

# ULTRA SENSITIVE PORTABLE TRITIUM MONITORS

## 极灵敏便携式氚监测器

**MODEL SP1400DD**

**型号SP1400DD**

**ULTRA HIGH SENSITIVITY, FAST RESPONSE TO 1.0 $\mu$ Ci/m<sup>3</sup>.**

**极高灵敏度，快速响应到1.0 $\mu$ Ci/m<sup>3</sup>**

True, unambiguous measurement to low levels combined with a fast response (10 sec. electronic time constant), not matched by any other portable tritium survey monitor.

实际情况是，精确低限值测量并且快速响应（电子时间常数10秒）是任何其它便携式氚监测器做不到的。

### INSTANTANEOUS WARM UP

瞬时预热

The instrument will generally settle to 1.0 $\mu$ Ci/m<sup>3</sup> within one minute after application of power.

接通电源后一分钟仪器一般来说将稳定到 1.0 $\mu$ Ci/m<sup>3</sup>

### NO LONG TERM DRIFT

无长期漂移

The instrument is free from long term drift by using a highly stable electrometer design.

通过使用高稳定静电计设计，仪器无长期漂移

### SMALL IONIZATION CHAMBERS, EFFECTIVE GAMMA COMPENSATION

小巧电离室，有效伽马补偿

Dual 1400 cc ionization chambers keep the overall instrument size and weight to a manageable size.

双电离室1400cc电离室将整个仪器尺寸和重量控制在可控范围内

### HEAVY DUTY PUMP

耐用泵

A generously sized pump provides up to 4 volume changes per minute to ensure a fast overall measurement response.

一个一般容量的泵每分钟提供了4种容量变化以确保快速整体测量反应。

### DIGITAL DISPLAY

数字显示

The SP1400 series uses a 4-1/2 digit LCD display  
SP1400使用4-1/2数字LCD显示



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SP1400DD

## TRULY PORTABLE

### 真正便携

A shoulder strap frees both hands for directing the sniffer hose when the instrument is used for leak detection, or similar purposes.

肩背带解放了双手以便在探测泄漏或类似目的时操作嗅探器软管

## DISPOSABLE IN LINE FILTER

### 一次性在线过滤网

A small throw away cartridge filter fits directly onto the plastic sniffer hose, ensuring that the ionization chambers are protected against debris and dust.

过滤器小巧，使用后即扔掉，直接安装在塑料嗅探器软管上，确保电离室免受碎片和尘土的影响。

## SUPPLIED COMPLETE WITH WALL CHARGER

### 配有壁式充电器

A wall charger for NiMH batteries maintains full battery charge under all instrument operating conditions.

壁式镍氢电池充电器在仪器全工作状态下保持电池完全充电。

## HTO (DTO) MEASUREMENTS

### 氚水 (DTO) 测量

By interposing a desiccant cartridge between the two ionization chambers, the monitor will respond only to HTO (DTO), even in the presence of other radioactive gases as well as background gamma radiation.

通过在两个电离室间插入一个干燥剂袋，监测器将只对HTO (DTO) 反应，甚至在其他辐射气体，伽马辐射本底出现的情况下也如此。

## SEMI PERMANENT AREA/STACK MONITOR

### 半永久区域/烟囱道监测器

The sensitivity of the SP1400 exceeds that of most "fixed" monitors, it can therefore be used for similar duty. The internal pump has been rated for 2000 hours MTBF. Model SP1400 can be used for area monitoring for several months at a time.

SP1400灵敏度超过大多数“固定式”监测器，因此能够用于相似的测量任务。内置泵无故障时间被定为2000小时。型号SP1400每次可以被用作区域监测器可达几个月。

## REMOTE FACILITIES

### 远程装置

A multi pin connector on the front plate of the instrument has been provided for the connection to remote meter displays, alarms and chart recorders.

仪器前面板上的多针连接器已提供用于连接到远程仪表显示，报警和图表记录仪

## COVER WITH CARRYING HANDLE

### 带提手的盖子

A matching cover which attaches with two draw latches serves to stow the carrying strap, the sniffer hose and spare dust filters.

