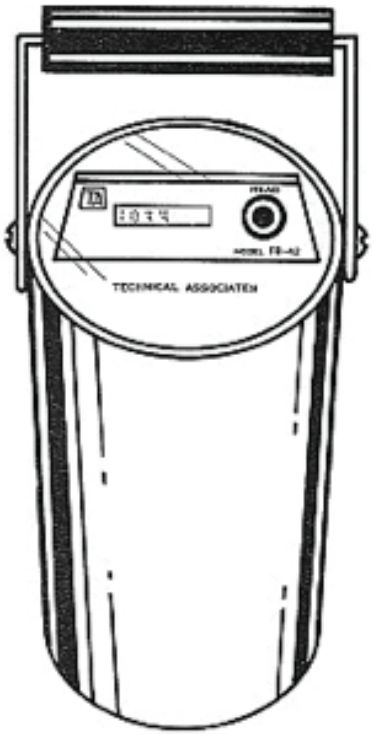

Rapid Radon Monitors

TLD and GM

Model Series - FR
Model FR-32 and Model FR-42

FR-42
DIGITAL DISPLAY
GM TUBE REPLACES TLD

Model Series FR is primarily used for establishing baseline Radon levels and for assuring compliance with the Nuclear Regulatory Commission ALARA guides

Features

- Sensitive 0.03 picoCi/liter/week
- Unattended Operation Up to 30 Days
- Long Life Battery
- Meets NRC ALARA Recommendations
- **FR-32** – TLDs For Gamma Background Measurement
- **FR-32** – No Electronics – Send TLD to Lab for Analysis
- **FR-42** – Internal Scaler Type Digital Display
- **FR-42** – Uses a GM Tube Instead of TLD

Application

Model Series FR is designed primarily for field, mill, and mine use, and are excellent for measuring Radon in basements and well-sealed buildings.

Performs Radon check of air for establishment of background and baseline Radon records or to determine and record operating levels for personnel safety and/or ALARA needs.

Description

Model Series FR. Radon diffuses into a counting chamber where the daughter recoils are concentrated by electro-static attraction and deposited adjacent to a TLD or GM tube. FR-32 uses the TLD and FR-42 uses a GM tube. TLD needs to be sent to the lab for analysis readout.

- A one-week exposure gives a lower limit of detection of 0.03 pCi/l of Radon.
- Longer exposure gives greater sensitivity.
- No pump is necessary.
- Maintenance service:
  - » Replace the battery per schedule recommended in the user's manual.
  - » Replace the indicating drying agent as needed (usually 2-8 weeks, depending on weather).

The **FR-42** may be read in a few minutes.

It is the same instrument as the **FR-32** but has a miniature Thin-Window GM tube and an internal scaler type display.

CBRN Real - Time Air & Water Specialists

TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303
PHONE: 818-883-7043 | FAX: 818-883-6103
SALES@USNUCLEARCORP.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISIONS OF US NUCLEAR CORP
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Rapid Radon Monitors

TLD and GM
Model Series - FR: Model FR-32 and Model FR-42

Process

1. The **FR-32** incorporates three TLD detection chips in a single holder.
2. Two side chips measure background; the end chip measures deposited alpha energy.
3. The incorporation of the two background chips allows more accurate determination of the Radon content of the ambient air and also is accepted by the NRC as a determinant as to average gamma background for the period that the FR-32 is in the field.
4. The desiccant is incorporated into a removable cartridge which clips onto the bottom of the instrument.
5. The **FR-Series** is designed for field handling and rough usage in a wide temperature range and diverse field conditions.

Electronics and Display:

6. The **FR-32** has no electronics, no display, and the TLD is sent to the laboratory for analysis and readout.
7. The **FR-42** has a digital internal scaler type display and uses a GM tube instead of the TLD.

Specifications

Weight:	13 lbs. (5.9 kg)
Shipping Weight:	16 lbs. (7.5 kg)
Dimensions:	8 3/4" d x 16 1/2". (22.22 cm x 41.91 cm
Chamber Volume:	462 cubic inches, 7.5 liters.
Detectors:	
FR-32:	(3) TLDs each 1/8" d x 1/8" (3mm x 3mm x 0.5mm).
FR-42:	(1) Miniature thin window GM Tube
Batteries:	(6) AA
Filter:	7 1/2" diameter (19.05 cm) Whatmen 41 or equivalent.
Drying Agent:	7 1/2" x 1" (19.05 cm x 2.54 cm) Drierite or Silica-Gel cartridge, reusable after oven drying.
Included:	(1) Spare Desiccant (Drying Agent) Cartridge. (1) Spare TLD Holder.

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