



KG SERIES

Gamma Ionization Chambers



Nuclear
Power



Healthcare



Homeland
Security
& Defense



Labs and
Education



Industrial and
Manufacturing

OVERVIEW

Gamma radiation produces charged particles in the gas filling of an ionization chamber. Transportation of these particles in the electrical field between the electrodes generates a DC current, which can be measured in the external circuit.

The sensitivity of an ionization chamber is proportional to the gas quantity inside, and therefore to the specific mass of the gas and to the volume of the detector. But, the sensitivity is independent of temperature and environmental pressure.

KEY FEATURES

- Large measuring range
- Saturation proof
- Energy range: 60 or 80 keV to 3 MeV
- Output signal: DC current starting at 0.1 pA
- Long life time
- Versions KG ... P with check volume for remote testing
- Version KG 50 SEC for post accident conditions

RELATED PRODUCTS

- TK 250: digital signal processing channels
- GIM 202K: wide range gamma area monitor
- GIM 203K: wide range gamma area monitor
- GIM 206K: high range gamma area monitor

PREFERRED TYPES

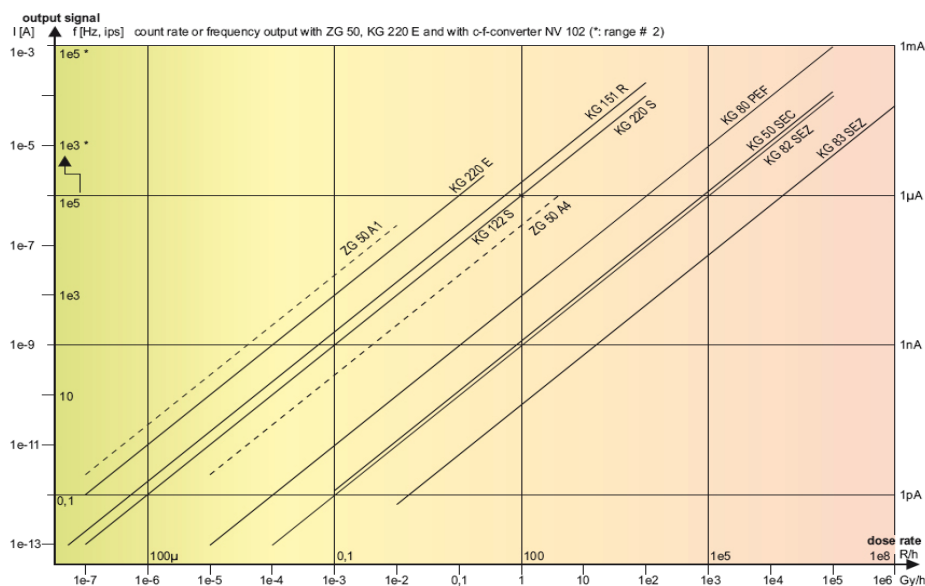
Type	Sensitivity A/(Sv/h)	Measuring Range (Sv/h)	Operating Temperature		Remarks
			Continuous	1h max.	
KG 50 SEC	1.1e-9	1e-3 ... 1e+5	0 ... 135°C (32 ... 275°F)	205°C (401°F) / 3 h	60 keV to 7 MeV
KG 80 PED KG 80 PEF KG 80 SAC	1e-8 1e-8 1e-9	1e-5 ... 1e+5 1e-5 ... 1e+5 1e-4 ... 1e+5	-25 ... 180°C (-13 ... 356°F) -25 ... 100°C (-13 ... 212°F) 0 ... 150°C (32 ... 302°F)	190°C (374°F) 120°C (248°F) 180°C (356°F)	1 bar; C 6 bar; T, C 60 keV up; T
KG 82 SEZ KG 83 SEZ	1e-9 6e-11	1e-4 ... 1e+5 1e-2 ... 1e+6	0 ... 120°C (32 ... 248°F) 0 ... 120°C (32 ... 248°F)	160°C (320°F) 160°C (320°F)	T T
KG 122 SBL KG 122 PEF	1e-6 1e-6	1e-7 ... 1 1e-6 ... 1	0 ... 80°C (32 ... 176°F) 0 ... 100°C (32 ... 212°F)	120°C (248°F)	E T, C
KG 151 RBF KG 151 REZ	2e-6 2e-6	1e-7 ... 100 1e-7 ... 100	0 ... 150°C (32 ... 302°F) -25 ... 150°C (-13 ... 302°F)	180°C (356°F) 180°C (356°F)	T T
KG 220 SEF KG 220 SEU KG 220 EEM	1e-6 1e-6 1e-6 Hz/Sv/h	1e-7 ... 100 1e-7 ... 100 1e-7 ... 0.3	-30 ... 100°C (-22 ... 212°F) -30 ... 120°C (-22 ... 248°F) 0 ... 80°C (32 ... 176°F)	120°C (248°F) 165°C (329°F)	T T With HV supply & c-f-converter

COMMON DATA

- Energy range: 80 keV to 3 MeV
- Detector voltage: 800 ... 1400 V, depending on version and range

E = Op. experience
T = type tested
C = with check volume

MEASURING RANGE AND OUTPUT SIGNALS



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