

Tritium -C-14 Survey Meter

Model Tri-Cair A, B, Select

氚&C-14 测量仪，型号 Tri-Cair A, B, Select

FEATURES: 产品特点

- C-14 and T₂O Modes-two channel measurement switch selectable.
C-14 和氚-两通道测量开关选择
- High Sensitivity- to 5 $\mu\text{Ci}/\text{m}^3$ (0.5DAC) H-3
高灵敏度-氚测到 5 $\mu\text{Ci}/\text{m}^3$ (0.5DAC)
- Fast Response-15 second time constant
快速反应-15 秒时间常数
- Response to Radon-suppression circuit ensures noise free operation
对氡响应—抑制电路确保零噪音操作
- No Zero Drift- better than 1 $\mu\text{Ci}/\text{m}^3$
无零点漂移—优于 1 $\mu\text{Ci}/\text{m}^3$
- Rapid Warm Up- less than 30 seconds.
快速预热-少于 30 秒

The TriCair A,B, Select can be configured as “sniffer” to provide real-time indication of C-14 And T₂O concentrations allows the user to quickly identify airborne presence of these 2 low energy Beta emitters.

型号 TriCair A,B, Select 可被配置为“嗅探器”提供实时 C-14 和氚浓度指示，以便用户快速识别这两个低能 β 发射体在空气中存在。

The Overhoff TriCair A,B, Select Tritium and C-14 Detector has the unique ability to monitor for tritium compounds and airborne C-14 in real time while providing gamma compensation. The two measurement channels, ¹⁴CO₂ and ³H appear on a single digital display.

Overhoff 产品 TriCair A,B, Select 氚和碳-14 探测器有独特的能力在提供 γ 补偿同时实时监测氚化合物和气溶胶 C-14，两个测量道 ¹⁴CO₂ 和 ³H 显示在同一块数字显示屏上。

The required radiological protection for Tritium compounds is different than that for Carbon-14. The presence of C-14 or Tritium in the working environment may be an indication of a leak in the containment. Knowing this the user of the TriCair A, B, Select can rapidly locate the point of release and more efficiently secure the source of leakage.

对氚化合物需要的放射保护不同于 C-14。工作场所出现 C-14 或氚可能预示着污染泄露。了解这一点，TriCair A, B, Select 的用户可快速锁定漏点，更有效地确保泄漏源的安全。

SENSITIVITY: 灵敏度

The sensitivity of the TriCair A, B, Select is better than 5 $\mu\text{Ci}/\text{m}^3$ (0.5DAC) for T₂O. The sensitivity to C-14 is better than 6 $\mu\text{Ci}/\text{m}^3$

对于 T₂O 灵敏度优于 5 $\mu\text{Ci}/\text{m}^3$ (0.5DAC)，对于 C-14 优于 6 $\mu\text{Ci}/\text{m}^3$

RADON INTERFERENCE, NOISE RESPONSE: 氡干扰，噪音响应

Unambiguous measurement of very low tritium and C-14 levels requires a monitor that can ignore ambient radon. The TriCair A, B, Select incorporates a radon suppression circuit and therefore produces accurate and drift-free readings.

精确测量非常低值氚和 C-14 要求监测器能够忽略周围氡。TriCair A, B, Select 使用氡抑制电路，因此产生精确、读数无稳定。

FAST RESPONSE: 快速响应

Exceptionally rapid response is due to its unique ability to ignore radon. The instrument has an electronic time constant of only 10 seconds, a pneumatic time constant of about 12 seconds, for an overall time constant of only 15 seconds. Meter readings will reach 90% of final value with 30 seconds to a step response of aspirated tritium or C-14.

异常快速响应源于其独特的忽略氡的能力，此仪器电子时间常数仅 10 秒，气动时间常数大约 12 秒，总时间常数仅 15 秒。仪器可在 30 秒内，达到最终测量值 90% 进入氚或 C-14 响应阶段。



FAST WARM UP< NO ZERO DRIFT: 快速预热<无零点漂移

After applying power, the initial transient “warm up “drift effects take less than a minute. Long-term drifts have been eliminated and manual zero adjustments are no longer required.

接通电源之后，初始瞬时“预热”漂移影响少于1分钟，长时漂移已被清除，手动零点调整不再需要。

DESICCANT COLUMN: 干燥剂柱

A desiccant column prevent the tritium oxide from entering the C-14 Ion chamber. The indicating type desiccant changes color from blue to pink when it is exhausted. Regeneration will restore the drying capacity.

