

# Alpha/Beta Scaler - Model 2929

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## Specifications

**INDICATED USE:** alpha beta sample counting

**DETECTOR:** Model 43-10-1 Alpha Beta detector (included)

**SCINTILLATOR:** ZnS(Ag) adhered to plastic scintillation material

**TUBE:** 5.1cm (2 in.) diameter magnetically shielded photomultiplier

**WINDOW:** 0.4 mg/cm<sup>2</sup> aluminized mylar

**ACTIVE and OPEN AREA:** 20.3 cm<sup>2</sup>

**EFFICIENCY(4π):**

alpha: 37%-<sup>230</sup>Th; 39%-<sup>238</sup>U; 37%-<sup>239</sup>Pu

beta: 8%-<sup>14</sup>C; 27%-<sup>99</sup>Tc; 29%-<sup>137</sup>Cs; 26%-<sup>90</sup>Sr/<sup>90</sup>Y

**CROSS TALK:**

alpha to beta: 10% or less

beta to alpha: 1% or less

**BACKGROUND:**

alpha: 3 cpm or less

beta-gamma: 80 cpm or less (10 μR/hr field)

**SAMPLE SIZE:** maximum 5.1 x 0.9 cm (2 x 0.4 in.) (Dia x L)

**AUDIO:** built-in unimorph type speakers with volume controls to provide a dual tone (1 per channel) click-perevent audio

**SCALERS:** 2 ea. 6-digit LED displays with a range of 0-999999 counts

**SCALER LINEARITY:** reading within 2% of true value

**TIMER:** thumb wheel adjustment from 0-99 minutes

with selectable multipliers of X0.1, X1, X10, or EXT for manual timing

**HIGH VOLTAGE:** adjustable from 200-2500 volts

**THRESHOLDS:**

beta - 4 mV

alpha - 175 mV

**BETA WINDOW:** 50 mV

**DATA-OUTPUT:** two 15-pin connectors allowing for recorder and printers (one for alpha, one for beta)

**AMP OUT:** "BNC" connector provides amplified detector pulse

**METER DIAL:** 0-2.5 kV

**METER:** 6.4 cm (2.5 in.) arc, 1 mA movement analog type

**POWER:** 95-250 Vac, 50-60 Hz single phase

**SIZE:** 21.6 x 36.8 x 22.9 cm (8.5 x 14.5 x 9 in.) (H x W x L) including detector

**WEIGHT:** 5.7 kg (12.6 lb) including detector

