Model 1925-PR Tritium Heavy Water Leak Detector

This monitor has been designed for real time low-level detection of tritium in water in the industrial environment of nuclear power plants. Low MDA, reliability, ruggedness (suitable for HWR, PWR, BWR) and simplicity of operation is what sets this monitor apart from laboratory type of the equipment. The initial purpose of the Model 1925 series was to detect the leak of heavy water in nuclear power plants that utilize CANDU reactors; however, it can be used for other purposes such as monitoring changes in tritium content of ground water, drinking water, and waste water.

Minimum Detectable Activity

The unit detects tritium decay by extracting T2 and H2 from the water, then making sensitive measurement with matched gas flow proportional counters. To minimize cosmic and gamma radiation effects, optional 1/2" lead shielding provide for low background noise. MDA is 3.7kBq/L.

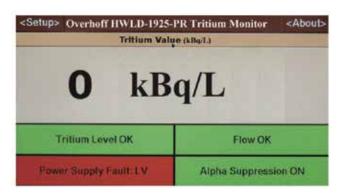
Response Time

The unit is equipped with up to 6 inputs for sampling 6 individual lines. The response time from when sample enters the system until the unit starts to respond is 3 minutes and in 9 minutes the full value of tritium concentration in the sample is displayed on the screen. Each sample line is sampled for 10 minutes so that the effect of residual activity from the previous line is minimized.

Integrated Computer, Display, and Software

Equipped with a fully-integrated computer, this smart instrument logs all data points on an insertable USB flash drive. Data communication to external programs is available via TCP/IP. Standard data output is USB and RJ-45 with an optional 4-20 mA. Alarm relay connections are in- cluded on the back panel.

Custom software allows the user to adjust several of the measurement parameters, such as: units of measurement, alarm limits, flow rate for totalizing, among others.





Highly Sensitivite to 1 kBq/L for Tritium

in water

Smart Electronics Onboard computer,

Custom software, Internal data-logging

Gamma Compensated Automatic Gamma

Background subtract

Ease of Operation No LSC fluid needed

No liquid mixed waste

No Zero Drift Long term zero stability

Fast Response 3 min, initial value

9 min. full value

The Overhoff Model 1925-PR Heavy Water Leak Detector utilizes cutting-edge proportional counting technology to provide a smart instrument with unequaled performance in sensitivity, stability, ease of operation, and data acquisition/analysis.





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