peo DETECTION

LUDLUM MEASUREMENTS, INC.

Model 26S

Integrated Scintillator Frisker

Part Number: 48-4380

Features

- Lightweight Design - Only 0.35 kg (0.75 lb)
- Rugged 1 x 1 Equivalent Scintillator Detector
- Sigma Audio (or Click Audio Possible) & Alarm Beep
- Displays in µR/hr, µSv/h, d/m, d/s, c/m, or c/s
- Auto-ranges from µR/h to mR/h
- Simple Three-Button Operation
- Count Rate, Exposure, Dose, and Counting Alarms
- Automatic Display Backlight
- Bright Red Flashing ALARM LED

Introduction

The Ludlum Model 26S incorporates electronics and a miniature scintillation detector in an ergonomically designed, ruggedly-constructed, and water-resistant housing. The integrated unit doesn't have a detector cable, thereby simplifying the process of frisking. The optimized configuration includes a rugged 1 x 1 equivalent detector, loud Sigma audio, and large auto-ranging LCD display with automatic backlighting. These features are combined in one convenient package making it easy to detect and measure gamma fields.

Operation of the Model 26S is kept simple through the use of just three buttons that are strategically placed for one-handed operation.

Three modes of operation – RATE, MAX, and COUNT – are available. The RATE mode displays current radiation levels in terms of rate.

Max mode captures the highest rate detected so it is possible to determine a peak rate during frisking operations when the display is not visible. COUNT mode allows the operator to perform a survey for a predetermined time. The user-selected units can display results in a measurement of scaler counts, activity (disintegrations), time-averaged rates, or even accumulated dose.

Low-power circuitry means two standard "AA" sized batteries deliver hundreds of hours of instrument operation. The parameters may be protected via internal dipswitch, or the calibrator may allow the user to adjust them. Other features include a backlight triggered by low-level ambient lighting (may be configured for "Continuous On" operation) and audio that may be silenced for both RATE and MAX modes.

RESPONSE TIME: user-selectable from 1 to 60 seconds, or Auto-Response Rate FAST or SLOW

Specifications

DETECTOR: 2.5 x 1.9 cm (1 x 0.75 in.) CsI(Tl) scintillator, energy-dependent (see response curve on back)

GAMMA SENSITIVITY: 165 kcpm per mR/hr (137Cs)

ENERGY RANGE: from 40 keV to 3 MeV

EXPOSURE LINEARITY: ± 10% from background to 200 µSv/h (20 mR/hr)

COUNT RATE LINEARITY: ± 10% from 8 c/s to 8 kc/s (200 c/m to 999 kc /m)

LCD DISPLAY: 3½ digit LCD with large 12.7 mm (0.5 in.) digits
Units: (k)c/s, (k)c/m, (k)d/m, (k)d/s, µR/hr, and µSv/h
Indicators: low-battery indicator, MAX, ALARM

DISPLAY RANGE: 0.00 c/s to 19.9 kc/s; 0 c/m to 999 kc/m; 0.00 kd/s to 19.9 kd/s; 0 d/m to 999 kd/m; 0.00 to 200 µSv/h; 000 µR to 20 mR/h

CONTROLS: three pushbuttons
- ON/OFF/QUIET: press to turn ON, tap to alternate between 'click' audio and QUIET, hold for OFF
- MODE: select RATE (count rate), MAX (captures peak rate), or COUNT (preset count time)
- UNITS: alternates between Primary and Secondary units

BACKLIGHT: built-in ambient light sensor automatically activates low-power LED backlight, or may be configured for 'Continuous On' operation (will reduce battery life)

ALARMS: count rate and scaler alarm setpoints adjustable over the display range

LOSS OF COUNT PROTECTION: after 60 seconds of no pulses from detector, unit will flash a zero reading and alarm audio will be triggered

SIGMA AUDIO: greater than 60 dB at 0.6 m (2 ft); approximately 4.5 kHz

POWER: two "AA" batteries

BATTERY LIFE: approximately 200 hours of operation

CONSTRUCTION: high-impact plastic with water-resistant rubber seals and separate battery compartment

ENVIRONMENTAL RATING: NEMA 3/ IP 53

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

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: 0.35 kg (0.75 lb)

OPTIONS (not supplied):

- Standard 1/8 in. jack to allow operator to plug in headphones (PN 4498-538)
- Canvas Holster (PN 2312577)
- Model 180-28 Sample Holder (PN 47-3948)