

Geiger-Mueller Tube

Type 70 013 A

Order No. 013 00 07

Application

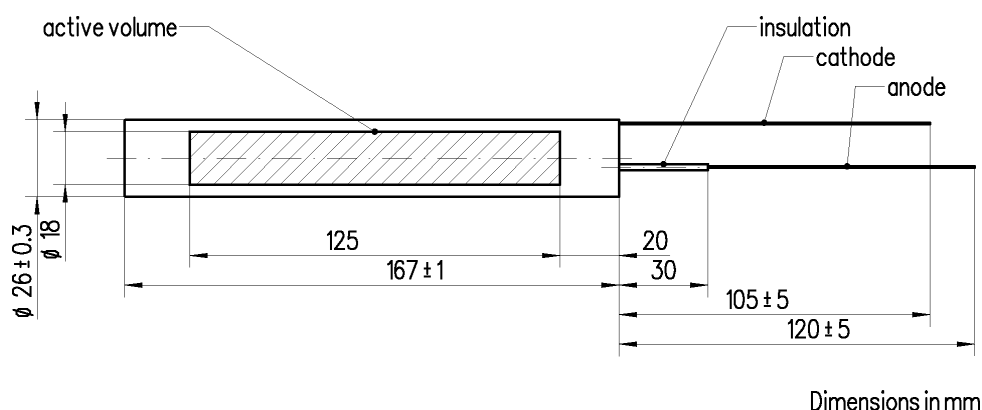
The gamma counter tube 70 013 A is a energy compensated version of Type 70 013. It is a halogen quenched Geiger-Mueller tube with high sensitivity.

It is suitable for dosimetry of the ambient dose equivalent $H^*(10)$ in the energy range from 35 keV to 1,3 MeV.

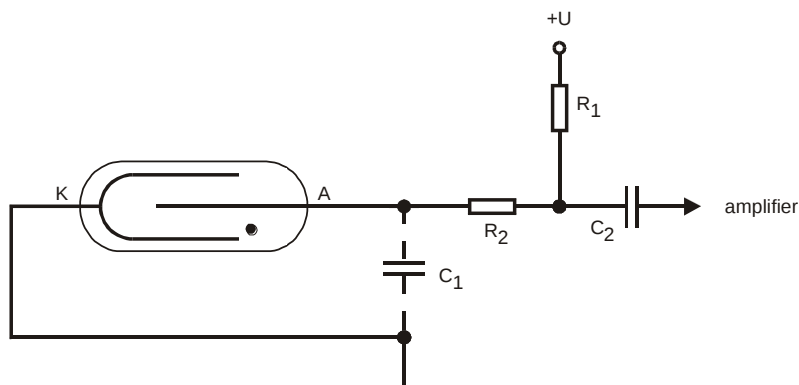
Construction Type

Protective can made of aluminium. With solderable wiring.

Mechanical Data



Measurement Circuit



Type 70 013 A

Order No. 013 00 07

Technical Data

(All data refer to 25 °C ambient temperature as well as to the recommended operation conditions)

Physical data

Sensitivity (related to ^{137}Cs)	7,5 cps / $\mu\text{Sv/h}$
Measuring range (^{137}Cs)	(0,3 ... 10^4) $\mu\text{Sv/h}$
Energy range	(0,035... 2) MeV
Background (shielded 5cm Pb + 0,2 cm Al)	≤ 60 counts/min
Length of active volume	125 mm
Cathode diameter	18 mm
Mass	118 g
Filling gas	Neon/Halogen
Life expectancy	$> 6 \cdot 10^{10}$ counts

Electrical data

Starting voltage	< 350 V
Plateau voltage range	(400 ... 600) V
Plateau length	> 200 V
Plateau slope	$< 10\%$ / 100V
Recommended supply voltage	450 V
Dead time ($R_2 = 5,1 \text{ M}\Omega$)	(70 ... 100) μs
Recommended anode resistor R_2	5,1 $\text{M}\Omega$

