

Model 3-IS Series Intrinsically Safe Survey Meters



Ludlum Measurements, Inc.

Introduction

The Model 3-IS series of intrinsically safe radiation survey meters are for use in areas where explosion hazard is a concern. The meter is available in two models. The general purpose Model 3-IS can be paired to any of several approved external radiation detectors (see list below) for exposure rate or contamination surveys. The Model 3-IS-1 gamma survey meter is outfitted with a single, internally mounted GM detector for performing exposure rate measurements. Rugged construction with separate battery compartment offers long-lasting protection and instrument life.



Model 3-IS
Part No. 48-3581

Model 3-IS-1
Part No. 48-3651

	Model 3-IS	Model 3-IS-1
Detector	Ludlum Model 44-2, 44-6, 44-7, 44-9, 42-41L and 44-38 are the only detectors approved for use in this type of environment	Internally housed energy-compensated GM tube, 100 cpm/mR/hr sensitivity
Detector Range	Detector dependent, typically 0–200 mR/hr, or 0–500,000 counts/minute (cpm)	0.1 mR/hr to 1.0 R/hr
Detector Connector	Special locking series “C” (optional cable length from 1 m [39 in.] to 11.28 m [37ft.] available)	none; internal detector only
Meter Dial	0–2 mR/hr, or 0–5 kcpm, BAT TEST (others available)	0–10 mR/hr, BAT TEST
Part Number	48-3581	48-3651

Common Specifications

METER DIAL: 6.4 cm (2.5 in.) arc, 1 mA analog type; 0–2 mR/hr, or 0–500 kcpm, BAT TEST (others available)

MULTIPLIERS: x0.1, x1, x10, x100

LINEARITY: reading within 10% of true value with detector connected

AUDIO: built-in unimorph speaker with ON/OFF switch (greater than 60 dB at 0.6 m [2 ft])

CALIBRATION CONTROLS: accessible from front of instrument (protective cover provided)

HIGH VOLTAGE: adjustable from 400–1000 Vdc

THRESHOLD: fixed at 40 mV ± 10 mV

RESPONSE: toggle switch for FAST (4 seconds) or SLOW (22 seconds) from 10% to 90% of final reading

RESET: pushbutton to zero meter

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 & drawn aluminum with beige (Model 3-IS) or yellow (Model 3-IS-1) powder coat

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

SIZE: 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.) (H x W x L), 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 3-IS face
(handle removed)