



β activity measurement inline

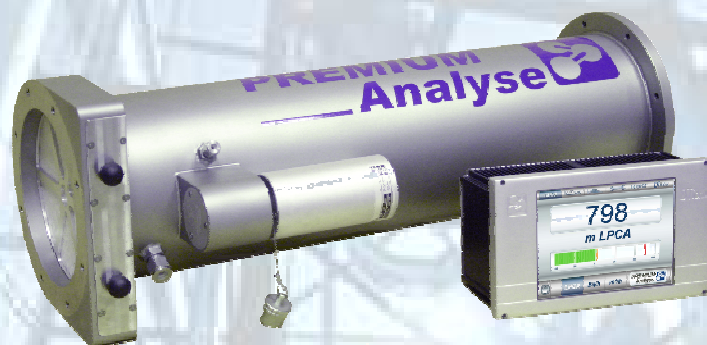
XPR 80

The new **ionization chamber XPR 80** is intended to the β measurement activity inline.

The **XPR 80** is notably innovative by its compactness and its equipment:

It has a **particles interchangeable filter**, as well as a **heating system gas** which avoids the condensation phenomenon. The XPR 80 could also integrate also an **air flow measurement** for the activity calculation.

Associated with the fixed **DT ionix HMI**, which can be fixed hundred meters away, it fully take profit of it all capacities, as well as the differential measurement, activity integration according the air flow, graphics charts, Data storage, Alarm levels,...



Applications

Environment Monitoring

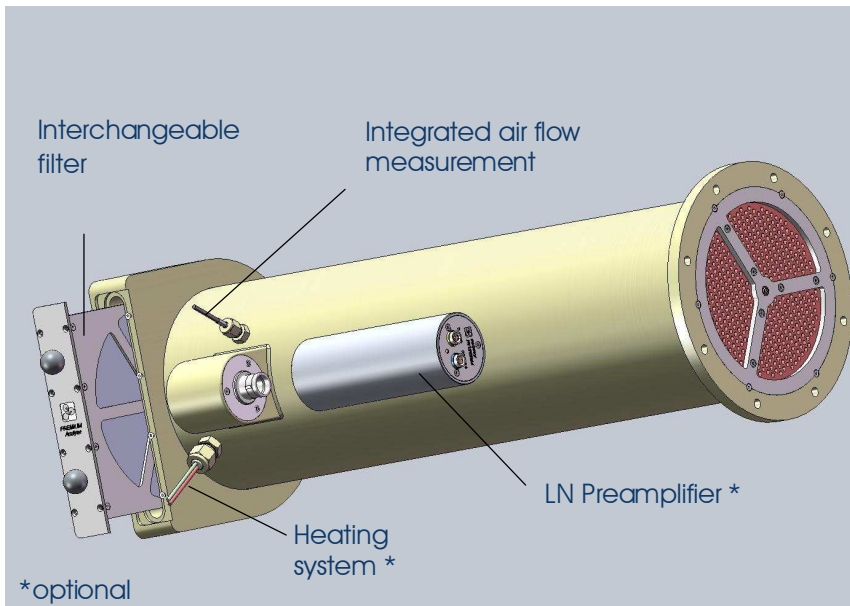
Process Control

Radioprotection

- ✓ **SENSITIVITY**
Tritium from 2.5 kBq/m³
- ✓ **SPEED**
Response time < 20 sec
- ✓ **MODULARITY**
Ø 215 mm x width 626 mm
Modular electronic
Inline implementation
- ✓ **ACCURATE**
0.5 % of measurement +/- 0.2 fA



Technical specifications



- size Ø 215 mm x width 626 mm (excluding electrical connectors)
- Inline Implementation by mounting flange Ø 215 mm with 8 tapping M8 out of axe on Ø 194 mm
- material stainless chamber AISI 304L electro polished
- ionization volume 8 liters
- nominal air flow 3 to 5 m3/h
- gas filter interchangeable particles filter
- gas heating system heating coaxial resistance
- air flow measurement omnidirectional sensor TSI 75 mm
- preamplifier connector type LEMO FAG.4B.824.CLA5
- ionization voltage 250 VDC

PERFORMANCES

- response factor Tritium 5 500 (Bq/m3)/fA
- Krypton 611 (Bq/m3)/fA
- Radon 8.60 (Bq/m3)/fA
- offset <0.1 fA
- noise <0.1 fA
- response time <20s. to 90%

MEASUREMENT RANGE

- From 2.5 kBq/m3 Tritium
- 270 Bq/m3 Krypton
- 3.9 Bq/m3 Radon

Preamplifier ref. DT P-LN 1A7

- ionization voltage 150 VDC
- decades 4
- measurement range from 0.2 fA to 400nA
- resolution 30 aA
- accuracy 0.5 % measurement +/- 0.2 fA
- stability 0.3 fA / year
- temperature influence 0.5 fA or 0.1 % measurement between -5&40°C
- size Ø 60 mm x width 160 mm
- weight 800 g
- power supply from 9 to 36 VDC
- humidity without influence from 5 to 95 % rel.
- sensor connector type LEMO EGG.4B.824.CLL5
- power supply type connector LEMO EXG.1B.302.HLN
- measurement type signals connectors LEMO EXG.4B.302.HLN

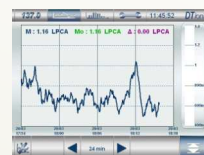
Associated Device : DT ionix HMI



digital



graphics charts



alarms levels settings



The **DT ionix** HMI is intended to the electronic treatment and to the signals management of Tritium sensors **MLB**, **EXP** and **XPR** after acquisition and digitization by one or two preamplifiers.

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