

Specification- 606-651652

portable tritium in air discriminating monitor

Performance

- **Sensitivity:** Better than $1\mu\text{Ci}/\text{m}^3$
- **Measuring range:** $1\mu\text{Ci}/\text{m}^3$ to $200,000\mu\text{Ci}/\text{m}^3$
- **Accuracy:** $1\mu\text{Ci}/\text{m}^3$ from 1 to $100\mu\text{Ci}/\text{m}^3$, < 1% from 100 to $200,000\mu\text{Ci}/\text{m}^3$
- **HTO & $^3\text{H}_2$ discrimination / noble gas compensation:** Whole measuring range with dryer 651 connected
- **Total tritium, tritium water HTO & elemental $^3\text{H}_2$ readings:** Extra dryer 651 & catalyst converter tube - model 651652 assembly
- **Flow rate:** Up to 1.5L/Min, KNF long life pump
- **Response time:** < 10S for more than 90% reading
- **Gamma compensation:** Whole measuring range compensation < $10\mu\text{Ci}/\text{m}^3$ at 10mR/hr compensation up to 100mR/hr
- **Gamma measurement:** 0.1mR/Hr to 10R/Hr
- **Zero stability / long time drift:** $\pm 2\mu\text{Ci}/\text{m}^3$ per 30 days
- **Temperature drift:** $\pm 2\mu\text{Ci}/\text{m}^3$ or less, for 0 to 50 °C
- **Noble gas compensation ratio:** > 150:1
- **Radon compensation:** Via software discrimination and elimination
- **Operation:** Real time measuring & alarm control

Structure:

- **Ion chamber:** 4 chambers, 2 for measuring, 2 for compensation. Measuring volume: 330cc compensation volume: 330cc
- **Ion trap:** Yes, built-in for each chamber
- **Ion chamber purging:** Yes, with cartridge heater
- **Display:** 2.8" TFT LCD, touch screen

Output and communication:

- **Linear analog output:** 0.5 to 3.3V for 0 to $2800\mu\text{Ci}/\text{m}^3$
- **Logarithm output:** 0 to 2.65V for 1 to $200,000\mu\text{Ci}/\text{m}^3$
- **Communication:** RS232 default
- **Audio and visual alarm:** Low and high alarm, less than 30S

- **Alarm relay output:** Contact output for remote control
- **Data logging:** Yes, all the readings are time-stamped and logged into 512kbytes EEPROM

Power, operational conditions and dimension:

- Power consumption: <130mA powered by 12 VDC external power supply without heater
<350mA powered by two size-D batteries, 25 hours operation
<350mA powered by two size-D NiMH rechargeable batteries capacity 10AmpHr, 15 hrs operation
- Warm-up time: no need
- Operational humidity: 95%RH
- Operational temperature: 0°C to 50°C,
The pump's rated performance might be affected beyond this range
- Dimension: 4.5"(W)X7"(L)x7"(H) for 606
& 11"(W)X6"(L)X4.5"(H) for 651652
- Weight: 7Kgs