Limiting values

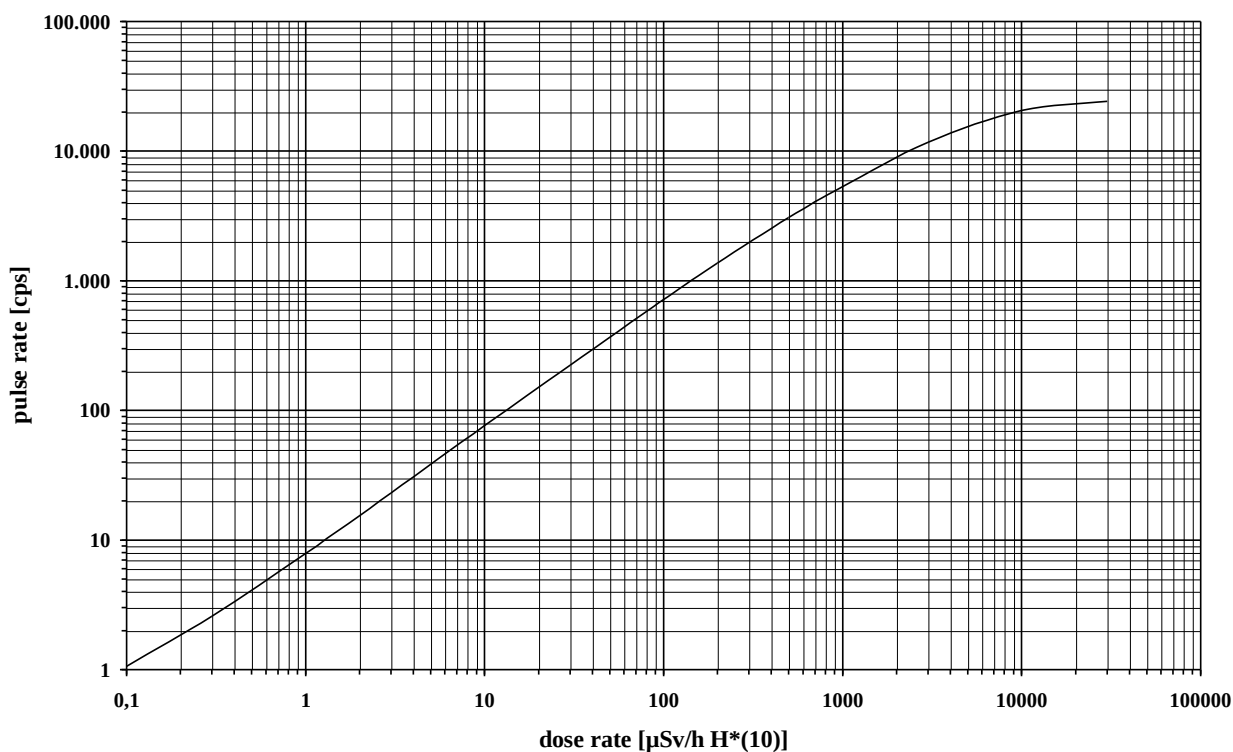
Storage temperature range	(-55 ... +70) °C
Operating temperature range	(-50 ... +70) °C



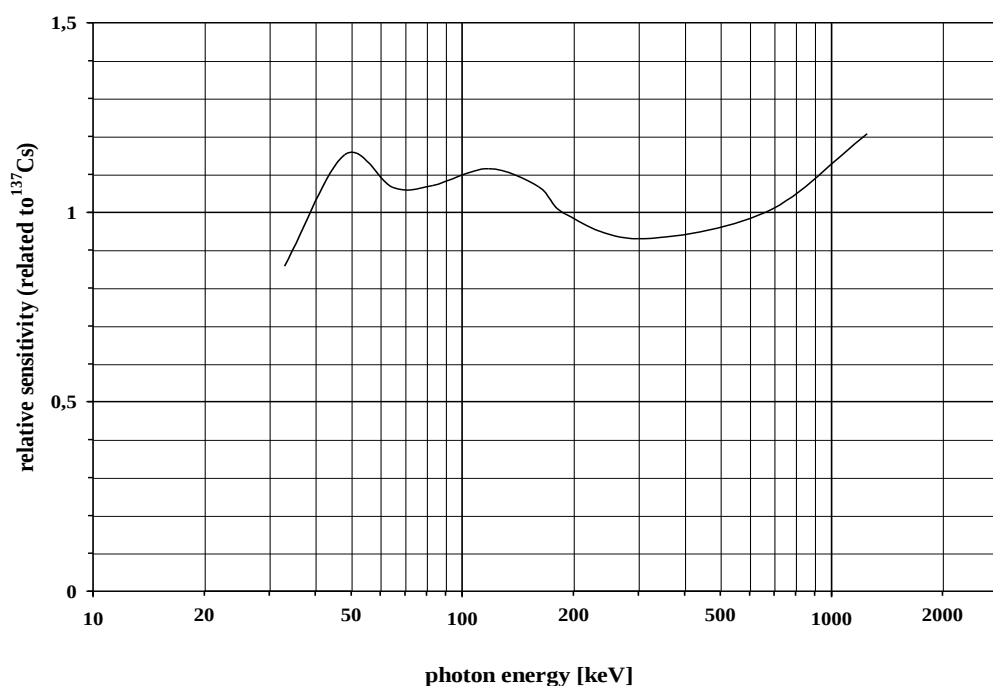
Count rate vs. dose rate (for ^{137}Cs)

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Order No. 013 00 07



Relative sensitivity vs. photon energy (related to ^{137}Cs)



We reserve the right to alter the specifications.

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Angular dependence

