

ELECTRONIC ASSOCIATES LIMITED

GAMMA TUBE 6916 (DH-1)

Description of 6916 (DH-1)

The DH-1 is a halogen-quenched Gamma counter. It was originally designed for use as a health monitor, but can be used in portable monitor or industrial tracing equipment equally well. It is also suitable as an X-ray counter; in this application, with a 0.025 inch lead shield, it has a response to X rays which is almost constant for the low energy range of 67,000 to 200,000 electron volts. This tube is a useful high current counter in fields of medium to high intensities. In the higher intensities, in a suitable circuit with a series microammeter, it will give integrated current readings for fields of 0.01 to 60 R/hr.

Performance Data as a GM Counter

Operating Voltage *	(average at 20°C)	480 v
Plateau Length *	(average)	400 v
Plateau Slope *, **	% per 100v (average)	10 %
Shielded Background (in 2 inches of lead shielding)		4 cpm
Useful Life (counts)		>10 ⁹
Count Rate in 50 mR/hr field from radium source		20,000 cpm

Performance Data as a High Current Tube

Operating Potential	480 v
Current Range	0-50 uA
Working Fields	0.01-60 R/hr
Expectation of Life	>1000 hr at 45 uA

General Data

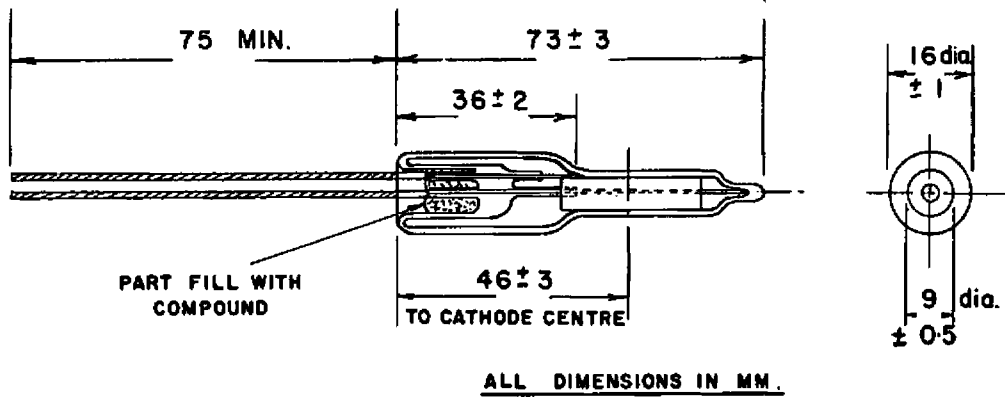
Operating Temperature Range	-50° to +60° C
Gas Filling	Neon argon/halogen
Cathode Material	Stainless Steel No. 446
Anode Material	Tungsten
Effective Cathode Dimensions	1 in. lg, 1/4 in. dia, 0.010 in. thk

NOTES * This is determined from a trace obtained from an Automatic Plateau Plotter. One trace is plotted for each tube.

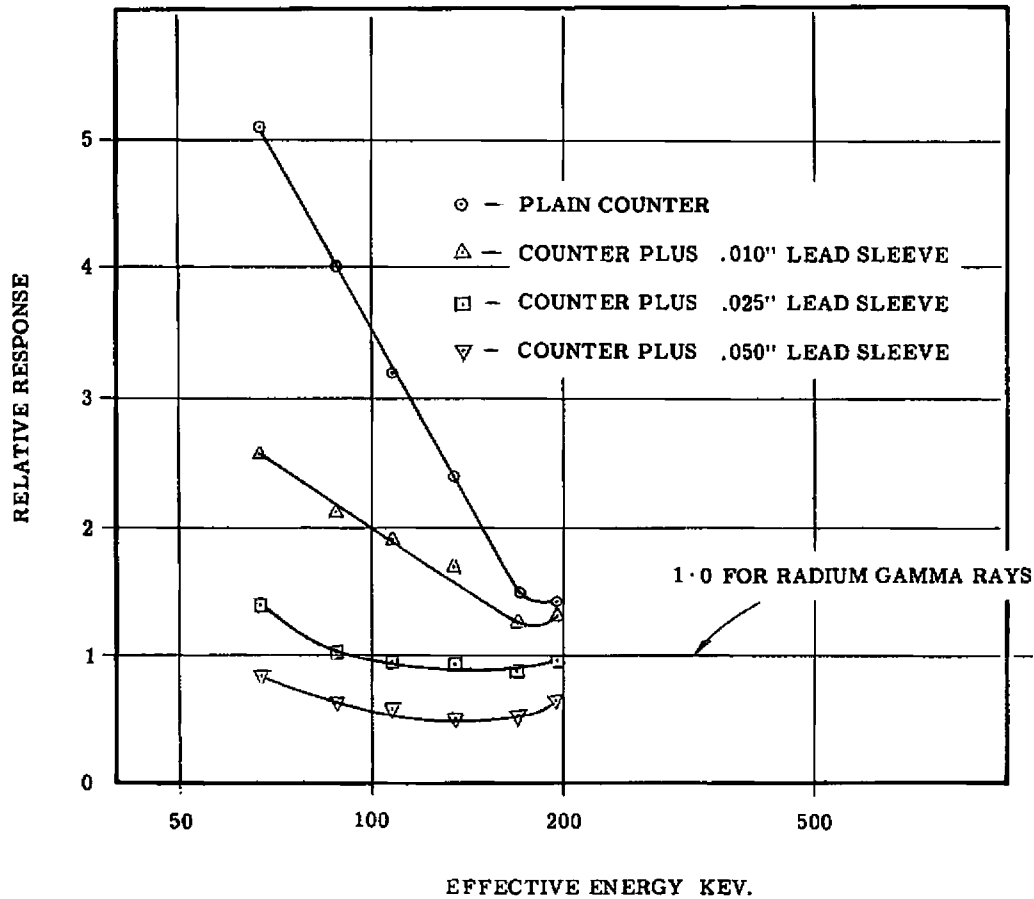
** At an average counting rate of 100 counts per second.



COUNTER TUBE 6916 (DH-1)



TYPE (DH-1) COUNTER ENERGY RESPONSE



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