RADIATION MONITORS

Model CRM-2,
Continuous Passive Radon Monitor

The CRM-2 is a stand-alone Radon Measurement System ideally suited for unattended continuous passive monitoring and measurement of radon gas concentrations.
The unit is housed in a lockable stainless steel enclosure allowing it to be situated in severe environments where a portable instrument would be unsuitable.
The micro-processor controlled system is a highly sensitive and reliable laboratory grade instrument which allows for fast, accurate measurements of radon levels.
The Instrument features a detachable control module and detector that allows for ease of maintenance and calibration. The detector assembly may be located within the enclosure or externally up to 50 feet away from the monitor.
An external siren gives audible indication that alarm levels have been exceeded. An external strobe gives a visible indication even in high ambient light conditions.

CRM-2

Applications:

- Waste Site Monitoring
- Radioactive Site Clean-up
- Autonomous Continuous Monitoring
- Mining/Ore Processing
- Industrial Sites
- Perimeter Monitoring
- Custom Applications

Features:

- Lockable weather resistant enclosure
- High sensitivity
- Additional Lithium battery supports memory during a power interruption
- Back-lit alphanumeric display
- Displays activities in PiC/l or Bq/m^3
- User programmable measurement interval and alarm
- Remote alarm contact provided
- Manual alarm test and muting
- RS232 port/PC software
- Calibration parameters stored in non-volatile memory
- Internally rechargeable battery maintains basic operation during a power interruption
- Optional external alarm siren and strobe light

Theory of Operation:

The radon detector is comprised of a Lucas type cell. The gas to be sampled naturally diffuses through a radon permeable membrane into the cell.
As the radon decays it emits an alpha particle that strikes the silver activated zinc sulfide coating of the cell. The energy of the alpha particle is converted to a light pulse by the phosphor. The light pulse is amplified by the PMT and counted by the CRM-2 over the measurement interval.

PYLON

RADIATION MONITORS

Specifications:

GENERAL	
Mode of Operation:	Continuous.
Sample & Count Periods	User Programmable.
Maximum Counting Rate:	15,000 cps
Electronic Background:	< 0.4 cpm
DETECTOR	
Detector:	Pylon Model 200P Lucas Type Passive Cell.
Detection Specifications:	Please refer to the Passive Cell brochure.
POWER	
Power Supply Requirements:	120 / 240 VAC, 50 / 60 Hz, 1 A.
Battery Type(s):	1) Integrated 6V gel cell. 2) Integrated Lithium battery for RTC circuit.
Battery Operating Time:	72 Hrs
Battery Charge Time:	16 Hrs
FEATURES	
Display	20 Character by 4 Line Backlit Graphic Liquid Crystal Display.
Memory	2048 data points (85 days at 60 min intervals).
Data Port:	1) RS-232 via 9 pin D-Sub Connector. 2) 5V TTL Negative Going Pulse via BNC Connector. 3) RS-485 via 9 pin D-Sub Connector (Optional. Replaces RS-232 Signals). 4) 4 - 20 mA via Mil Style Connector (Optional).
Low Battery Indicator:	Displays "Low Battery".
ALARMS	
Alarm Level:	Programmable.
External Alarm Output:	Isolated contact, 1A nominal @ 24V.
ENVIRONMENTAL	
Operating Temperature Range:	0 to +50 (-32 to +122) °C (°F)
Storage Temperature Range:	-20 to +60 (-4 to +140) °C (°F)
Relative Humidity Range:	0 to 90 % - Non-Condensing.
DIMENSIONS	
Length:	17.1 (6.75) cm (in.)
Width:	40.6 (16) cm (in.)
Height:	57.2 (22.5) cm (in.)
Weight:	14 (30) kg (lb.)

• Values are nominal.

Ordering Information:

Model CRM-2 Order part number 6243400.

Options (Other options are available. Please contact Pylon):

Heater (Factory Installed):	Order part number 6243650.
External Alarm System:	Order part number 6243640.
Current Loop (Factory Installed):	Order part number 6243360.

Datasheet: 125 Rev 3

PYLON ELECTRONICS INC.
147 Colonnade Road, Ottawa, ON K2E 7L9 CANADA
https://pylonelectronics-radon.com
TEL: 613-226 7920
FAX: 613-226 8195
instrument@pylonelectronics.com