

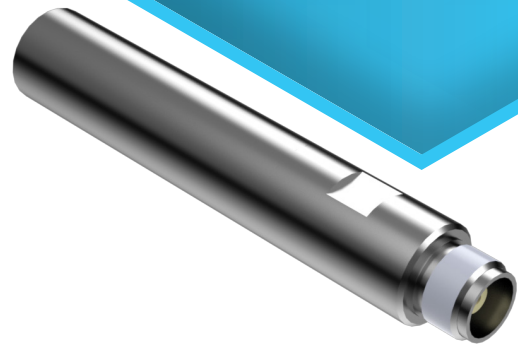


PROTK

# PNH 25<sup>TM</sup>

*Helium-3 Proportional Counter Tube*

Neutron sensitive proportional counter for  
real-time dose rate monitoring applications



## FEATURES

- Proportional counter sensitive to thermal neutrons
- With integrated source for continuous functional monitoring
- Compact and reliable design

## DESCRIPTION

The He-3 proportional counter tube PNH 25 is designed for measuring the thermal neutron flux density. Its compact and robust design makes it suitable for applications in an industrial environment and in nuclear facilities.

It has a connector compatible to the HN standard for easy connections. The detector has a neutron sensitivity of 1.3 cps/nv and is equipped with an internal check source that generates a live zero signal.

Apart from measuring the thermal neutron flux, if imbedded into a moderator, the He-3 proportional counter tube is optimally suited for real time ambient neutron dose rate monitoring, e.g. as part of Mirion's NIM 201K/203K, a product of the RAMSYS family.

# PNH 25 | HELIUM-3 PROPORTIONAL COUNTER TUBE

## MEASUREMENT PROPERTIES

- Detection: thermal neutrons
- Neutron sensitivity (thermal): 1.3 cps/nv  $\pm$  15%
- Intrinsic count rate from integrated check source: 0.3 ... 0.9 cps
- Measuring range: 3 ... 2E+5 nv (depending on the signal processing)

## ELECTRICAL CHARACTERISTICS

- Connector: HN compatible, female
- Nominal operating voltage: + 950 V
- Max. operating voltage: +1000 V
- Insulation resistance, at 20°C: > 5E+11  $\Omega$
- Capacitance: 8 pF

## MASS AND DIMENSIONS

- Mass: approx. 0.2 kg
- Outer diameter: 25 mm
- Total length: 144.5 mm
- Sensitive length: 40 mm

## ENVIRONMENTAL CONDITIONS

- Ambient Temperature:
  - Continuous operation: - 20°C ... 70°C
  - Storage: - 40°C ... 85°C
- Max. ambient pressure (absolute): 6E+5 Pa
- Ambient relative humidity, at 50°C: 90 %
- Total integrated dose (TID): 100 Gy

## DEGREES OF PROTECTION

- IP acc. to IEC 60529 (only if connected with sealing): IP 65
- IK acc. to IEC 62262 (except connector and welding): IK 07

## ACCESSORIES AND SIGNAL PROCESSING

- Please contact us for additional information on suitable:
  - Cables and connectors
  - Pre-amplifiers and signal processing units
  - Moderator assemblies for ambient dose rate monitoring

## VERSIONS

- For He-3 proportional counters with other dimensions, connector types and sensitivities please contact us

Featuring:

**MGPiH&B**

