

IONIZATION CHAMBERS

Model # IC-1

Model # IC-2

DESCRIPTION

The **IC-1** and **IC-2** ionization chambers are used for detection and measurement of beta and gamma radiation or gamma radiation exclusively. They can be installed in "hot" locations in a laboratory or reactor installations where it is desirable to monitor for control or health and safety purposes.

Model **IC-1** has approximately one-half of the wall area cut away in the form of four windows which are fitted with 0.005" thick mylar. It is sensitive to soft radiation and is used for the detection and measurement of gamma radiation.

Each model has an active volume of 2 liters (18.5cm long x 12cm diameter). The overall dimensions are 20cm L x 13cm W x 13cm D. The weight is 3 pounds. The walls of the chamber are made of phenolic. High voltage and ion current connector (UHF style) is located at one end of the chamber. The collector is an aluminum rod with fins to prevent recombination at high fields. Insulators are Teflon. Wall mounting brackets are included.

DETECTOR RESPONSE

Gamma Energy: **IC-1** is sensitive Down to 2KeV; energy independent ($\pm 15\%$) 4KeV to 6MeV.

IC-2 is sensitive down to 10KeV; energy independent ($\pm 15\%$) 20KeV to 7MeV.

Beta Energy: Sensitive down to 0.15MeV; energy independent ($\pm 25\%$) 0.4MeV to 7MeV (**IC-1** Only).

Temperature: Operating range between -30°C and 65°C ; drift less than -0.4% per $^{\circ}\text{C}$ at room temperature. 0-95% humidity non-condensing.



Figure: IC-1

TA

TECHNICAL ASSOCIATES

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