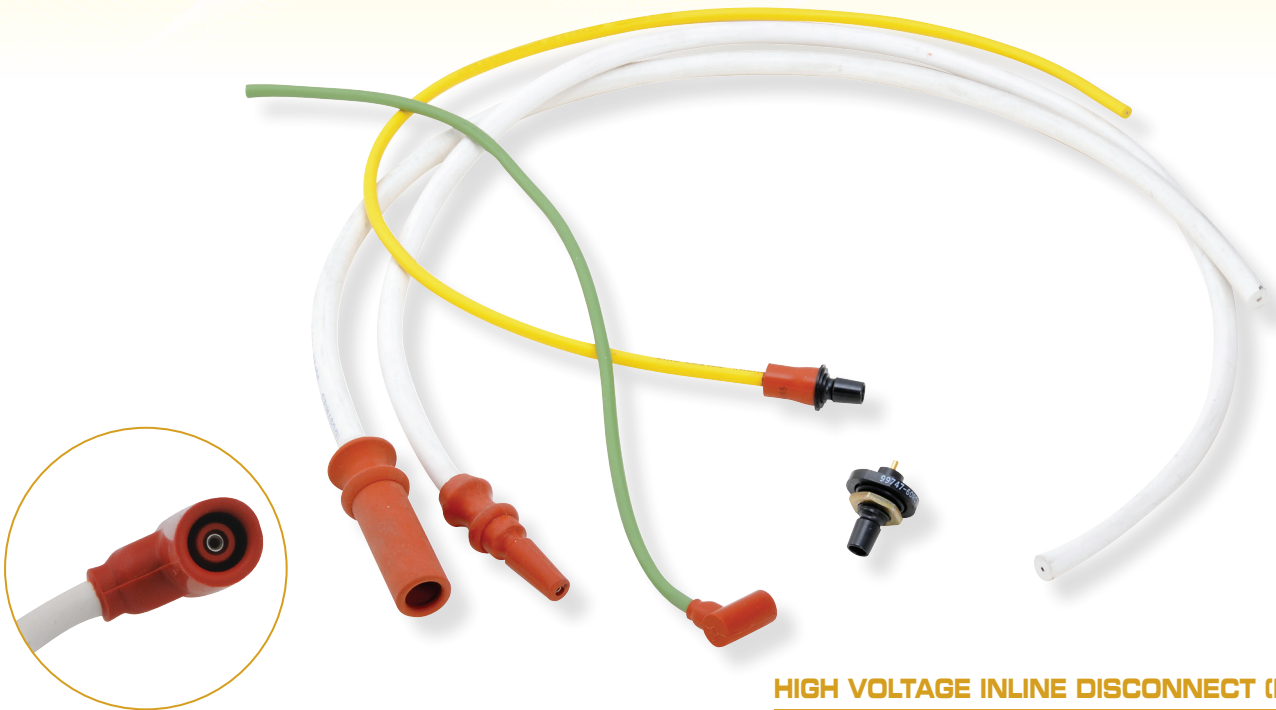


# Low Corona Discharge Connectors



## INTRODUCTION

These two series of Inline Disconnects use push-on, pull-off friction mating of the two silicone rubber halves with a tapered interface that significantly reduces trapped air to achieve corona resistant high voltage performance.

Both series are available as single-ended, pre-tested, assemblies. The larger High Voltage Inline Disconnects (HVID) series also comes in kits containing an insulator and a contact for field installation. Assembly of these kits requires the use of RTV silicone adhesive.

The HVID series is used in ground level applications for:

- Electronic Countermeasure Systems (ECM)
- Travelling Wave Tube (TWT) and TWT amplifier connections
- Lasers
- High Voltage Power Supplies
- CRT Displays
- Semiconductor inspection equipment

While the smaller SID series is rated for use in the above applications in an airborne environment (70,000 ft.) and over a broader temperature range (-55° to 95°C)

## HIGH VOLTAGE INLINE DISCONNECT (HVID) SPECS

### General Specifications

Voltage Rating:	17 to 60 kVDC
Altitude Rating:	Up to 15,000 ft.
Operating Temp. Range:	-40° to 85°C
Insulator/Body Material:	Silicone Rubber
Wire Type:*	Silicone Rubber
Test Voltage @ 70,000 ft. (Simulated) and Ambient Temperature:	
	17 kVDC Version      25 kVDC
	45 kVDC Version      60 kVDC
	60 kVDC Version      70 kVDC

