

# Model 44-215

## Beta Detector with Angled Head



Ludlum Measurements, Inc.



(two views shown)

### Introduction

The Model 44-215 beta scintillation detector, based on the familiar Model 44-1, features a larger window area attached to an ergonomically angled and more comfortably sized handle. The Model 44-215 design thereby provides additional benefit for the operator as well as achieving improved results. This detector may be used with any of the Ludlum instruments or equivalent instruments with a voltage range of 500–1200 volts and input sensitivity of 2–50 mV.

### Specifications

Part Number: 47-4143

**INDICATED USE:** beta survey

**SUGGESTED INSTRUMENTS:** general purpose survey meters, ratemeters and scalars

**CONNECTOR:** series "C" (others available)

**DETECTOR TYPE:** 5.1 x 0.03 cm (2.0 x 0.01 in.) (dia x thickness) plastic scintillator

**EFFICIENCY (4 $\pi$ ):** 10% for <sup>14</sup>C; 33% for <sup>99</sup>Tc; 33% for <sup>36</sup>Cl

**WINDOW:** 1.2 mg/cm<sup>2</sup> aluminized polyester

**WINDOW AREA:** 20 cm<sup>2</sup> active; 16.65 cm<sup>2</sup> open

**BACKGROUND (10  $\mu$ R/hr):** typically 100 cpm

**ENERGY RESPONSE:** N/A

**NON-UNIFORMITY:** less than 10%

**PHOTOMULTIPLIER TUBE:** 2.9 cm (1.125 in.) diameter

**OPERATING VOLTAGE:** typically 500–1200 volts

**CONSTRUCTION:** aluminum housing with beige powder coat

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

**SIZE:** 7.3 x 21.6 cm (2.88 x 8.5 in.) (Dia x L)

**WEIGHT:** 0.27 kg (0.6 lb)

### Options:

**Model 180-30:** anodized aluminum frame and sample tray (no collimator) (P/N 47-4177)

**Planchets:** 5.1 cm x 3.2 mm (2.0 x 0.125 in.) (Dia x thickness) in stainless steel or aluminum

Stainless Steel (P/N 7525-371-01) Minimum order quantity of 500

Aluminum (P/N 7525-371) Minimum order quantity of 500

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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