Kr-85-370

The Kr-85 Neutralizer is a bipolar neutralizer that generates positive and negative ions through ionization with the emitted β radiation. Suppose these ions are brought together with an aerosol; a defined equilibrium charge distribution is established, as is necessary for measuring systems, such as scanning mobility particle sizers (e.g., Palas U-SMPS system). This neutralizer is available in two versions with different activities, 75 MBq, and 370 MBq.

Compared to unipolar neutralization, bipolar neutralization has a significant advantage: regardless of the initial state of charge of the particles, a reproducible equilibrium charge distribution is always established. Bipolar neutralization is mandatory for traceable calibration of a condensation particle counter (e.g., ISO / CD 27891).

As the Kr-85 neutralizer is an enclosed radioactive source, additional requirements ...

Benefits

- Reliable method for defined charge neutralization
- Long lifetime
- Low maintenance
- Low operation costs

Applications

- Neutralization for SMPS systems
- Neutralization for filter test systems
- Neutralization for diverse measuring tasks and to avoid particle losses due to electrostatic deposition

DATASHEET

Volume flow	Up to 5 l/min	Housing	Stainless steel
Aerosol outlet connection	Øinside= 4 mm, $Ø_{outside}$ = 6.5 mm	Activity of the radiator	370 MBq
Type of radiation	β-radiation	Operation principle	Ionisation of air molecules by radioactive radiation
Half-life period of the radiator	10.8 years	Aerosol inlet connection	Øinside= 4 mm, $Ø_{outside}$ = 6.5 mm
Dimensions	38.3 • 220 mm (Ø • L)	Weight	500 g