

GEIGER-MÜLLER TUBE

Halogen quenched γ radiation counter tube.

QUICK REFERENCE DATA

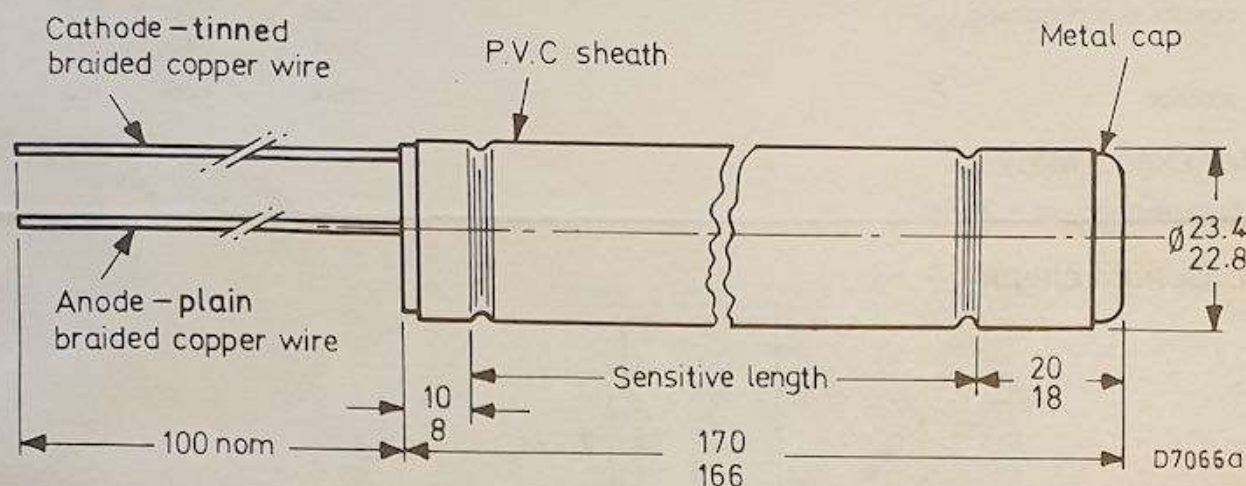
Dose rate range	4×10^{-4} to 2×10^{-1}	R/h
Plateau threshold voltage	400	V
Plateau length	100	V
Recommended supply voltage	450	V
Chrome-iron cathode	525	mg/cm ²

This data must be read in conjunction with 'General operational recommendations — Geiger-Müller tubes'.

MECHANICAL DATA

Dimensions in mm

Fig.1



Tube must not be clamped within 30 mm of either end.

CATHODE

Thickness	525	mg/cm ²
Sensitive length	140	mm
Material	chrome-iron	

FILLING

neon, argon, halogen

CAPACITANCE

Anode to cathode	4.5	pF
------------------	-----	----

MULLARD
TECHNICAL STOCKIST
ALRAD INSTRUMENTS
LIMITED
Newbury (0635) 30345
Telex : 847413



Mullard

April 1980

OPERATING CHARACTERISTICS (Ambient temperature $\approx 25^{\circ}\text{C}$)

Measured in circuit of Fig.2

Starting voltage	max.	350	V
Plateau threshold voltage	max.	400	V
Plateau length		100	V
Recommended supply voltage		450	V
Plateau slope	max.	0.15	%/V
Background (shielded with 50 mm Pb with an inner liner of 3 mm Al), at recommended supply voltage	max.	50	count/min.
Dead time, at recommended supply voltage	max.	200	μs

LIMITING VALUES (Absolute max. rating system)

Anode resistor	min.	2.7	$\text{M}\Omega$
Anode voltage	max.	500	V
Ambient temperature continuous operating	max.	+70	$^{\circ}\text{C}$
	min.	-40	$^{\circ}\text{C}$
storage	max.	+75	$^{\circ}\text{C}$

