

*tritium online
analyzer*

DTionix



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β activity measurement



The **DT ionix** analyzer, designed with CEA Valduc, is able to measure online and in real time the activity of Tritium in air, or other Beta gases (Kr85, Xe133, C14,...).

Due to a large measurement range, an ultra high sensitivity and a dual ionization chamber, the **DT ionix** is the perfect tool for your applications of radioprotection, environment survey and process control.

This quality is obtained by the complete expertise of our manufacturing process : ultra low current electronic device, feedthrough seals, ionization chamber.

benefits

✓ **advanced capabilities**

calculation of the activity, results displayed in digital and graphic mode on a coloured touch screen, dual measurement for gamma compensation.

✓ **large measurement range**

from 2500 Bq/m³ to 800 TBq/m³, automatic range switching, choice of the units LPCA, LDCA or Bq/m³...(3 units among 15 possibilities).

✓ **full digital technology**

very high accuracy, long term stability, ultra high sensitivity, fast response.

✓ **easy to use**

factory calibration, plug and play, very intuitive navigation menu, MODBUS / TCP-IP network control.

✓ **compatible with existing installations**

analyzer compatible with all existing ionization chambers : GCC type and other.

capabilities



Adapter for existing ionization chambers

Ionization chamber :
no drift, no noise, very fast response

Full digital high sensitivity preamplifier

Straight or multi directional feedthrough seals for glove box :
noise < 0,2 fA, helium proof

Flanged feedthrough seal for process mounting

Max distance = 1200 m

Graphic display with intuitive navigation menu. Display of the mean and max values, zoom

Plug-in unit for processing and display of the results
Digital display of activity. Bargraph with alarm levels

Configuration of MODBUS interface, of alarms 3, 4 and of alarm relay

Settings of alarms 1, 2 and status alarm :
test function, handling...

technical specifications

Measurement range	From 2500 Bq/m ³ to 800 TBq/m ³ (depends on preamplifier)
Decades	5 or 8
Sensitivity	3 x 10 ⁻¹⁹ A
Accuracy	+/- 1 %
Stability	10 ⁻¹⁶ A / year
Response time	90 % of final value reached within 5 seconds
Operating temperature range	From -5 °C to +40 °C
Operating humidity range	From 5 to 95 %
Power supply	230 VAC - 50/60 Hz - 100W
Communication distance	Max. 1200 m between preamplifier and electronic display
Auto control	Internal survey of temperature and voltages
Outputs	2 x 4-20 mA, Modbus / TCP-IP interface
Alarm outputs	4 level alarms + 1 status alarm
Display	Coloured touch screen, digital and graphic display
Data storage	On Compact Flash - capacity : 32 days of data