



Series

521

20 KVDC

GENERAL SPECIFICATIONS

Series 521

A series of high voltage connectors, kits and cable assemblies designed to minimize the risk of electrical shock to personnel through the use of recessed contacts. Both the panel and cable connectors have recessed contacts and will stand off the rated voltage in the unmated condition.

The reduced pressure version is rated at 20 KVDC and will operate at reduced atmospheric pressure. The sea level version is rated at 20 KVDC. The operating temperature of both versions is limited to -40°C to +85°C

Applications

Series 521 connectors are ideal for laboratory and research applications. The connectors are also well suited for use in ground-based power supplies and other components where reliable high voltage connections are essential. These connectors feature a spring finger contact on the plug body which assures a reliable ground circuit prior to engagement of the center contact, further reducing the risk of electric shock.

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 SPECIFICATION

Sea level voltage rating	20 KVDC
Reduced atmospheric pressure rating	20 KVDC
Operating temperature range	-40°C to 85°C
Plug insulator material	Plastic
Receptacle insulator material	Plastic
Bayonet coupling nut diameter	0.750/19mm
Bayonet coupling nut material/finish	Brass/nickel plate
Male contact diameter (receptacle)	.077/19mm
Male contact material/finish	Brass/gold plate
Female contact material/finish (plug)	Be Cu/gold plate
Spring finger grounding (plug)	Yes
Crimp braid termination (plug)	Yes
100% voltage test	41 KVDC (@ 70,000 ft. sim.) 28 KVDC (sea level)

Cable Assembly
Length vs Manufacturing
Tolerance Chart



Reduced Pressure Plug Version



Sea Level Plug Version



Receptacle

521 Reduced Pressure 521 Sea Level

20 KVDC	20 KVDC
20 KVDC	No Rating
-40°C to 85°C	-40°C to 85°C
Plastic	Plastic
Plastic	Plastic
0.750/19mm	0.750/19mm
Brass/nickel plate	Brass/nickel plate
.077/19mm	.077/19mm
Brass/gold plate	Brass/gold plate
Be Cu/gold plate	Be Cu/gold plate
Yes	Yes
Yes	Yes
41 KVDC (@ 70,000 ft. sim.)	28 KVDC (sea level)

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