LIFE EXPECTANCY

Life expectancy at $\approx 25^{\circ}\text{C}$	5×10^{10}	count
---	--------------------	-------

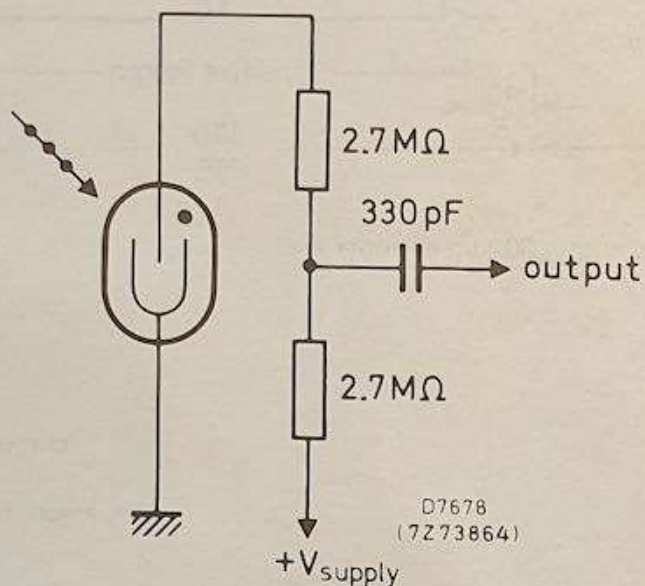
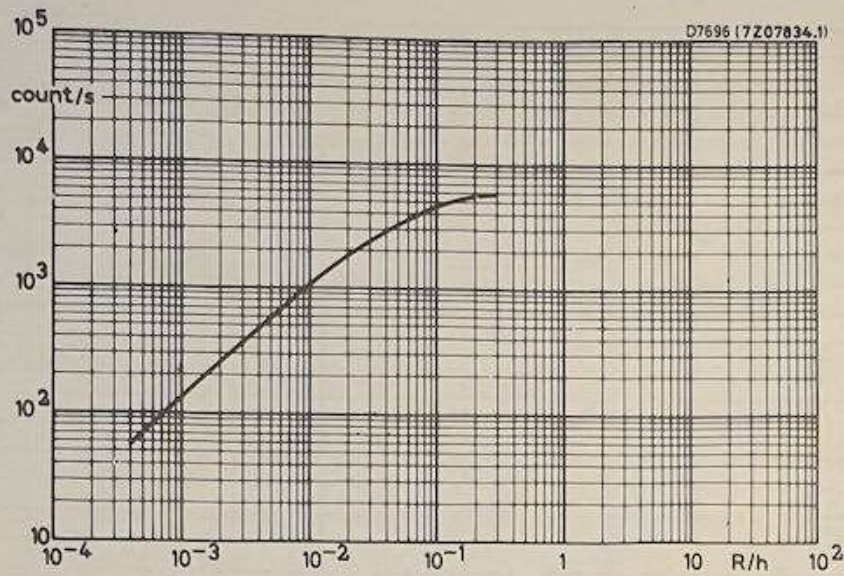
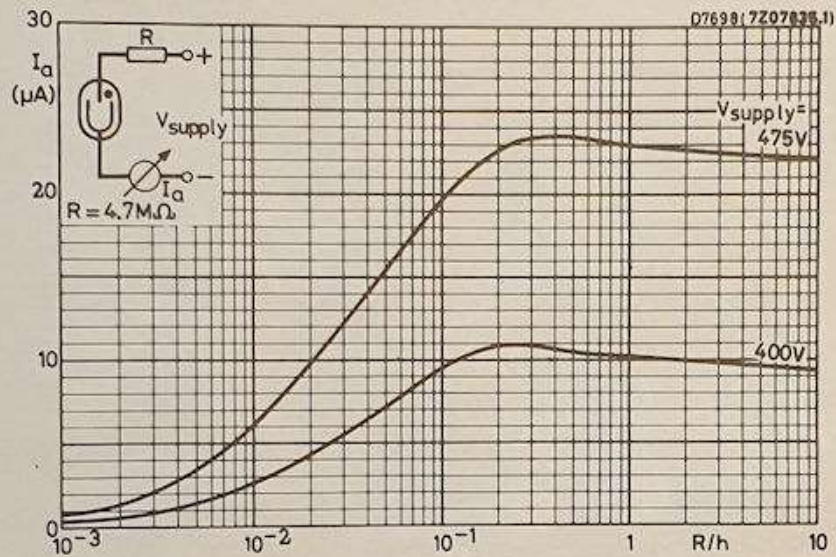
