



Application Note

Ion Chamber Connectivity with RTI Chamber Adapter

This application note describes the connectivity of different types of ion chambers to the RTI Chamber Adapter. This is not a complete overview. The type of chambers that are most commonly questions about are described hereunder.

Introduction

In general, all types of ion chambers of triaxial type can be connected to the RTI Chamber Adapter by using a proper adapter cable. An adapter is required if the ion chamber is not equipped with the LEMO type 0 connector that RTI uses as standard.

For the practical use one also must consider the sensitivity and the dynamic range of the ion chamber together with the RTI Chamber Adapter and Piranha or Cobia.

General info about the design

The RTI Chamber Adapter is designed with an electrometer that is floating on -300 V. The ion chamber is connected via a triaxial LEMO type 0 connector. The following voltages are supplied in the connector.

<i>Collector electrode (center pin)</i>	<i>-300 V</i>
<i>Guard (Inner shield)</i>	<i>-300 V</i>
<i>Outer shield</i>	<i>0 V</i>

Application Note

Adapter cables supported by RTI

97060115-00



BNT adapter cable

This adapter is intended for standard triaxial ion chambers with a bayonette triaxial BNC connector.

97060116-00



TNT adapter cable

This adapter is intended for standard triaxial ion chambers with a thread triaxial TNC connector.

97300099-01



Malco to LEMO adapter

This adapter is intended for use with Radcal type 10x5 chambers.

Notice: This adapter is no longer available for purchase.

Using an adapter cable is the sole responsibility of the end user. High voltage on outer parts of chamber and/or connector is possible.

Chambers supplied by RTI for use with the RTI Chamber Adapter

9705060-00	DAP chamber 147x147 mm
9705070-00	DAP chamber 147x147 mm
9730025-00	RTI CT Ion Chamber
9730026-00	RTI CT Ion Chamber 30 cm
9705111-00	CT Ion Chamber DCT 10 RS
9705135-00	CT Ion Chamber 30 cm (Euromechanics)
9706100-00	Ion Chamber Magna 1cc

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