WESTINGHOUSE ELECTRONIC TUBE DIVISION

Sales Department: Elmira, New York

WL-6307	
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Westinghouse RELIATRON® Tube WL-6307 BF₂ Proportional Counter

The WL-6307 is a boron trifluoride proportional counter for the detection of thermal neutrons. The counter has an all-aluminum body one inch in diameter and 12 inches long; it is provided with a connector for "HN" cable fittings. The WL-6307 is extremely rugged and will operate at temperatures up to 80°C. It is filled to a pressure of 55 cm. Hg with BF₃ enriched to 96% with Boron-10 isotope. The sensitivity of the counter is approximately 4.5 counts per second for a unit thermal neutron flux and it operates in the vicinity of 2000 volts.

GENERAL DATA

Mechanical:															
Overall Length .														٠	12"
Diameter															
Sensitive Length															
Center Conductor															
Body Material . Filling: BF3 em	ri	ch	ed	to	٠ د	969	ا أ	ĺ'n	B]	0.	a	tj	pre	9.8	sure
															n Hg.
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Operational: Operating Voltage, approx. 2000 Volts Operating Temperature, maximum for extended periods of time . . . oc 80 Sensitivity, counts per second# . 4.5 Multiplication Factor, at 2000 volts 500 Plateau: Operating plateaus 200 volts or greater in length and with an average slope of 2.0% per 100 volts or less obtainable with 5 millicurie radium-beryllium neutron source.

For an isotropic thermal neutron flux of one neutron per cm² - sec.

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