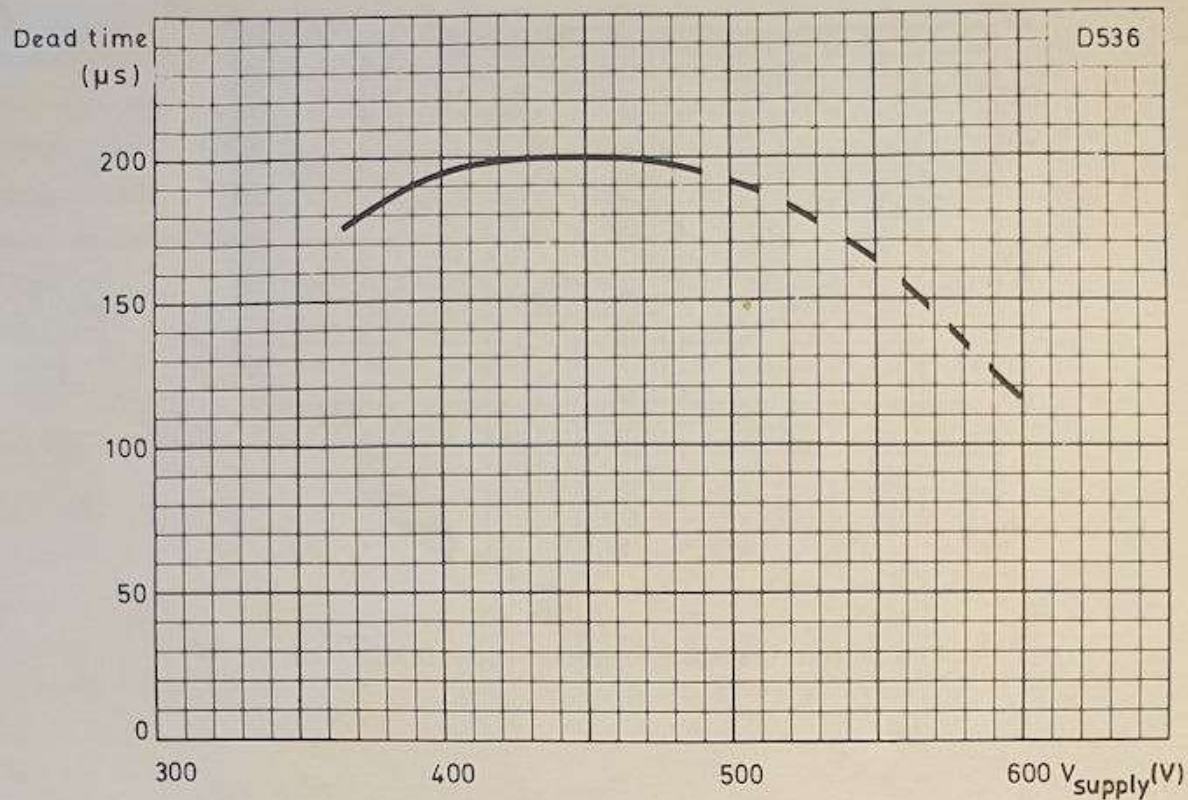
MEASURING CIRCUIT

Fig.2



Typical count rate as a function of dose rate (^{60}Co)Typical current as a function of dose rate (^{60}Co)



Typical dead time as a function of supply voltage

