

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 Aluminium 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 +11V Norm pulse frequency in the Current/Frequency converter LB3856-24.

The Current/Frequency converter is mounted in a separate housing LB6703 which also contains the High Voltage module to operate the Ionisation Chamber.

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
- ▶ **Energy Range**
45 keV – 1,3 MeV
with regard to Cs-137 and 0°
- ▶ **Calibration Factor**
0,1 mSv/h per cps
- ▶ **Output pulse I-F-Converter**
Polarity: positive
Amplitude: + 4,5 V in 50 Ω
Pulse Width : 2 - 5 μs
Frequency range: 0,1 Hz – 100 kHz
- ▶ **High Voltage**
1000 Volt
- ▶ **Operating Conditions**
Temperature: 0 to + 50°C
Rel. humidity: 20 to 80 %
Storage temp.: max. 60°C
- ▶ **Protection Degree**
IP 65
- ▶ **Dimensions**
- Ionisation chamber: 80 mm \varnothing x 268 mm
- I-F-Converter
Connection box: 240 x 160 x 90 mm