干燥剂柱防止氧化氚进入 C-14 离子室。指示型干燥剂变色，当耗尽时从蓝色变为粉色。再生后可恢复干燥能力

GMMA COMPENSATION: 伽马补偿

The instrument has active gamma compensation with 2x2 ionization chamber geometry.

此仪器有主动伽马补偿，带 2x2 电离室。



C14 - T2 SWITCH



DESICCANT CARTRIDGE

<u>Model</u>	<u>Tritium</u>	<u>Carbon-14</u>	<u>Organic Carbon-14</u>
TriCair-A	T ₂ O	¹⁴ CO ₂	-
TriCair-B	T ₂ O	-	Organic C-14
TriCair-Select	T ₂ O	¹⁴ CO ₂	Organic C-14



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Tritium_C-14 Survey Meter

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TRITIUM RANGE 氚量程	1-19,999 $\mu\text{Ci}/\text{m}^3$; basic sensitivity of the order of $5\mu\text{Ci}/\text{m}^3$ 1-19,999 $\mu\text{Ci}/\text{m}^3$, 基本灵敏度可达到 $5\mu\text{Ci}/\text{m}^3$
CARBON-14 RANGE C-14 量程	1-19,999 $\mu\text{Ci}/\text{m}^3$; basic sensitivity of the order of $1.0\mu\text{Ci}/\text{m}^3$ 1-19,999 $\mu\text{Ci}/\text{m}^3$, 基本灵敏度可达到 $1.0\mu\text{Ci}/\text{m}^3$
DISPLAY 显示	0-19,999 digits, LCD panel meter 0-19,999 数字, LCD 面板显示
H3 AND C-14 MODES H ₃ 和 C-14 模式	Two channel measurement, switch selectable 两道测量, 开关选择
ACCURACY, SPAN 精度, 量程	$\pm 10\%$ of reading, $\pm 2\mu\text{Ci}/\text{m}^3$, whichever is greater 读数的 $\pm 10\%$, $\pm 2\mu\text{Ci}/\text{m}^3$ 以较大者为准
NOISE LEVEL 噪音值	$\pm 2\mu\text{Ci}/\text{m}^3$ (10 second electronic time constant) $\pm 2\mu\text{Ci}/\text{m}^3$ (10 秒电子时间常数)
ZERO STABILITY 零点稳定性	$\pm 2\mu\text{Ci}/\text{m}^3$ long term 长期 $\pm 2\mu\text{Ci}/\text{m}^3$
GAMMA COMPENSATION 伽马补偿	chambers in a side by side pattern reduce errors due to external gamma radiation 并列电离室模式由于外部伽马辐射减少误差
ALPHA PULSE SUPPRESSION	circuit provides recognition and cancellation of airborne radon noise spikes 30 seconds to reach 90% of final reading α 脉冲抑制电路提供了识别和消除气溶胶氡噪声尖峰 30 秒达到 90% 最终读数
RESPONSE RATE ALARM (ACOUSTIC) 报警响应	1. Ten position stepped attenuator set point for signal alarm $2-1,000\mu\text{Ci}/\text{m}^3$, steady tone. An off position is included. 2. Low flow produces an intermittent tone 3. Mute switch silences audible tone. 1. 10 位步进式衰减器设定信号报警 $2-1,000\mu\text{Ci}/\text{m}^3$, 稳定音, 包括“关” 2. 低流触发间歇音 3. 静音开关关闭声音。
ALARM (VISUAL) 报警 (视觉)	Signal level: red LED-low flow: yellow LED, Low battery: flashing red LED 信号值: 红 LED, 低流: 黄 LED, 低电池: 红色闪烁 LED
EXTERNAL CONNECTIONS 外部连接	Mini DIN plug for output signal, and for alarms 迷你 DIN 插头用于信号输出和报警
ION CHAMBER VOLUME 电离室容量	effective volume: 200cm^3 port to port volume: 660cm^3 有效容量: 200cm^3 , 口对口容量: 660cm^3
DUST FILTER 灰尘过滤网	HEPA, in-line disposable cartridge, Pall P/N 12082 HEPA, 在线 一次性滤芯, Pall P/N 12082
PUMP 泵	internal rotary vane pump 内部旋片泵
FLOW RATE 流量	nominally 1.5-2 LPM 正常 1.5-2 LPM



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ENVIRONMENTAL
环境

0°C to +50°C, 0-95% relative humidity
0°C to +50°C, 0-95% 相对湿度

BATTERIES
电池

2 "D" size NiMH batteries External jack for supplementary power input and charging
2节 "D" 号 NiMH 电池, 外部辅助电源输入和充电插孔

