



MODEL SP1400DD ULTRA-SENSITIVE PORTABLE TRITIUM IN AIR MONITOR

The **Model SP1400DD** is Overhoff's most sensitive portable tritium in air monitor. Featuring dual 1400cc ion chambers, this instrument can accurately measure down to $1 \mu\text{Ci}/\text{m}^3$ ($0.01 \text{ MBq}/\text{m}^3$) with better than $0.5 \mu\text{Ci}/\text{m}^3$ long-term stability.



HIGH SENSITIVITY, FAST RESPONSE TO $1 \mu\text{Ci}/\text{m}^3$ ($0.01 \text{ MBq}/\text{m}^3$)

True, unambiguous low level tritium measurement combined with a fast response, not matched by any other portable tritium survey monitor.

DUAL IONIZATION CHAMBERS FOR EFFECTIVE GAMMA COMPENSATION

Dual 1400 cc ionization chambers keep the overall instrument size and weight to a manageable size while achieving maximum sensitivity and stability. Virtually no offset in gamma fields up to $10 \text{ mR}/\text{h}$.

TRULY PORTABLE

A shoulder strap frees both hands for directing the sniffer hose when the instrument is used for leak detection, or similar purposes. A matching cover which attaches with two draw latches serves to stow the carrying strap, the sniffer hose, and spare dust filters while making it convenient for carrying the instrument to location.

SUPPLIED COMPLETE WITH WALL CHARGER

An external power supply for 24/7 operation or as a charger for NiMH batteries and maintains full battery charge under all instrument operating conditions.

REMOTE CONNECTIONS

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.

FAST WARM UP AND DRIFT-FREE ELECTRONICS

The instrument will settle to $1 \mu\text{Ci}/\text{m}^3$ within one minute after power-up. The instrument is free from long term drift by using a highly stable electrometer design.

Ultra-Sensitive	$1 \mu\text{Ci}/\text{m}^3$ ($0.01 \text{ MBq}/\text{m}^3$)
Gamma Compensated	virtually no offset in $10 \text{ mR}/\text{h}$ fields
Response To Radon	suppression circuit ensures noise free operation
No Zero Drift	long term zero stability better than $0.5 \mu\text{Ci}/\text{m}^3$
Rapid Warm Up	less than 60 seconds

The Overhoff Technology Model **SP1400DD** is the most sensitive and stable portable tritium in air monitor on the market.

SEMI-PERMANENT AREA MONITOR WITH HEAVY DUTY PUMP	
The sensitivity of the SP1400DD exceeds that of most "fixed" monitors, it can therefore be used for similar duty. The internal heavy-duty pump provides up to 4 volume changes per minute to ensure a fast overall response and has been rated for 2000 hours MTBF. It can be used for area monitoring for several months at a time.	

Overhoff Technology Corporation

1160 U.S. Highway 50, Milford, Ohio, 45150-9705 USA

Telephone: 513 248 2400 Fax: 513 248 2402

Email: sales@overhoff.com www.overhoff.com



TECHNICAL SPECIFICATIONS

MEASUREMENT RANGE	Available in two measurement ranges: a) 1 to 19,999 $\mu\text{Ci}/\text{m}^3$ b) 0.01 to 199.99 MBq/m^3
ACCURACY, SPAN	$\pm 10\%$ of reading, $\pm 1 \mu\text{Ci}/\text{m}^3$ (0.04 MBq/m^3), whichever is greater
NOISE LEVEL	$\pm 0.5 \mu\text{Ci}/\text{m}^3$ (0.02 MBq/m^3), 1 S.D.
ZERO STABILITY	after 60 seconds (or less) warm up, zero drift less than $\pm 0.5 \mu\text{Ci}/\text{m}^3$ (0.02 MBq/m^3)
GAMMA COMPENSATION	sealed 1400cc ion chamber for gamma compensation
ALPHA PULSE SUPPRESSION	a circuit provides recognition and cancellation of undesirable noise spikes attributed to airborne radon
RESPONSE RATE	60 seconds to reach 90% of final reading
ALARM (ACOUSTIC)	1. Ten position stepped attenuator set point for signal alarm 2. RESET/ON/OFF Toggle Switch for alarm
ALARM (VISUAL)	signal level: red LED low battery: red LED
EXTERNAL CONNECTIONS	J1 Connector for remote display, chart recorder, or alarm output
IONIZATION CHAMBER VOLUME	effective measurement volume: 1400 cm^3
DUST FILTER	in-line disposable cartridge type
PUMP	internal heavy-duty brushless DC motor for 4 to 6 volume changes/min
ENVIRONMENTAL	0° C to +40° C, 20 - 90 % relative humidity non-condensing
BATTERIES	six "D" size NiMH batteries, furnished with a detachable wall charger
SIZE AND WEIGHT	front panel 5" x 13" with a depth of 12" including handle; Weight: 16 lbs
ACCESSORIES	carrying strap, sniffer hose, dust filter, wall charger

Released 10/22/20