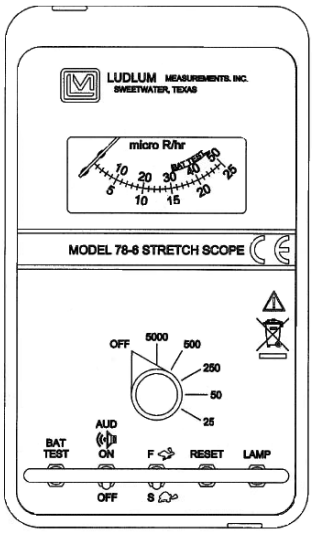
# Model 78-6
## Dual Analog/Digital Display Stretch Scope

### Features

- Stainless Telescoping Pole to 3.7 m (12 ft)
- .01 to 50 µSv/h (1 to 5000 µR/hr)
- Dual Analog/Digital Display
- Backlit Digital Display
- Splashproof Buttons with Switch Guard
- Adjustable Carrying Strap
- Removable Handle for More Compact Storage

### Introduction

The Model 78-6 Analog Stretch Scope features a 2.5 x 2.5 cm (1 x 1 in.) NaI (T1) NaI (T1) scintillator mounted on a 3.7 m (12 ft) extendable pole to offer optimum performance in counting low-level gamma radiation. The NaI scintillator is scintillator is energy sensitive, refer to the energy response curve for the relative response. The gamma scintillator measures gamma radiation from 1 µR/hr to 5000 µR/hr (.01 µSv/h to 50 µSv/h). Five range divisions are provided in the 0–5000 µR/hr spectrum. The meter face is made up of two scales, 0–50 and 0–25, plus battery test. The 0–50 scale corresponds to the 50, 500 and 5000 positions on the range selector switch. The 0–25 scale corresponds to the 25 and 250 positions on the range selector switch.




Other instrument features include Dead Time Correction (DTC); audible click-per-event with programmable 1, 10, 100, and 1000 divide-by; LCD backlight with programmable "on" time; programmable fixed or variable response time, and a count overflow visual alarm. Controls, including a calibration potentiometer for each range, are housed inside. Front-panel switches are sealed with rubber "boots" for moisture resistance. Two standard "D" cell batteries or nickel-cadmium rechargeable batteries provide power, though not a recharge capability.

### Specifications

Part Number: 48-3411

CE

**INDICATED USE**: low-level gamma survey with telescoping pole-mounted detector, 3.7 m 12 ft) fully extended
**WORKING ENVIRONMENT**: indoor/outdoor (splashproof shields for outdoor use); environmental rating IP52
**DETECTOR**: photomultiplier coupled to a 2.5 x 2.5 cm (1 x 1 in.) NaI(Tl) crystal mounted inside the instrument housing
**COUNTING RANGES**: two-scale meter face presenting 0 to 50 µR/hr with full-scale range positions of 5000, 500, and 50; and 0 to 25 µR/hr with full-scale positions of 250 and 25
**LINEARITY**: within 10% of true value with connected detector
**HIGH VOLTAGE**: variable from 400 to 1500 Vdc, electronically regulated to within 1%
**ANGULAR RESPONSE**: within 30% as detector is rotated from 0 to 90 degrees (calibration reference is with radiation field parallel to the long axis of the detector)
**GEOTROPISM**: referenced to the unit in horizontal position with display up, the indication will not vary more than 2% of the full-scale reading with the unit in any other direction
**ALERT/ALARM**: visual and audible adjustable alarm points
**DETECTOR DEAD TIME COMPENSATION (DTC)**: adjustable from 0 to 9999 microseconds (there is a reduced response in pulsed fields due to DTC)
**BACKLIGHT "ON" TIME**: 5, 15, 30, 60, 90, 120, 180, or 240 ± 1 second
**HEADPHONE JACK**: size 0.32 cm (1/8 inch)
**POWER**: 2 "D" cell batteries (housed in sealed handle)
**BATTERY LIFE:** typically 1000 hours with alkaline batteries (low battery indicated on display)
**CONSTRUCTION**: aluminum housing with beige powder coat finish, polished stainless steel telescope assembly with brass fittings
**TEMPERATURE RANGE**: -20 to 50 °C (-4 to 122 °F); may be certified for -40 to 65 °C (-40 to 150 °F)
**SIZE**: 17.7 x 10.2 x 114 cm retracted; 396 cm fully extended (7 x 4 x 45 in. retracted; 156 in. fully extended) (H x W x L, fully extended L)
**WEIGHT**: 2.9 kg (6.4 lb), including batteries

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**: sales@ludlums.com



April 2016