POWER CONVERTER
电源转换器

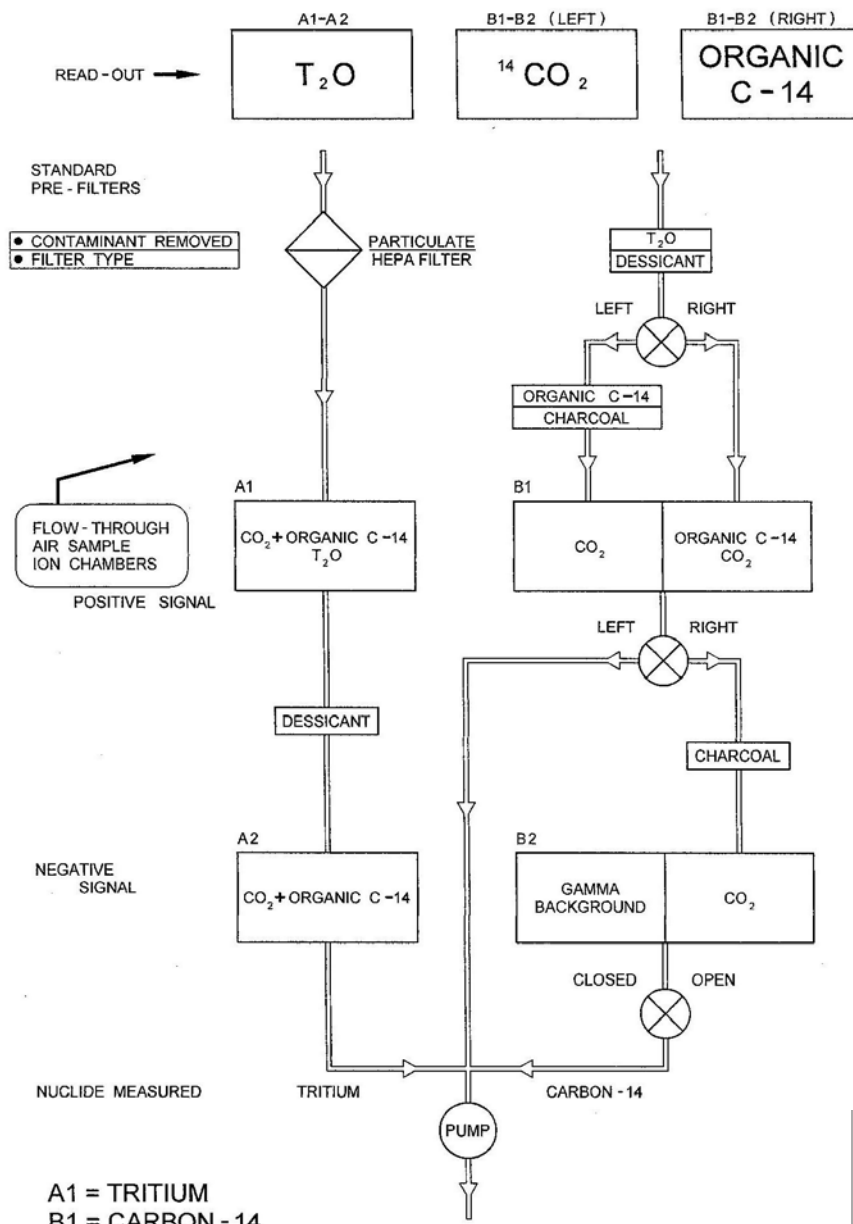
100-240 VAC, 50/60 Hz, 25A to 3.3 Vdc @ 1.2A 5.5m O.D.x2.1mm I. D.
plug, center pin is positive
从 100-240 VAC, 50/60 Hz, 25A-.3 Vdc @ 1.2A 外径 5.5m.x 内径 2.1mm
插孔, 中间线为正极

SIZE AND WEIGHT
尺寸和重量

7.6"(193mm)L x 5.2" (132mm)W x 6.9" (175mm) H excluding handle, 6.5lbs(3kg)
7.6"(193mm)长 x 5.2" (132mm)宽 x 6.9" (175mm) 高, 不包括把手 6.5lbs(3kg)

DESICCANT COLUMN
干燥柱

Clear polycarbonate cartridge of indication desiccant
透明的聚碳酸酯盒指示干燥剂



DWG NO.

B-14143 REVISION B



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