



Strap-On Pipe Radiation Monitor

Model Series PEMO-7LE

Application

The **PEMO-7LE** is a sensitive and versatile version of the broadly used, TBM-emergency response radiation detector for Water monitoring. It may be used to monitor water in pipes or effluent streams.

Description

The **PEMO-7LE** Pipe Monitor assures accurate detection and quick alarm in case of waterborne radioactivity contamination flowing thru one or more pipes.

A constant check with alarm and data record on optionally included computer.

It provides integrated exposure information and can provide hard copy via external printer.

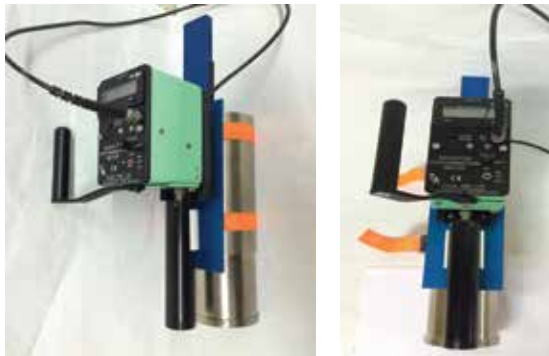
It is a complete system but may be expanded per need.

The **PEMO-7LE** uses a standard NaI(Tl) Detector in T/A's unique Strap-On Style probe to continuously measure any Gamma emitting Radioactive water or other liquids.

- The water stream is under constant surveillance via a scintillation detector.
- The unit is completely self-contained.
- No down time

Optional

- Data archive and retrieval.
- Software package for integration into facility computer and to link multiple detectors.




Features

- Gamma Detection in Water Pipes
- Portable
- Quick Installation with Adjustable Straps
- Installs Anytime Anywhere
- No Penetration, No Downtime
- Sensitivity Independent of Flow Rate
- Battery Operated
- Read Out mR/hr or cps
- Real Time Alarm
- Rate and Integrated Exposure
- Local Read-Out
- **Optional:** USB Port
- Works Well with Standard Scada Data SYSTEMS



TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

DIVISIONS OF
 US NUCLEAR CORP

7051 ETON AVENUE, CANOGA PARK, CA 91303 | 818-883-7043 | F: 818-883-6103
RGOLDSTEINTA@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

Strap-On Pipe Radiation Monitor

Model Series PEM0-7LE

Specifications

Sensitivity

- With a 1" x 1" crystal, without the optional shielding: detects 80µR/hr above background in 3 sec at 99% confidence level.
- Sensitivity and response time depend on user's requirements and physical circumstances such as pipe diameter, wall thickness and ambient background radiation level and energy (KeV) of major nuclides of interest.
- For Example: A system with 3" x 3" NaI detector and 2" of lead shielding has a limit of sensitivity better than 1×10^{-7} µCi/cc of Co-60 in 18" diameter pipe with 0.02mR/h background in one hour measurement.

Detectors

Model PGS-3

1" x 1" NaI (TI) crystal scintillation detector probe, sensitive to all Gamma above 100 KeV depending on wall thickness of the pipe.

Mount Plate:

Blue Aluminum

Mount Strap:

Orange Adjustable Strapping

Electronics Model TBM-3D Programmable Scaler with RS-232 /485

Alarm: Settable

2000 Hz beeper, red LED

Response Time:

Settable 0.1 to 100 seconds

Readout:

6 digit LCD for each detector showing: rate and total

Power:

6 AA cells. **Optional** AC adapter
110 VAC to 240 VAC Input 9V DC Output, 0.6 amps

Flow Rate:

Measurement is independent of flowrate

Case:

Sturdy, gasket lined aluminum case

Cable:

36" BNC to BNC Cable

BNC Adapter:

Right Angle

Serial Cable:

16 feet Rj-11 to DB-9 (F)

Optional:

USB Adapter Model TU-S9

Weight and Dimensions

Dimensions Electronics:

3" W x 4" H x 5.3"

Dimensions Detector:

1.5" dia x 8" long

Detector Assembly Weight:

4 lbs. for unshielded system

Shipping Weight:

8 lbs. (1 detector system)

Optional:

Smart Switch:

B+B Electronics 4 Port
232-MSS2

On-Site:

Onsite set-up with users
SCADA System

PGS-3L*:

2" x 2" Na(Tl) Crystal probe

Shielding:

0.25" to 3" low-activity-lead
around detector

Power:

AC adapter


Data:

