

# Models AT-138, AT-138S, AT-725 Pencil Dosimeters



Ludlum Measurements, Inc.

## Features

- Sensitive to Gamma and X-ray
- Lightweight
- Hermetically Sealed
- Sturdy Pocket Clip
- Meets ANSI N13.5 & N322-1997
- Responds Well to Fast Pulse X-Rays
- Low Leakage, Measures Background



## Introduction

This direct reading dosimeter is a ruggedly constructed precision instrument for measuring and directly reading accumulated dose of gamma and X-ray radiation. Applications include personal and environmental monitoring. The low-energy feature has hospital applications including fluoroscopy, portable radiography, and angiography. A hardened

sapphire end window provides clean, scratch-proof viewing of measurements. This pocket sized instrument is lightweight and has a sturdy clip to attach to an individual's pocket for constant use. To ensure accurate readings, these dosimeters must be zeroed before use with a dosimeter charger, such as the AT-909 or The Charger (see options below).

## Specifications

Model	Range	Part Number
AT-138	0 - 200 mR	51-2936
AT-138S	0 - 2 mSv	51-2937
AT-725	0 - 5 R	51-2939

**ENERGY RESPONSE:** 16 keV to 2 MeV

**RADIATION DETECTED:** gamma and X-ray from 16 keV to 6 MeV

**DETECTOR:** fiber electrometer mounted in an electrically conductive plastic ion chamber

**DETECTOR HOUSING:** very low permeability plastic, hermetically sealed

**FINISH:** barrel and end caps: natural matte black; clips: color coded plastic (color signifies range) or metal clips

**ACCURACY:** within 10% of true exposure

**RATE RESPONSE:** dose rate independent for gamma and X-ray radiation

**ELECTRICAL LEAKAGE:** less than 1.0% of full scale for 24 hours at 50 °C (122 °F)

**TEMPERATURE RANGE:** -20 to 50 °C (-4 to 122 °F)

**RELATIVE HUMIDITY:** up to 90%

**DIMENSIONS:** 1.5 x 12.4 cm (0.6 x 4.5 in.) (Dia x L)

**WEIGHT:** 25 g (1.0 oz)

**WARRANTY:** 2 year limited warranty

**QUALIFICATIONS:** meets ANSI Specifications N13.5 and N322-1997

## Options

**Model AT-909:** a compact, lightweight charger for direct reading dosimeters, uses two "AA" cell batteries, capable of recharging thousands of dosimeters (Part Number 51-2938)

**Model: The Charger:** a compact, lightweight piezoelectric generator that can zero a variety of quartz and carbon fiber dosimeters, no batteries required (Part Number 51-2940)

**Dosimeter Light:** LED light that attaches to dosimeter permitting it to be read in low-light conditions (Part Number 51-2956)

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: <http://www.ludlums.com> Tel: 800-622-0828 / 325-235-5494 / Fax: 325-235-4672 / Email: [sales@ludlums.com](mailto:sales@ludlums.com)

Note: specifications subject to change without notification. We are not responsible for errors or omissions.

Dec 2019