

**Calculated parameter**  
**Detector's output parameter**  
**Constant**

**Dual-flow-loop two-filter  
<sup>222</sup>Rn Detector**  
(30 min resolution)

*LLD (scintillation counts)*  
*ULD (noise counts)*  
*External Flow (L min<sup>-1</sup>)*  
*Internal Flow (m s<sup>-1</sup>)*  
*Detector Temperature (°C)*  
*Detector Pressure (hPa)*  
*Detector Relative Humidity (%)*  
*Calibration Coefficient*  
*Background Coefficient*  
**Decay Constant (s<sup>-1</sup>)**  
**Standard Temperature (288.15 K)**  
**Standard Pressure (101325 Pa)**

*Raw LLD*  
*External Flow (L min<sup>-1</sup>)*  
*Internal Flow (m s<sup>-1</sup>)*  
*Detector Temp. (K)*  
**Detector Size,**  
**Delay Volume**  
**Screen Efficiency (0.95)**  
**Plate-out Constant (1/180 s<sup>-1</sup>)**  
**Delay Time (10 s)**  
**Decay Constant**  
**6-month interpolated calibration**  
**6-month interpolated background**

- Uncertainties**
- Individual LLD measurement (Pois(x))
    - External Flow (2 %)
    - Internal Flow (20 %)
    - Screen Efficiency (5 %)
    - Plate-out Constant (2 %)
    - Delay Time (1 %)
  - Calibration coefficient (5 %)

**Deconvolved time series  
of <sup>222</sup>Rn conc. (Bq m<sup>-3</sup>)**

**Standard Temp. (K)**  
**Standard Press. (hPa)**  
*Detector Temp. (K)*  
*Detector Press. (hPa)*

**Deconvolved time series of  
<sup>222</sup>Rn conc. (STP Bq m<sup>-3</sup>)**

**BEST ESTIMATE  
of atmospheric <sup>222</sup>Rn activity  
concentration.**