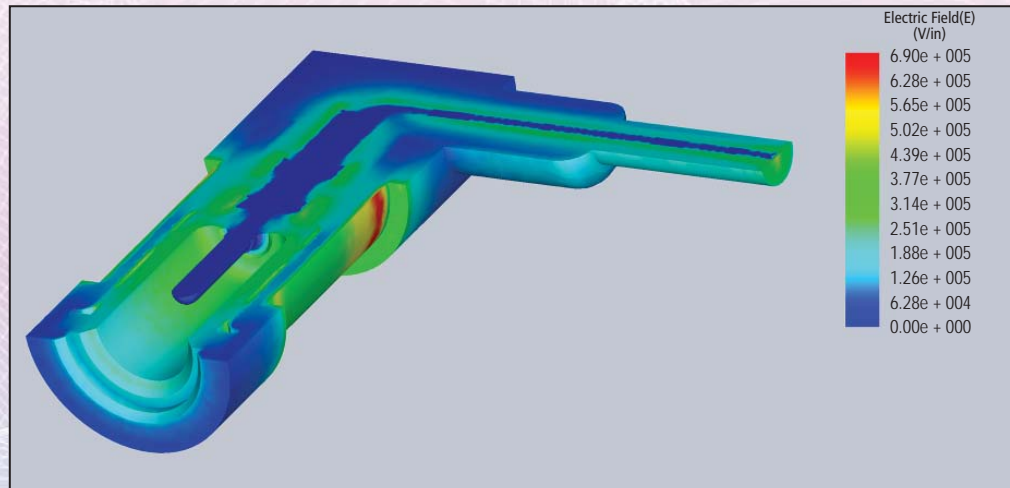
Multi Pin - Unshielded		
Rectangular Compact	Circular Compact	Mixed Signal, Standard Shell
<p>JR™ Series** (2/4/6 pin)</p> 	<p>1407 Series (7 pin) 1800 Series 1804 (4 pin) 1807 (7 pin)</p> 	<p>Hi/Mate™** MIL-DTL-38999 Contact D-Sub Contact</p> 

Multi Pin - Shielded	
Rectangular Compact	Circular Compact
<p>JR™ Series** (2/4/6 pin)</p> 	<p>1407 Series (7 pin) 1800 Series 1804 (4 pin) 1807 (7 pin)</p> 

*Ceramic-to-metal brazed hermetic feedthroughs available. Maximum leak rating of 1×10^{-8} cc/s He @ 1 ATM differential pressure.
 **Only available as a cable assembly.

Custom solutions...

In the event that an off-the-shelf solution doesn't fit your specific high voltage interconnect needs, Teledyne Reynolds has a rich history of developing custom, program specific solutions, including hybrid connectors and cable assemblies combining optics, signal and high voltage. This process is aided by a combination of solid modeling, E-Field simulation software and an internal model shop.



High Voltage Connectors

Product Specification Matrix

Style	Shielding	Feature	Product	Temperature Rating (°C)	Current Rating (Amps)	Voltage Rating	
SINGLE PIN	UNSHIELDED	Compact	PeeWee™	-55 to 125	5	12 kVDC	
		Standard	730		-55 to 125	13	10 kVDC
			737		-55 to 125	13	15kVDC
			720		-55 to 125	13	20 kVDC
			727		-55 to 125	13	25 kVDC
			740		-55 to 95	13	40 kVDC
			750		-55 to 95	13	50 kVDC
		Low Corona	SID™	-40 to 95	5	15 kVDC	
	SHIELDED	Compact	600		-55 to 125	5	5 kVDC
			600SL*		-55 to 125	5	10 kVDC
			Century+™		-55 to 125	5	18 kVDC
			Maxxum™		-55 to 125	13	25 kVDC
		Standard	31SL*		-40° to 85	10	6.5 kVDC
			310/311		-40 to 85	10	15 kVDC
		Lab-Safe	531SL*		-40 to 85	10	10 kVDC
			521SL*		-40 to 85	17	20 kVDC
MULTI PIN	UNSHIELDED	Rectangular Compact	JR™ (2/4/6 pin)	-55 to 125	3	6 kVDC	
		Circular Compact	1407 (7 pin)		-55 to 125	10	10 kVDC
			1804 (4 pin)		-55° to 125	13	15 kVDC
			1807 (7pin)		-55 to 125	13	15 kVDC
		Mixed Signal, Standard Shell	Hi/Mate™	-55 to 125	5	13.5 kVDC	
	SHIELDED	Rectangular Compact	JR™ (2/4/6 pin)	-55 to 125	3	6 kVDC	
		Circular Compact	1407 (7 pin)		-55 to 125	10	10 kVDC
			1804 (4 pin)		-55 to 125	13	15 kVDC
1807 (7pin)				-55 to 125	13	15 kVDC	

Connector's operating voltages are altitude/reduced pressure rated to 70,000 ft unless noted by an asterisk
 * Connector's operating voltage is rated for sea level use

Additional Products



**Mica+™
High Voltage
Mica Capacitors**



**Spark Gaps/
Triggered Spark Gaps**

Markets Served



MILITARY/DEFENSE



SPACE



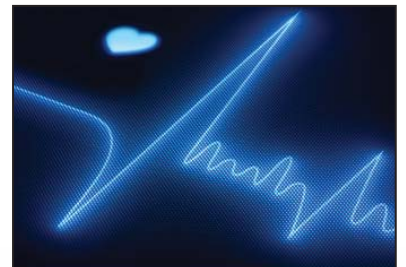
HIGH END INDUSTRIAL



TEST AND INSTRUMENTATION



ENERGY



MEDICAL



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Quality Policy

Teledyne Reynolds, Inc. strives to satisfy customer expectations by providing quality products, on time, and in compliance with customer requirements.

As an organization, we are committed to continual process improvement and employee development.

In support of these objectives, quality objectives are established, measured, reported, and periodically reviewed for continuing suitability.

Teledyne Reynolds, Inc. holds quality certifications for the following:

- ◆ ISO9001:2008
- ◆ AS9100C
- ◆ IPC 610/620
- ◆ J-STD-001

TeledyneReynolds.com