

MODEL 347**LOW COST MONITOR FOR ULTRA SENSITIVE
DETECTION OF AIRBORNE RADIOACTIVE GASES
QUADRUPLE IONIZATION CHAMBERS FOR BEST
GAMMA COMPENSATION**

A low cost very high sensitivity general purpose monitor for reliable measurements to as low as $0.5 \mu\text{Ci}/\text{m}^3$ in the presence of significant external gamma fields.

OTC Model 347 tritium monitor will not respond to ambient radon, this instrument is fast, accurate and has long term zero stability.

This monitor is a simplified, lower cost, version of the 300 series instruments, but with a restricted number of available optional features.

The quadruple chambers are Kanne type arranged in a cruciform pattern.

A separately mounted pump system with HEPA and ULPA filters assures a sample free of particulates.

OPTIONAL EQUIPMENT AVAILABLE

Remote Alarm Units
Remote Meter Displays
Tritium Gas Calibrator
Calibration Resistor
4-20 mA Output
Logarithmic Output
RS232 Output



TECHNICAL SPECIFICATIONS

MEASUREMENT	Tritium in Air Concentration
RANGES	single, 0.1 to 1999.9 $\mu\text{Ci}/\text{m}^3$
DISPLAY	Digital Meter, 4½" digit LED
ACCURACY	$\pm 10\%$ of reading, $\pm 1 \mu\text{Ci}/\text{m}^3$, whichever is greater
STABILITY AND DRIFT LONG TERM	$\pm 1 \mu\text{Ci}/\text{m}^3$, ambient temperature
NOISE	$< 1 \mu\text{Ci}/\text{m}^3$, 2 sigma, with 30 second time constant
GAMMA COMPENSATION	second ionization chamber pair of equal volumes, mounted in cruciform pattern, serves to cancel effects of external gamma fields
RESPONSE RATE ELECTRONIC	two linear time constants, 30 seconds for $< 80 \mu\text{Ci}/\text{m}^3$ 3 seconds for $> 80 \mu\text{Ci}/\text{m}^3$
WARM-UP TIME	less than 5 minutes required for high voltage power supplies to stabilize
ALARM SYSTEM	single alarm, with set point adjustable from 1 to 1000 $\mu\text{Ci}/\text{m}^3$
IONIZATION CHAMBER VOLUME	measuring: 2900 cm^3 total wetted: 4000 cm^3
ENVIRONMENTAL	Storage Temperature: -40° C to +60° C Operating Temperature: 0° C to +50° C Humidity: 0 to 95 % RH non-condensing
PHYSICAL CABINET	Bench top, frame constructed of aluminum extrusions, front and rear panel
POWER	115 VAC or 240 VAC 50/60 Hz
DIMENSIONS	8.8" [223mm] H x 19.0" [483mm] W x 16.0" [406mm] D
WEIGHT	45 lbs [20.4 kg]
FLOWMETER	0 -10 LPM adjustable rotameter
DUST FILTER and PUMP	separately mounted
POWER	115 VAC or 240 VAC 50/60 Hz
DIMENSIONS	7.0" [178mm] H x 17.0" [432mm] W x 16.0" [406mm] D
WEIGHT	20 lbs [9.1 kg]



PARTS LIST FOR MODEL 347 TRITIUM MONITOR

<u>Qty Req'd</u>	<u>Part No.</u>	<u>Description</u>
1	VCO-201-E1	120VAC Pump
	or	or
1	VCO301-P2	240VAC Pump
1	803562	HEPA Filter Cartridge (pack of three)
1	CWFG01PLV	Ultra Pure Filter Element
1	2-231-S604-70	O-Ring for Filter Cover (pack of ten)
1	2-036-S613-60	O-Ring for Filter Housing (pack of ten)
1	RMA-21-SSV	Flow Meter
1	AP-141-12-1	Digital Panel Meter, 120VAC
	or	or
1	AP-141-12-2	Digital Panel Meter, 240VAC
1	A41-43-36	Mains Transformer
1	100251-ASSY	Main PCB Assembly for Model 347
1	100511-347	4-20mA Output & Logarithmic Converter Board
1	100512-347	RS232 Output Board
1	KL-701	Knob Lock for Compensation Control
1	MS91528-1N2B	Knob for Compensation Control
1	MDL-1/4	Fuse, 1/4 Amp (pack of 5)
1	17501	AC Power Cord (USA and Canada)