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

DESCRIPTION:
The FIL-9DP Wide Range Area Radiation Monitor incorporates:
- Digital Alarm Ratemeter – MODEL ~ LAM-10D
- Power Supply
- Alarm
- Electrometer & Reliable Ion Chamber.

Because of the plug-in modular construction, additional channels or functions can be added.

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.

OPTIONAL: Relay is also closed (or opened) for activation of remote alarms.

OPTIONAL: Stand-by battery power is optional.
SPECIFICATIONS:

**Range:**
- **FIL-9DP:** 0.1 - 10,000 mR/h (5 decades) is standard.
- **OPTIONAL:** 0.01 mR/h – 1R/h (0.1µSv/h – 10 mSv/h)
  Range systems offer any 3 or 5 consecutive decades from 0.1 mR/h to 10 R/h.

**Accuracy:**
- +/- 10% of decade

**Detector:**
- Air equivalent ion chamber. Standard systems use Model IC-2 (for Gamma) or Model IC-1 (for Beta-Gamma). Both models have graphite lined phenolic walls and an active free air volume of 2 liters.
- **Optional** high range systems use smaller chambers. Detector is supplied with 8 ft. cable. **OPTIONAL:** 500 ft. of cable.

**Detector Response:**
- **Gamma Energy:**
  - IC-1 is sensitive down to 2 KeV; energy independent (15%) 4 KeV to 6 MeV.
  - IC-2 is sensitive down to 10 KeV; energy independent (15%) 20 KeV to 7 MeV.
- **Beta Energy:**
  - Sensitive down to 0.15 MeV; energy independent (25%) 0.4 MeV to 7 MeV (IC-1 only).

**Environment:**
- **Temperature:** Operating range between -30° C and 65° C;
- Drift less than 0.4% per °C at room temperature.
- **Humidity:** 0-95% non-condensing.

ELECTRONICS:

**Model:**
- LAM-10D  **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.

**Engineering Units:**
- User can input correct conversion factor and change to any units.

**Controls:**
- Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.

**Alarm:**
- 2000 Hz audio tone with audio “mute” switch + RED LIGHT,
  - High current relay. 0-100% of full scale.

**Serial Output:**
- Two way RS-232 standard, Ethernet optional.

**Pulse Output:**
- Internal 1 volt positive. Other outputs and interfaces are optional.

**Batteries:**
- 5 amp-Hour Battery Pack with built-in charger.

**Battery Life:**
- 100 Hours in Non Alarm Status
- 18 Hours in Alarm Status

**Power:**
- 105-125 volts, 50-60 Hz (220 V optional)

**Mounting:**
- Wall or table mountable for rack or Nema 4 (hostile environment) cabinet.

**Construction:**
- NEMA-4X polycarbonate gasketed case:
  - rugged and splash-proof.

**Weight:**
- 3 lbs. (1.4kg) including batteries and hardware, excluding probe.

OPTIONS:

- Multiple Channel Systems.
- Solenoid Activated Check Source
  - For System Calibration.
- Remote Alarm-Flasher-Howler
- Remote Meter Readout With Alarm
- Data Archive & Retrieval
- Stand By Batteries
- Cable To 500 Feet

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