



Revised 3/3/00

ORDELA MODEL 4200AB

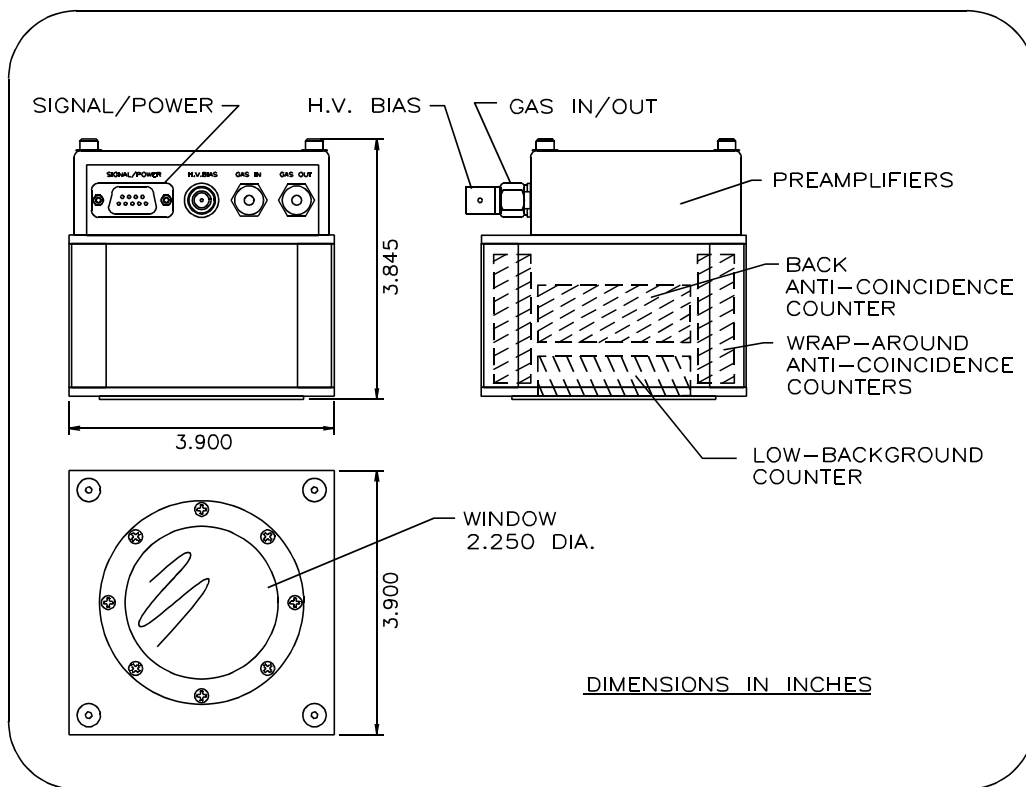
LOW-BACKGROUND ALPHA/BETA COUNTER

DESCRIPTION

The ORDELA, Inc. Model 4200AB is a low-background, gas-flow proportional counter designed and fabricated by ORDELA, Inc. for low level alpha/beta counting with minimum shielding requirements. The detector assembly, a wrap-around and back anti-coincidence guard counter, and two low-noise preamplifiers are integral parts of the Model 4200AB. The entire assembly is contained in a 10 cm (3.9 in.) cube, has a 5.7 cm (2.250 in.) diameter active entrance window, and is fabricated of solid, OFHC copper for the lowest possible background. Two anode wires are used and the counter normally operates on P-10 gas at atmospheric pressure. A 500 $\mu\text{g}/\text{cm}^2$ thick mylar window is standard; other thicknesses are available on special order. The preamplifier power is ± 12 V at 30 mA and bias for the proportional counters is +1.5 kV.

SPECIFICATIONS

| | |
|--------------------|---|
| BACKGROUND: | <1.1 counts per minute (cpm) alpha plus beta typical alpha = 0.01 cpm typical beta = 1.0 cpm |
| EFFICIENCY: | (with standard 500 $\mu\text{g}/\text{cm}^2$ window) >20% for ^{14}C >40% for $^{90}\text{Sr}/^{90}\text{Y}$ >20% for ^{210}Po |
| DETECTOR PLATEAUS: | ^{210}Po : <1.5% slope/100 V; >800 V plateau ^{90}Sr : <2.5% slope/100 V; >200 V plateau |
| UNIFORMITY: | $\pm 5\%$ over 90% of the window |
| SIZE: | 10 cm (3.9 in.) cube |
| WEIGHT: | 2.3 kg (5.0 lbs.) net; 4.5 kg (10.0 lbs.) shipping weight |



ORDELA MODEL 4200AB OUTLINE AND DIMENSIONS

WARRANTY

ORDELA, Inc. warrants its products to be free from defects in materials and workmanship for 12 months after shipment. No other warranty is included. Specifically, no warranty of merchantability or fitness for a particular purpose is implied. ORDELA's liability under this warranty is limited to repairing or replacing the product at ORDELA's option. This warranty is void if the product is operated improperly, disassembled, or modified other than in the ORDELA laboratory.