

## 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  $^{90}\text{Sr}$  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  $0^\circ$
- ▶ **Calibration Factor**  
0,1 mSv/h per cps
- ▶ **Output pulse I-F-Converter**  
Polarity: positive  
Amplitude: + 4,5 V in 50  $\Omega$   
Pulse Width : 2 - 5  $\mu\text{s}$   
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

