



CA1-type Connector for up to 100kVDC

Claymount CA1 medical high voltage cable assemblies are X-ray cables terminated with 3-pin (O3) Federal Standard terminations rated for up to 100 kVDC. These assemblies fully comply with IEC 60526 and NEMA XR-7 standards, and are type tested under the severest life (aging) conditions.

Features

- A wide choice of small diameter, highly flexible cable types with 95% shielding coverage, rated for up to 100 kVDC.
- High temperature 100°C rated plugs, with replaceable spring contact pins.
- Maintenance-free plugs if silicone washer version is used.
- Small diameter flange - cable assemblies are slipped in easily - ring nut and bolted type divided flange for positive grounding to be mounted later.

- Unique moulded-on soft PVC sleeves, assuring maximum cable stress relief with optimal bending and flexing features to ensure long life endurance.

Description

The plugs are made from a UL 94 5VA approved high insulation thermoplastic material and are filled with an insulation compound. The metal parts (directly moulded inserts, spring contact pins and grounding flange) are made from brass for a good conduction. As a unique feature, the contact pins are replaceable by means of a special tool in case of damage. The small outer diameter of the plugs allows an easy feed-through in C-arms and cable hoses. For long-lasting flexibility the soft PVC-sleeve is directly moulded on to the plug.

Installation

For maintenance-free installation of the plug into its receptacle, our silicone washer & oil set is recommended. First, the silicone washer is lubricated with silicone oil, and placed on top of the termination over the contact pins. Then, the connector is inserted into the receptacle, and the ring nut is tightened and secured with the grub screw. The silicone washer will absorb the applied silicone oil and swell, filling up the space between the top of the connector and the bottom of the receptacle and building up the necessary pressure, for adequate electrical insulation. In combination with our special connector and receptacle materials, the silicone washer is able to provide full 75 kVDC rated high voltage insulation. The washer is extremely simple to use, and unlike grease it is not messy at all. Moreover, common grease problems (especially at higher temperatures) like leaking, migration, and drying out, are non-existent when using the silicone washer. Therefore regreasing is not necessary, resulting in maintenance-free installation. The washer only needs to be replaced after the ring nut has been loosened.

Of course, silicone grease is also available, or as an alternative transformer oil can be used. This plug can be installed with Claymount patented oil-seal mounting flange set to suit CT and likewise systems. Standard installation hardware for one Claymount cable assembly consists of two ring nuts, two divided flanges that can be mounted together with screws, two rubber sealing gaskets and two silicone rubber washer/oil sets. For 100 kVDC operation, installation with silicone grease or transformer oil is required.

Cable types

The following cable types can be terminated with CA1-type connectors

L3 (Locaflex 3 conductors, 75 kVDC)
T3 (Superflex, conductors, 75 kVDC)
U3 (3 conductors, 100 kVDC)

Technical data

Number of contacts	3
Rated voltage ¹⁾	washer/grease or oil 75 / 100 kVDC
Maximum continuous operating temperature	100 °C / 212 °F
Outer diameter	40 mm / 1.575 in

¹⁾= depending on the way of installation (washer/grease or oil) and not to exceed the rated voltage of the cable used.