	Plug	Receptacle
Contact Type:	Female	Male
Contact Material/Finish:	BeCu/Gold Plate	Brass/Gold Plate
Kit Contents:	Insulator & Female Contact	Insulator & Male Contact

## SILICONE INLINE DISCONNECT (SID) SPECS

### General Specifications

Voltage Rating:	15 kVDC
Altitude Rating:	Up to 70,000 ft.
Operating Temp. Range:	-55° to 95°C
Test Voltage @ 70,000 ft. (Simulated) and Ambient Temp:	20 kVDC

	Plug	Receptacles
Insulator/Body Material:	Silicone Rubber	Plastic
Contact Material/Finish:	BeCu/Gold Plate	Brass/Gold Plate
Wire Type:†	Silicone Rubber	N/A

\* Unless specified, white wire will be used. †Versions with silicone coated FEP or Semicon wire are available. Contact Teledyne Reynolds Engineering for more information.



**TELEDYNE REYNOLDS**  
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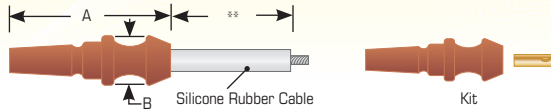
Navigation House Canal View Road  
Newbury Berkshire RG14 5UR UK

Tel: +44 1635 262200 Fax: +44 1635 30920

Email: [trlsales@teledyne.com](mailto:trlsales@teledyne.com) [www.teledynereynolds.co.uk](http://www.teledynereynolds.co.uk)

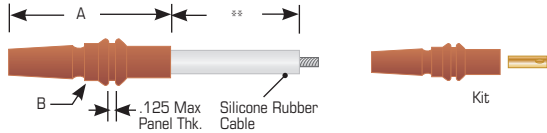
# Low Corona Discharge Connectors

## HVID PLUG CABLE ASSEMBLIES & KITS



	PART NO.	A LENGTH	B DIA.	CONDUCTOR	CABLE DIA.	KIT P/N	WIRE
17 kVDC	2R1031	1.85"	.635"	18 AWG	.160"	2R1031-KIT	167-6146
45 kVDC	2R1033	2.31"	.781"	16 AWG	.300"	2R1033-KIT	167-6147
60 kVDC	5R1033	2.75"	.812"	14 AWG	.385"	5R1033-KIT	178-6181

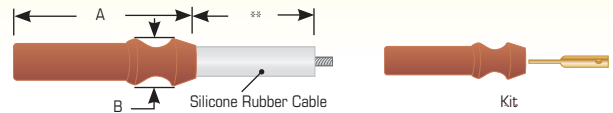
## HVID PLUG PANEL MOUNT CABLE ASSEMBLIES AND KITS



	PART NO.	A LENGTH	B DIA.	CONDUCTOR	CABLE DIA.	KIT P/N	WIRE
17 kVDC	R1031	1.53"	.438"	18 AWG	.160"	R1031-KIT	167-6146
45 kVDC	R1033	2.00"	.531"	16 AWG	.300"	R1033-KIT	167-6147
60 kVDC	6R1033	2.75"	.680"	14 AWG	.385"	6R1033-KIT	178-6181

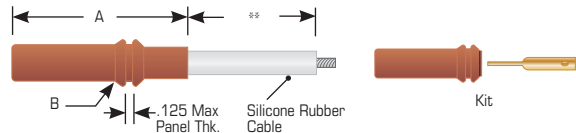
- **Mounting:** Grommet
- **Assembly Instructions:** Visit [teledynereynolds.com](http://teledynereynolds.com)
- **Kits:** Kits containing a molded housing (insulator) and one contact are available for field installation. Wire not included but may be purchased from Teledyne Reynolds. A suitable RTV silicone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

