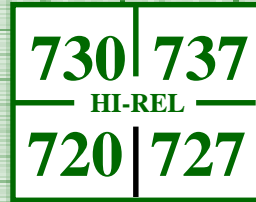


Series



GENERAL SPECIFICATIONS

For Military/Aerospace Applications

Series 700 HI-REL Cable Assemblies, Plugs and Receptacles

These HI-REL assemblies are rated from 10 to 25 KVDC and will operate at altitudes up to 70,000 ft. over a temperature range of -55°C to +125°C. In comparison to the C series, the HI-REL series has improved temperature range exposure at altitude operation due to incorporation of annular sealing rings on the plug insulator.

HI-REL plugs are offered in kit form when customers find it necessary to fabricate cable assemblies. Customers should use silicone rubber or silicone coated FEP cable of a diameter matching the rear insulator hole. Fluorosilicone rubber insulators are available for applications where Coolanol™ or other fluids that cause silicone rubber to swell may exist.

Plastic bodies are included in the HI-REL plug design to captivate the coupling nut and prevent tearing of silicone insulators from overtorque during mating.

Cable assemblies are 100% tested at a level above the rated voltage and a simulated altitude of 70,000 ft.. Only approved military quality materials are used in the manufacture of these connectors with full traceability of manufacturing processes.

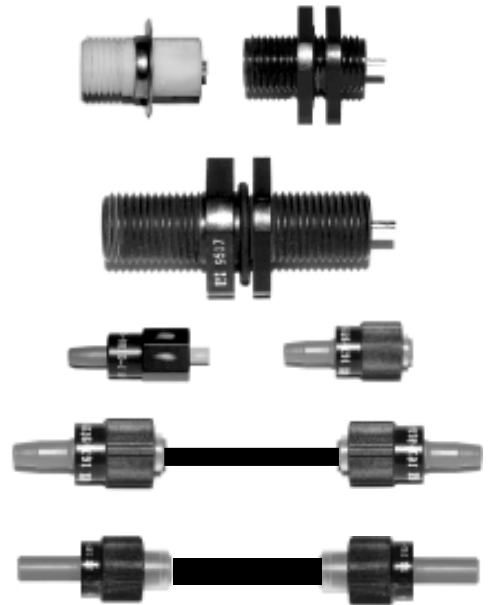
Series 700 HI-REL connectors have been widely used for more than 25 years in Military/Aerospace applications. Typical applications are:

- Electronic Countermeasure Systems (ECM) • TWT connections
- Lasers • Airborne high voltage power supplies

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

	730/830	737	720	727
Voltage Rating: Sea level to 70,000 ft.	10 KVDC	15 KVDC	20 KVDC	25 KVDC
100% test voltage @ 70,000 ft. (ambient temp.)	15 KVDC	18 KVDC	25 KVDC	35 KVDC
Operating temperature range	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C
LGH I* series mating compatibility	LGH 1/2I	LGH 1/2LI	LGH 1I	LGH 1LI
Plug insulator material	rubber	rubber	rubber	rubber
Receptacle insulator material	plastic	plastic	plastic	plastic
Coupling ring material	plastic	plastic	plastic	plastic
Metal coupling ring available (special order)	Yes	Yes	Yes	Yes
Male contact size (Recpt.) Dia. Inches/mm	.063/1.6	.063/1.6	.063/1.6	.063/1.6
Male contact material/finish	Brass/Gold plate	Brass/Gold plate	Brass/Gold plate	Brass/Gold plate
Female contact material/finish (Plug)	Be Cu/Gold plate	Be Cu/Gold plate	Be Cu/Gold plate	Be Cu/Gold plate
Female contact hood material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Front and rear mount receptacles available	Front only	Yes	Front only	Yes
Right angle receptacles available	Yes	No	Yes	No
Ceramic-to-metal receptacles available	Yes	No	Yes	No

Cable Assembly
 Length vs Manufacturing
 Tolerance Chart

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

*LGH is a trademark of AMP, Incorporated
 ** Silicone coated