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IC-10

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ICRP-51 H*(10) Response available (IC-10A-P)

The IC10A is a rugged ion chamber detector designed for accurate and highly stable field measurements. The detector is used for measuring exposure rates of gamma, X-ray, and beta radiation over a wide range. Combined with the [RAM DA 2000](#) monitors, the IC10A makes an excellent choice for maintaining the highest safety standards in a wide variety of applications including, radiochemistry, nuclear medicine, transport and storage, radiotherapy, research laboratories and health physics.

The detector contains an ionization chamber and electronic circuits. The RAM DA 2000 monitor supplies power and the detector output is a square wave signal, with a frequency that is proportional to the measured field. The IC10 has two gain ranges and a special offset zeroing capability. Gain or offset can be controlled automatically or manually using the RAM DA 2000 monitor.



Specifications

Measuring Range:	1µSv/hr to 250mSv/hr (0.1 mR/hr to 25R/hr)	
Display Range:	1µSv/hr to 250mSv/hr (0.1 mR/hr to 25R/hr)	
Gamma Sensitivity:	0.1µSv/hr to 250mSv/hr (0.01 mR/hr to 25R/hr)	
Accuracy:	±15% of reading within measuring range	
Gamma Energy Dependence:	Better than ±20% at 20keV to 1.2MeV (related to ¹³⁷ Cs)	
Angular Dependence:	Less than ±5% (for ±120° of front direction, related to ¹³⁷ Cs)	
Ion Chamber Volume:	500 cc	
Chamber Wall and Cover Thickness:	300mg/cm ² (tissue equivalent)	
End Window Thickness:	7 mg/cm ²	
Response Time:	Scale	Time Range
	0.1µSv/hr to 10µSv/hr	12 sec low
	10µSv/hr to 100µSv/hr	8 sec low
	100µSv/hr to 2mSv/hr	4 sec low
	0.1mSv/hr to 220mSv/hr	2 sec high
Input Signals:	Offset/operation – control, High/low - range control	
Output Signals:	TTL pulses, Detector status: ID, chamber voltage malfunction	
Temperature Range:	Operation: -10°C to +50°C (15°F - 122°F), Storage: -20°C to +60°C (-5°F - 140°F)	
Humidity Range:	40% to 95% RH (non condensing)	
Dimensions:	Chamber: 11.7cm (4.6") length, 8.9cm (3.5") diameter Handle: 14.3cm (5.6") length, 5.2cm (2") diameter	
Weight:	470g (1lb)	
Chamber:	Polypropylene	
Handle:	Aluminum, splash proof.	
Chamber:	Polypropylene	
Max. cable length:	10 meters	

Ordering Information

IC-10A - Ion Chamber (Flat Response) detector #3-0070

IC-10X (for x-ray machines) detector #3-0070-02

Note: Specifications subject to change without notice.

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