LUDLUM MEASUREMENTS, INC.

Model 3-IS NORM Kit

Part Number: 48-3581-1

Features

- Ready-to-Go Response Kit in Rugged Case
- Intrinsically Safe Analog Survey Meter
- Measures Alpha, Beta, and Gamma Radiation
- Includes a High-Sensitivity Gamma Probe for Quickly Locating Sources of Radiation

Introduction

The Model 3-IS NORM Kit consists of the basic radiation measurement tools needed for NORM and emergency response applications. The standard kit includes:

- Model 3-IS Intrinsically Safe Survey Meter
- Model 44-9 Alpha-Beta-Gamma Pancake GM Detector
- Model 44-2 High Energy Gamma Scintillation Detector

The Model 3-IS meter is designed and tested to USA standards for intrinsic safety, permitting it to be used in potentially explosive atmospheres. Users can connect either the Model 44-9 alpha-beta-gamma detector for general survey measurements or the Model 44-2 high-sensitivity gamma detector for locating the source of high readings. A special 1 m (39 in.) detector cable with set-screw-locking connectors to prevent inadvertent disconnection during use is also included.

Each kit comes in a rugged, air- and watertight transport and storage case, which holds the meter, the two detectors, and the detector cable.

Model 3-IS

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556
Web: ludlums.com **Tel**: 800-622-0828 / 325-235-5494 **Fax**: 325-235-4672 **Email**: sales@ludlums.com
Note: specifications subject to change without notification. We are not responsible for errors or omissions.

Model 3-IS Intrinsically Safe Survey Meter

METER: 6.4 cm (2.5 in.) arc, 1 mA analog type
METER DIAL: 0–2 mR/hr, or 0–500 kcpm, BAT TEST (others available)
LINEARITY: reading within 10% of true value with detector connected
CONTROLS:
RANGE SWITCH: OFF, BAT, x100, x 10, x1, x0.1
RESPONSE SWITCH: toggles between FAST (4 sec.) or SLOW (22 sec.) from 10% to 90% of final reading
RESET BUTTON: zeroes the meter
AUDIO SWITCH: turns click audio on/off, built-in unimorph speaker, greater than 60 dB at 0.6 m (2 ft)
CALIBRATION CONTROLS: accessible from front of instrument (protective cover provided)
TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)
POWER: 2 each Procell PC 1300 "D" cell batteries (housed in sealed compartment, externally accessible)
BATTERY LIFE: typically greater than 2000 hours with alkaline batteries; battery condition can be checked on the meter (See low battery note on website: www.ludlums.com)
CONSTRUCTION: cast and drawn aluminum with beige powder coat
CONNECTOR: series "C"
SIZE (H x W x L): 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.), including handle
WEIGHT: 1.6 kg (3.5 lb), including batteries
INTRINSICALLY SAFE CERTIFICATION:
Class I, Division 1, Groups A, B, C, and D, T6
- UL 61010-1 & CAN/CSA-C22.2 No. 61010-1
- UL 913
- CAN/CSA-22.2 No 157-92 (R2002)

WARNING: Use only Duracell Procell PC1300 1.5 V type "D" batteries. To reduce the risk of ignition of a flammable or explosive atmosphere, batteries must be changed only in a location known to be a non-hazardous area.
WARNING: When repairing this unit, substitution of components may impair intrinsic safety.

Model 44-9 Alpha-Beta-Gamma GM Detector

DETECTOR: pancake-type, halogen-quenched GM
EFFICIENCY (4π): ^{14}C - 5%; ^{90}Sr/^{90}Y - 22%; ^{99}Tc - 15%; ^{32}P - 32%; ^{239}Pu - 15%; ^{99m}Tc - < 1%; ^{125}I - 0.2%
SENSITIVITY (^{137}Cs gamma): 3300 cpm per mR/hr
ENERGY RESPONSE: energy dependent
BACKGROUND: 30-60 cpm (in 10 µR/hr field)
DEAD TIME: 80 µs
CONSTRUCTION: aluminum housing with beige powder coat, stainless steel screen (79% open)
SIZE (H x W x L): 4.6 x 6.9 x 27.2 cm (1.8 x 2.7 x 10.7 in.)
WEIGHT: 0.5 kg (1 lb)

Model 44-2 High Energy Gamma Scintillation Detector

DETECTOR: NaI(Tl) scintillator, 2.5 x 2.5 cm (1 x 1 in.)
EFFICIENCY (4π): ^{125}I - 7%; ^{57}Co - 10%; ^{137}Cs - 3%; ^{60}Co - 3%
SENSITIVITY (^{137}Cs gamma): typ. 175 cpm per µR/hr
ENERGY RESPONSE: energy dependent
BACKGROUND: 1800 cpm (in 10 µR/hr field)
CONSTRUCTION: aluminum with beige powder coat
SIZE (D x L): 5.1 x 21 cm (2 x 8.25 in.)
WEIGHT: 0.5 kg (1 lb)

Options

- Stick-On Check Source, 1 µCi ^{137}Cs (PN: 4464-473-01)

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556
Web: ludlums.com **Tel**: 800-622-0828 / 325-235-5494 **Fax**: 325-235-4672 **Email**: sales@ludlums.com
Note: specifications subject to change without notification. We are not responsible for errors or omissions.