3 Liter Chambers for Radiation Monitoring

Cylindrical polyethylene ionization chambers for stationary radiation monitoring of gamma radiation

Features

- Vented sensitive volume of 3 liters
- Suitable as radiation monitoring chambers
- Gamma energy range 80 keV to 1.3 MeV

The 3 liter chambers are used as stationary surveillance devices for environmental radiation monitoring. The chambers are designed to measure protection level dose rates. The response is $1 \cdot 10^{-4}$ C/Sv. The maximum dose rate at 90 % saturation is 10 Sv/h. The chambers are fully guarded up to the measuring volume. Since the sensitive volume is open to the surroundings, air density correction is required for precise measurement.

The cylindrical chambers are made of graphite coated polyethylene with 4 mm wall thickness. The ion-collecting electrode is made of graphite coated polyethylene too. The external chamber diameter is 150 mm and the length is approx. 200 mm. For the transfer of the measuring signal and the polarizing voltage, the chambers are supplied with two coaxial connectors (model 34031) or one triaxial connector (model 32004). The maximum length of an extension cable to connect a dosemeter is 100 m. The maximum chamber polarizing voltage is 1000 V.

The chamber model 34031 is supplied with an integrated adapter for positioning a radioactive check source of type T48010, which make it possible to check the proper performance of the entire measuring system.

Ordering Information

T34031 Monitoring chamber 3 l, 2 Fischer coax connectors
T32004 Monitoring chamber 3 l, 1 LEMO triax connector

Option

T7262/U10-1.5 Connection cable with M connector for the monitoring chamber type T34031, length 1.5 m

- UNIDOS/UNIDOS E Dosemeters *pages 13 and 138*
- Radioactive Check Device *page 23*