

Technical Data Sheet

Ionisation Chamber LB 6701L-H10

Application

Dose rate probe for photon radiation in Health Physics applications.

Measured Quantity

Ambient dose equivalent $H^*(10)$ or
Ambient dose rate equivalent $\dot{H}^*(10)$

Construction

The Ionisation Chamber is made from Aluminum with a Nitrogen gas filling at 10 bar and a radiation resistance up to 10^6 Gy. The chamber current is proportional to the dose rate, this current is converted into a +5 V Norm pulse frequency in the Current/Frequency converter LB3857.

The Current/Frequency converter can be connected to a standard Data Logger using the connection cable Id.Nr. 74553.

A ^{90}Sr check source with 2.5 kBq activity is built in the Ionisation Chamber to continuously monitor the proper functioning of the system.

Technical Data

- ▶ **Measuring Range**
10 $\mu\text{Sv/h}$ – 10 Sv/h (0°C to +50°C)
1 $\mu\text{Sv/h}$ – 10 Sv/h (+10°C to +40°C)
- ▶ **Energy Range**
45 keV – 7 MeV
with regard to Cs-137 and 0°
- ▶ **Calibration Factor**
14 fA/ $\mu\text{Sv/h}$
- ▶ **Output pulse I-F-Converter**
Polarity: positive
Amplitude: + 5 V in 50 Ω
Pulse Width : 3 - 5 μs
Frequency range: 100 kHz
- ▶ **High Voltage**
1000 Volt
- ▶ **Operating Conditions**
Temperature: 0°C to +50°C
Rel. humidity: 20% to 80%
Storage temp.: 0°C to 60°C
Altitude: <2000m
- ▶ **Protection Degree**
IP 54
- ▶ **Dimensions**
- Ionisation chamber: 80 mm \varnothing x 268 mm
- I-F-Converter
Connection box: 217 x 81 x 76 mm

