

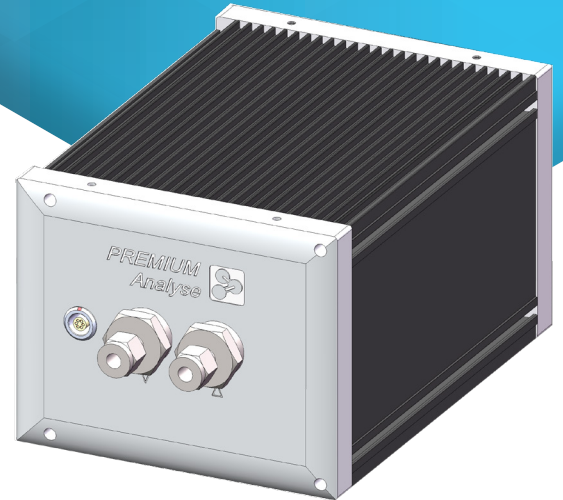


PREMIUM ANALYSE

DT D - BM8 - HE™

Highly Leak-resistant Tritium Detector

Ionization chamber for use in the field or radioprotection, environmental monitoring and process monitoring.



FEATURES

- **High performance**
 - Continuous measurement
 - Wide measurement range
 - Response time under 75 seconds
- **Simple**
 - Maintenance-free
 - Quick and easy commissioning
- **Reliable**
 - Precise and stable
 - Highly leak-resistant

DESCRIPTION

The DT D - BM8 - HE is a medium-sized ionisation chamber (660 cc) detector providing a wide measurement range from 3.2 kBq/m³ (86 nCi/m³) to 3.2 TBq/m³ (86 Ci/m³).

This robustly-housed detector is adapted for the measurement of all ranges of activity.

Thanks to its high leak-tightness it is completely adapted to the measurement of high activities without risk of potential leak.

The detector can be connected to a DT ionix 3 touchscreen Human Machine Interface that can be installed several hundred meters away from the detector, it benefits from the most advanced features such as data extraction via USB, Modbus communication dry contact outputs...

DT D - BM8 - HE | HIGHLY LEAK-RESISTANT TRITIUM DETECTOR

GENERAL CHARACTERISTICS

- Dimensions 140 x 111 x 197 mm (w x h x d)
 - Weight env. 4 kg
 - Power supply 9-36VDC, 300mA
 - Power supply connector baseplate LEMO ENB. 1B.304.CLL
 - CAN Connector baseplate LEMO ENG. 1B.304.CLL
 - Radon compensation dynamic with digital filtering
- Delivered with certificate of conformity

IONIZATION CHAMBER

- Material 304L stainless steel electropolished
- Volume 660 cc
- Nominal flow 4 L/min
- Response coefficient 71 200 (Bq/m³)/fA
- Ionization voltage 160 VDC

PERFORMANCES (for tritium)

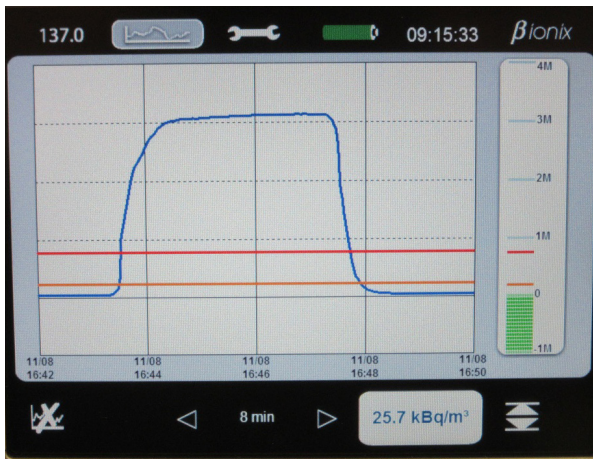
- Measurement range 3.2 kBq/m³ to 3.2 TBq/m³
86 nCi/m³ to 86 Ci/m³
- Limit of detection (2σ)
= decision threshold 10 kBq/m³ (0.27 μCi/m³)
- Limit of detection (4σ) 20 kBq/m³ (0.54 μCi/m³)
- Precision 5% of measurement ± 10 kBq/m³
± 0.27 μCi/m³
- Maximum deviation 10 kBq/m³ / year (0.27 μCi/m³)
- Noise (2σ) 10 kBq/m³ (0.27 μCi/m³)
- Response time < 75 sec at 90% of step

OPERATING CONDITIONS

- Temperature of use: +0°C to +40°C (+32°F to +104°F)
- Influence of temperature: 0.3% /°C for a variation of ambient temperature < 3°C / hour
- Humidity: from 5 to 95% relative
- Influence of humidity: ± 1 % of the measurement from 10 to 90% relative humidity
- Influence of atmospheric pressure: 0.1 %/mbar, hence ± 5 % of the measurement from 930 - 1030 mbar



Leak rate < 1 .10⁻⁹ mbar.L.s⁻¹ (He)



Response to a 3 MBq/m³ (81 μCi/m³) gas injection

PREMIUM
Analyse

always one idea ahead

activity measurement
β
Kr⁸¹ Xe
Rn²²² Tl²⁰⁸ Tl²⁰⁶
Tritium

Test report
DT D - BM8 - HE # XXX

Laboratoire d'essais LAB IONIX
2 A.C. Eurocom 05 Ile Sud
9, rue de la Fontaine Chaudron
57140 NORROY LE VENEUR
tél. +33 (0)3 87 51 31 75
fax +33 (0)3 87 51 31 74
www.premium-analyse.fr

Mirion Technologies Premium Analyse SAS - SAS au capital de 100 000€ - RCS MET 11 414 979 336 - SIRET 414 979 336 00024 - APE 26201 - N°A 89 56 414 979 336

Calibration reports available, gas calibration made upon request

CONTACT US

Mirion Technologies (Premium Analyse)
Phone: +33 (0)3 87 51 31 75
Email: contact@premium-analyse.fr