Data Archive and Retrieval

**Call factory for more options*



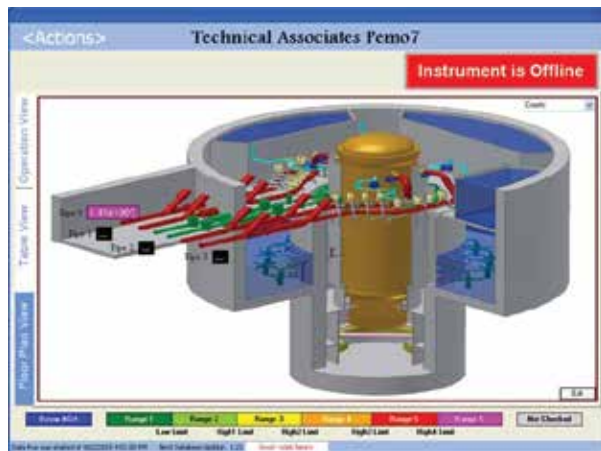
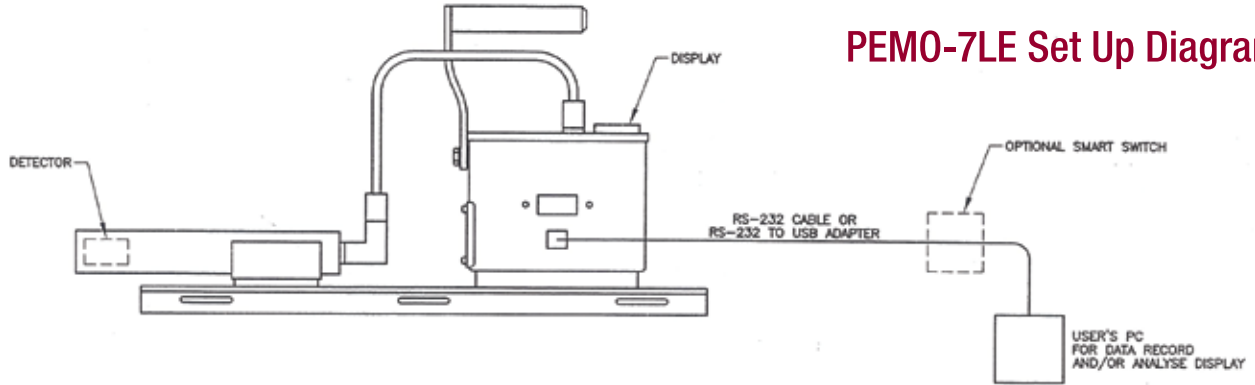
TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

DIVISIONS OF
 US NUCLEAR CORP

7051 ETON AVENUE, CANOGA PARK, CA 91303 | 818-883-7043 | F: 818-883-6103
RGOLDSTEINTA@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

Strap-On Pipe Radiation Monitor

Model Series PEMO-7LE



Measurable Name	EU	Units	Counts Per Second	EU's (2 min Average)	EU's (30 min Average)	EU's (8 hr Average)	EU's (24 hr Average)	Limit Level	Loss Of Signal
Pipe 0 Counts	counts							0	<input type="checkbox"/>
Pipe 0 Count Rate	cps							0	<input type="checkbox"/>
Pipe 0 Dose Rate	mR/h							0	<input type="checkbox"/>
Pipe 0 Dose	mR							0	<input type="checkbox"/>
Pipe 1 Counts	counts							0	<input type="checkbox"/>
Pipe 1 Count Rate	cps							0	<input type="checkbox"/>
Pipe 1 Dose Rate	mR/h							0	<input type="checkbox"/>
Pipe 1 Dose	mR							0	<input type="checkbox"/>
Pipe 2 Counts	counts							0	<input type="checkbox"/>
Pipe 2 Count Rate	cps							0	<input type="checkbox"/>
Pipe 2 Dose Rate	mR/h							0	<input type="checkbox"/>
Pipe 2 Dose	mR							0	<input type="checkbox"/>
Pipe 3 Counts	counts							0	<input type="checkbox"/>
Pipe 3 Count Rate	cps							0	<input type="checkbox"/>
Pipe 3 Dose Rate	mR/h							0	<input type="checkbox"/>
Pipe 3 Dose	mR							0	<input type="checkbox"/>

Optional Software Screen Shots

Location:	Pipe.0	Pipe.1	Pipe.2	Pipe.3
Status:	OK	Offline	Offline	Offline
Total Counts:	1.45e+007	...	...	...
Counts Per Second:	6.11	...	...	...
Dose Rate:	6.11 mR/h	...	...	...
Dose:	1.45e+007 mR	...	...	...



TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

DIVISIONS OF
USNUCLEARCORP