

HIGH RANGE ION CHAMBER AREA MONITOR

Model ~ FIL-10K

FEATURES:

- 0.1 – 10,000 R/h (5 DECADES) STANDARD. (1mSv/h – 100 Sv/h)
- ON-LINE REAL-TIME MONITORING ALL PLUG-IN MODULAR
- HIGH RANGE GAMMA DETECTION
- LAM-10D-IC ELECTRONICS
- RACK MOUNTING OR CASE SINGLE OR MULTI-CHANNEL
- ION CHAMBER FOR EXCELLENT ENERGY RESPONSE
- LOCAL OR REMOTE MONITORING
- AC POWER WITH RECHARGEABLE BATTERY BACK UP & CHARGER
- HIGH LEVEL ALARM, SOLID STATE RELAY, NON-CONTACTING
- RS-232 COMPUTER INTERFACE
- MICROPROCESSOR BASED DATA MEASUREMENT AND DISPLAY



LAM-10D-IC ELECTRONICS
IP64

APPLICATION:

High Range Area monitor in and around nuclear reactors, hot cells, irradiators and other facilities handling radioactive materials or X-rays.

DESCRIPTION:

The **FIL-10K** High Range Area Radiation Monitor incorporates:

- Digital Alarm Ratemeter – MODEL ~ LAM-10D-IC
- Power Supply
- Alarm
- Electrometer & Reliable Ion Chamber.

Ion Chamber and circuit design prevent the system readings from falling even in very high fields.

Front panel controls allow the alarm set point to be displayed.

Alarm activation produces flashing red light on front panel and piercing intermittent 2000Hz tone.

DMU-100 Sensor Description:

Extremely high range capability of ion chamber detection system provides monitoring in hot cell or reactor components and dose rate measurements of irradiated objects can now be made easily and at the ranges called for.



DMU-100 SENSOR



TECHNICAL ASSOCIATES
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SPECIFICATIONS:

Detector:	DMU-100: Ion chamber detection system with extremely high range capability Sealed Air Ion Chamber, nominal 100 cc volume
Range:	0.1 – 10,000 R/h (5 decades) is standard. (1mSv/h – 100 Sv/h) Higher Ranges available: up to 1 mill R/h (10,000Sv/h) NOTE: Ion Chambers are best for high ranges.
Accuracy:	+/- 10% Full Scale
Time Constant:	2 Seconds fast, 12 seconds slow
MOSFET:	Prevents damage to MOSFET when coupling or decoupling detector system.
Electrometer:	Solid State MOSFET input
Dimensions:	8' long x 3-1/2" diameter (outer dimensions)
Environment:	
Temperature:	Operating range: 22° F – 149° F (-30° C - 65° C) Drift less than 0.4% per °C at room temperature.
Humidity:	0-95% non-condensing.

ELECTRONICS:

Model:	LAM-10D-IC OPTIONAL: FM-9W-HUB for central data access from multiple instrument locations
Digital Display:	Length = 6 digit rate, 8 digit total dose Other meter scale markings are available.
Controls:	Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.
Range Adjustable:	1 internal screwdriver adjust
Zero Adjust:	Knob
Alarm:	2000 Hz audio tone with audio "mute" switch + RED LIGHT, High current relay. 0-100% of full scale.
Data Output:	RS-232 standard computer interface.
Battery Back Up:	Lithium Battery Pack with built-in charger.
Battery Life:	100 Hours in Non Alarm Status 18 Hours in Alarm Status
Power:	AC 105-125 volts, 50-60 Hz (220 V optional)
Mounting:	Wall or bench mount for rack for electronics and detector.
Weight:	3 lbs. (1.4kg) including batteries and hardware, excluding probe.

OPTIONS:

- Multiple Channel Systems.
- Remote Alarm-Flasher-Howler
- **Construction:** NEMA-4X polycarbonate gasketed case: rugged and splash-proof.
- Remote Meter Readout with Alarm
- Data Archive & Retrieval
- Cable: 0-100 feet (30 meters)
- Read Out in SI units



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