带两个扣锁的匹配的盖子用来堆放背带，嗅探器软管和备用滤网。



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# PORTABLE TRITIUM MONITOR SP1400DD

## SP1400DD SPECIFICATIONS

### TECHNICAL SPECIFICATIONS, micro Curie units of measure 技术规格, 测量单位-微居

Range 量程	Single Range 0 - 19,999 $\mu\text{Ci}/\text{m}^3$ 单量程0 - 19,999 $\mu\text{Ci}/\text{m}^3$
Display 显示	4 1/2 digit LCD display in steps of $1\mu\text{Ci}/\text{m}^3$ 4 ½数字 LCD显示, 最小显示单位 $1\mu\text{Ci}/\text{m}^3$
Stability 稳定性	0.5 $\mu\text{Ci}/\text{m}^3$ long term, for temperatures 0° C to 40° C 温度0° C -40° C范围时, 长期0.5 $\mu\text{Ci}/\text{m}^3$
Alarm (acoustic) 报警 (声音)	set point adjustment with a ten position attenuator RESET/ON/OFF toggle switch 带一个十位衰减器定点调节“重置/开/关”拨动开关
Interface 接口	connector for remote display or chart recorder, alarm output 连接器用于远程显示或图表记录器, 报警输出
Power 电源	6 D size batteries, NiMH, furnished with a detachable wall charger 6节D号电池, 镍氢, 配有可分离壁式充电器
Ionization Chambers 电离室	dual chambers, one chamber used for gamma compensation, volume 1400 $\text{cm}^3$ each, deep drawn aluminum 双室, 一个室用于伽马补偿, 容量每个1400 $\text{cm}^3$ 深拉铝
Pump 泵	brushless dc miniature pump for 4 to 6 volume changes per minute, ON - OFF switch 无刷直流微型泵每分钟4-6次体积变化. ON-OFF开关切换
Size 尺寸	Front panel approximately 5" x 13", depth 12" including carrying handle 前板接近5" x 13", 高12", 包括提手
Weight 重量	16 lbs 16磅
Accessories 配件	carrying strap; sniffer hose; dust filter; wall charger 背带, 嗅探器软管, 灰尘滤网, 壁式充电器



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# PORTABLE TRITIUM MONITOR SP1400DD

SP1400DD  
SPECIFICATIONS

## TECHNICAL SPECIFICATIONS, mega Becquerel units of measure 技术规格, 测量单位-兆贝克

Range 量程	Single Range 0.01 - 199.99MBq/m <sup>3</sup> 单量程0.01 - 199.99MBq/m <sup>3</sup>
Display 显示	4 1/2 digit LCD display in steps of 0.01MBq/m <sup>3</sup> 4 ½数字 LCD显示
Stability 稳定性	0.5 μCi/m <sup>3</sup> long term, for temperatures 0° C to 40° C 温度0° C -40° C范围时, 长期0.5 μCi/m <sup>3</sup>
Alarm 报警	set point adjustment with a ten position attenuator RESET/ON/OFF toggle switch 带一个十位衰减器定点调节“重置/开/关”拨动开关
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Power 电源	6 D size batteries, NiMH, furnished with a detachable wall charger 6节D号电池, 镍氢, 配有可分离壁式充电器
Ionization Chambers 电离室	dual chambers, one chamber used for gamma compensation, volume 1400 cm <sup>3</sup> each, deep drawn aluminum 双电离室, 一个室用于伽马补偿, 容量每个1400cm <sup>3</sup> , 材料深拉铝
Pump 泵	brushless dc miniature pump for 4 to 6 volume changes per minute, ON - OFF switch 无刷直流微型泵每分钟4-6次体积变化 On-OFF开关
Size 尺寸	front panel approximately 5" x 13", depth 12" including carrying handle 前板接近5" x 13", 高12", 包括提手
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**PARTS LIST FOR MODEL SP1400DD TRITIUM MONITOR**  
**SP1400DD氚监测器备件一览表**

**SP1400DD**  
**PARTS LIST**

<u>Qty Req'd</u>	<u>Part No.</u>	
		<b><u>Consumables</u></b>
1	BP06CNNNF28VC3	Pump
1	DMO-742	Panel Meter
1	FW7304/10	Battery Charger
1	1020421	Battery Cover Gasket
1	1020415-M	Ionization Chamber Measurement Side
1	TCCM773	Shoulder Strap
1	MS3116F14-15P	remote output connector plug
1	1020423	calibration control
		cover <b><u>Consumables</u></b>
1	12082	Dust Filter (3 ea. per pkg)
1	GP450-DHC	Primary Battery (6 ea. per pkg)
1	415	Polarizing Battery (4 ea. per pkg)
1	5233K53	Sniffer Hose, 10 ft
		<b><u>Accessories</u></b>
1	1020216-1T	Calibration Resistor Low Range



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