## HVID RECEPTACLE CABLE ASSEMBLIES & KITS



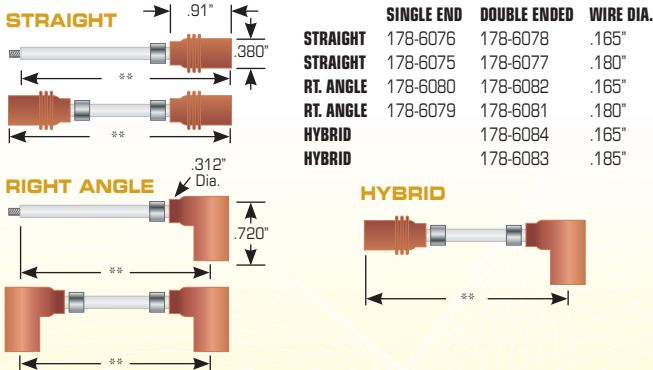
	PART NO.	A LENGTH	B DIA.	CONDUCTOR	CABLE DIA.	KIT P/N	WIRE
17 kVDC	2R1030	2.09"	.625"	18 AWG	.160"	2R1030-KIT	167-6146
45 kVDC	2R1032	2.56"	.781"	16 AWG	.300"	2R1032-KIT	167-6147
60 kVDC	4R1032	3.00"	.812"	14 AWG	.385"	4R1032-KIT	178-6181

## RECEPTACLE PANEL MOUNT DISCONNECT CABLE ASSEMBLIES & KITS

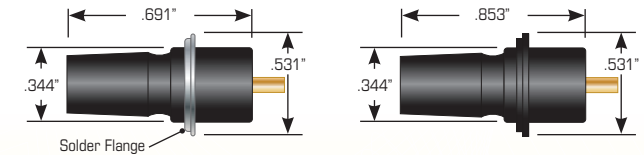


	PART NO.	A LENGTH	B DIA.	CONDUCTOR	CABLE DIA.	KIT P/N	WIRE
17 kVDC	R1030	1.81"	.438"	18 AWG	.160"	R1030-KIT	167-6146
45 kVDC	R1032	2.56"	.531"	16 AWG	.300"	R1032-KIT	167-6147
60 kVDC	5R1032	3.00"	.680"	14 AWG	.385"	5R1032-KIT	178-6181

## SID PLUG CABLE ASSEMBLIES - 15 kVDC



## SID RECEPTACLES - 15 kVDC



**SOLDER-FLANGED**  
**P/N 26RC1031**  
**Mounting:** Solder flange  
**Terminal type:** Exposed solder tube  
**Body Material:** Molded Plastic  
**Max Leak Rate:**  $1 \times 10^{-6}$  cc/sec. He

**PLASTIC-FLANGED**  
**P/N 29RC1031**  
**Mounting:** Designed for encapsulation or bonding  
**Terminal type:** Flush to recessed solder tube  
**Body Material:** Molded Plastic

## NEW! LOW CORONA CABLE ASSEMBLY



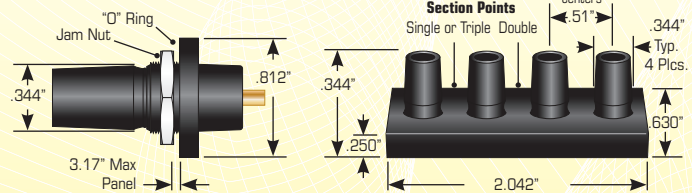
Teledyne Reynolds is in the process of developing a new Low Corona cable assembly that will mate with ISI's PowerBoot™ ceramic feedthroughs.

- Features include:
- Semicon cable
  - Semicon paint coating
  - 15 kVDC.

Please contact Teledyne Reynolds Engineering for more information.

\*\*Cable Assembly Ordering Information: Use "F" for feet, "N" for inches.  
**Example:** Assembly 178-6027 10 feet 8 inches in length is ordered as **P/N 178-6027-10F-8N**

**Note:** Product part numbers, dimensions and specifications are subject to change without notice. Products listed represent only a small selection of Teledyne Reynolds' products. Please visit [www.teledynereynolds.co.uk](http://www.teledynereynolds.co.uk) for the most up to date product line. Contact Teledyne Reynolds Engineering to discuss custom designs. **WARNING:** Connectors should **NEVER** be handled mated or unmated when voltage is applied.



**FLANGED JAM NUT**  
**P/N 60RC1031**  
**Mounting:** Jam nut flange  
**Terminal type:** Exposed solder tube  
**Body Material:** Molded Plastic  
**Seals:** "O" ring flange seal  
**Max Leak Rate:**  $1 \times 10^{-6}$  cc/sec. He

**PLASTIC 4-RECEPT. BLOCK**  
**P/N 34RC1031**  
**Mounting:** Designed for encapsulation or bonding  
**Terminal type:** Flush solder tube (4 places)  
**Body Material:** Molded Plastic  
**Note:** Block can be precision cut by customer to convert to single, double or triple pin connector