Model 79/1
Low-Range Carbon Fiber Stretch Scope

Features

- Lightweight - Approximately 1/3 the Weight of Comparable Instruments
- 1.1 m (45 in.) to 4.5 m (177 in.) Telescoping Carbon Fiber Pole
- CsI(Tl) Scintillator Detector, 18x 18 mm (0.7 x 0.7 in.)
- Range: 0.01 µSv/h–500 µSv/h (1 µR/hr–50 mR/hr)
- 0.01 µSv/h (1 µR/hr) Display Resolution
- Backlit, Auto-Ranging LCD with Adjustable Viewing
- Simple Green, Yellow, and Red Status Indicators
- 3-Button, Intuitive Interface for Easy Operation
- USB Port and All-Digital Calibration

Introduction

The Model 79/1 Stretch Scope provides the operator with the ability to investigate areas of suspected gamma contamination while remaining at a greater distance from potentially high fields of radioactivity. The 4.5 m telescoping pole allows the attached detector to reach areas difficult to access with other types of instruments.

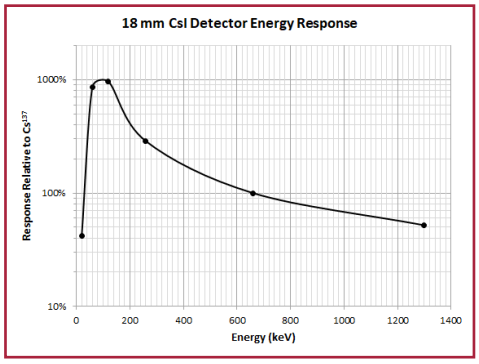
A large, easy-to-read LCD display rotates to maximize ease of viewing. Padded shoulder strap (included), piercing warning tone, and an easy, intuitive design are also featured. The unit's body is made of durable, high-impact, plastic with splash-resistant construction, allowing outdoor use.

The Model 79/1 has three modes of operation - RATE, MAX, and COUNT. Measurements can be collected in two sets of units (primary and secondary) for RATE and MAX modes in cps, cpm, Sv/h, mrem/hr, and R/hr units. The user can choose by simply pressing the Units button. An internal switch is used to enable or disable the front-panel setup feature to protect desired settings from inadvertent modification. Setup is also available via software from Ludlum Measurements.

Note: While the detector used in this instrument is sensitive and is often used for detection of near-background levels of radiation, its nonlinear energy response means that dose and exposure measurements may be over/underreported.

Specifications

Part Number: 48-4241 (*an adjustable shoulder strap is included*)



DETECTOR: 18 x 18 mm (0.7 x 0.7 in.) CsI (Tl) crystal scintillator
DETECTION RANGE: 0.01 µSv/h to 0.5 mSv/hr (1 µR/h to 50 mR/h)
ENERGY RESPONSE: Nonlinear (see energy response curve at right)
LINEARITY: +/- 15% full range (dose rate)
LCD DISPLAY: Auto-ranging, 3-digit LCD with large 13.4 mm (0.53 in.) digits, (k)cps, (k)cpm, (k)Bq, (k)dpm, (µ)(m)R(/h), (µ)(m)Sv(/h), (µ)(m)rem(/h), low-battery indicator, MAX, ALARM, MUTE
DISPLAY RANGE: 0.0 cps to 99.9 kcps; 0.00 cpm to 999 kcpm; 0.00 Bq to 99.9 kBq; 0.00 dpm to 999 kdpm; 0.00 µR/h to 999 R/h; 0.00 µSv/h to 999 Sv/h; 0.00 µrem/h to 999 rem/h. Display range can be set to limit display to calibrated range.
BACKLIGHT: Built-in ambient light sensor automatically activates low-power LED backlight, unless internal dipswitch is set to continuous-on (will reduce battery life). Alarm light intensity varies based on ambient light levels.
USER CONTROLS:
- ON/OFF/ACK - Long press to turn ON; Tap to acknowledge alarms and silence alarm tone; Press to reset Sigma Audio alarm; Turn "click" audio On/Off; Turn Sigma Audio beep On/Off; Hold for OFF
- MODE - Long press alternates between NORMAL (count rate), MAX (captures peak rate), and COUNT (user-selectable preset count time from 0 to 10 minutes). Number of modes can be reduced in setup.
- UNITS - Long press changes the units between primary or secondary units

RESPONSE TIME: User-selectable from 1 to 60 seconds, auto-response rate FAST or SLOW, or Fixed FAST and SLOW
ALARMS: Alarm setpoints adjustable over the display range
OVERLOAD: High count rate saturation protection prevents false display of lower count rates
ZERO PROTECTION: After a user-settable time interval (default 60 seconds) of no pulses from the detector, the instrument will flash zero reading and the alarm audio will be triggered
DEAD TIME CORRECTION: Employs first and second order corrections for extended performance
AUDIO: Greater than 75 dB at 0.6 (2 ft), approximately 4 kHz
CLICK AUDIO DIVIDE: x1, x10, x100, x1k
POWER: Two alkaline or two rechargeable "AAA" batteries; Battery Life: Approximately 100 hours of operation, 24-hour low battery warning
CONSTRUCTION: DISPLAY UNIT: high-impact plastic with separate battery compartment; TELESCOPTING POLE: carbon fiber
TEMPERATURE RANGE: -20 to 50 °C (-5 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)
ENVIRONMENTAL RATING: NEMA rating of 4x or IP rating of 65
SIZE: 20.3 x 8.1 x 114 cm retracted; 4.5 m fully extended (8.0 x 3.2 x 45 in. retracted; 177 in. fully extended) (H x W x L; extended L)
WEIGHT: 1.4 kg (3 lb), including batteries and shoulder strap

Options:

Stereo Audio Option: Part Number 4498-697
Transport and Storage Case: Part Number 2312979
Lumic Calibration Software Kit: Part Number 4519-865
Lumic Configuration Software Kit: Part Number 4519-747

Ludlum Measurements, Inc.

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**: ludlum@ludlums.com

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