

Series

**401**  
HI-REL

**40 KVDC**

**GENERAL SPECIFICATIONS**  
For Military/Aerospace Applications

**Series 401**

These HI-REL connectors, rated at 40 KVDC, are shielded with spring grounding fingers on the plug. The connectors will operate at altitudes up to 70,000 ft. at the rated voltage. Operating temperature is -55°C to +125°C.

**Applications**

Series 401 connectors are used in both airborne and ground high voltage power supplies and components requiring high voltage interconnections.

**Interface cleaning**

High voltage connectors must always be cleaned prior to mating. The proper cleaning method is to wipe or spray the interface area with isopropyl alcohol and immediately blow an inert gas such as dry nitrogen over the interface area until dry. No other cleaning method should be attempted.

**WARNING:** These connectors should **NEVER** be handled, mated or unmated when voltage is applied.



**GENERAL SPECIFICATIONS**

Operating voltage up to 70,000 ft.

Operating temperature range

Receptacle insulator material

Plug insulator material

Bayonet coupling

Bayonet coupling nut diameter. Inches/mm

Body and coupling nut Material/finish

Male contact size (plug)

Male contact material/finish

Female contact material/finish

Hooded female contact

Crimp braid termination (plug)

Maximum panel thickness inches/mm

100% test voltage

**40 KVDC**

**-55°C to +125°C**

**Plastic**

**Plastic with silicone rubber interface seal**

**Yes**

**1.16/29.4**

**Brass/nickel**

**12 gauge**

**Brass/Gold**

**Be Cu/Gold**

**Yes**

**Yes**

**.380/9.6**

**60 KVDC @ 70,000 ft. altitude (simulated)**

Length: feet/M	Tolerance: inches/mm
7.5/2.28 or less	0.25/6.3
7.5/2.2 to 12.5/3.8	1.0/25.4
12.5/3.8 to 22.5/6.8	1.50/38.1
22.5/6.8 to 35/10.6	2.0/50.8
35/10.6 to 50/15.2	3.0/76.2
50/15.2 to 70/21.3	4.0/101.6
70/21.3 to 100/30.4	5.0/127

Cable Assembly  
Length vs Manufacturing  
Tolerance Chart

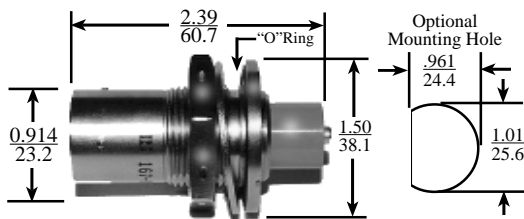
Series

**401**  
**HI-REL**

**40 KVDC**

Altitude Rated  
For Military/Aerospace Applications  
**Operating Temperature:**  
-55°C to +125°C

### Receptacles

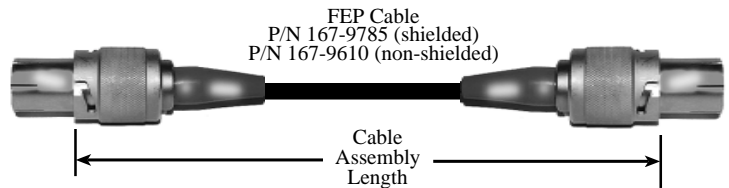


**P/N 167-9833** Sealed Rear Mount Receptacle

### Receptacle Attributes

Operating voltage: 40 KVDC up to 70,000 ft.  
Pressure: Sealed for 15 psi differential pressure.  
Maximum leakage:  $1 \times 10^{-6}$  cc/sec. He.  
Mounting: Rear mount. Requires 1.010" diameter hole or optional "D" hole (shown)

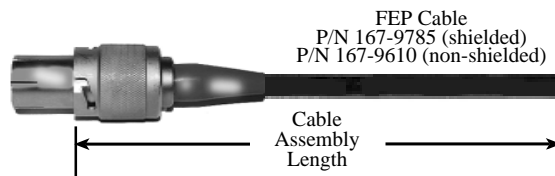
### Cable Assemblies



#### Series 401 Shielded Double-Ended Cable Assembly

**P/N 167-8793** (shown) uses shielded .150 Dia. FEP cable and Plug P/N 167-9831

**P/N 167-8795** Uses non-shielded .150 Dia. FEP wire and Plug P/N 167-8899



#### Series 401 Shielded Single-Ended Cable Assembly

**P/N 167-8794** (shown) uses shielded .150 Dia. FEP cable and Plug P/N 167-9831

**P/N 167-8796** Uses non-shielded .150 Dia. FEP wire and Plug P/N 167-8899

### Series 401 Cable Assembly Attributes

Operating voltage: 40 KVDC up to 70,000 ft.  
Mating connectors: Mates all series 401 receptacles  
Ordering: See Cable Assembly Ordering Information, below  
Bulk cable: See p. 40 for ordering and specifications

### Cable Assembly Ordering Information

Order by Part Number  
Use "F" for feet, "N" for inches.  
Example: Cable Assembly 167-8793 10 feet 8 inches in length, is ordered as **P/N 167-8793-10F-8N**