

Geiger Tube SBM-20



Among the russian tubes, this one is the favourite of ours to measure gamma and beta radiations, because it's the most sensitive to this kind of radiation in its price class. To further enhance the already good sensitivity, you may just parallel two devices and you get double sensitivity without any special circuit. Tubes come from russian warehouses: they're used, but checked for good operational status.

Chemical Specifications

- Gas filling: Neon + Bromine + Argon
- Stainless steel cathode

Mechanical Specifications

- External length: 108mm
- Effective tube length: 90mm
- External diameter: 11mm max
- Effective tube diameter: 9.5mm
- Wall density: 40 mg/cm²
- Wall thickness: 0.05mm

Physical Specifications

- Allowable temperature range: -60°C to +70°C
- Weight: 10 g

Electrical Specifications

- Anode resistor value: 1 MegaOhm min 5 MegaOhm typ
- Operative Voltage: 350V min 400V typ 475V max
- Initial Voltage: 260V min 320V max
- Plateau length: 100V min
- Plateau slope: 0,1%/V max
- Dead time: 190 uS min (@ 400V)
- Capacitance: 4,2 pF

- Life: 20 billion pulses

Radiation Measuring Specifications

- Working range: 0.004-40 $\mu\text{R/s}$ = 0.014-144 mR/h
- Gamma Ra226 sensitivity: 29 cps/mR/h
- Gamma Co60 sensitivity: 22 cps/mR/h
- Self own inherent Background: 1 cps