


# BDKG-05S Scintillation Gamma Radiation Detection Unit



## Description

BDKG-05S Scintillation Gamma Radiation Probe includes SC-38x38 (ScintiClear Ø1.5"x1.5") detector assembly with LED temperature stabilization, digital MCA, and RS232 communication interface.

BDKG-05S offers high energy resolution and can be used as part of stationary and mobile equipment and robotic devices.

DETECTION UNIT		BDKG-05S
Detector		Scintillator SrI <sub>2</sub> (Eu) Ø38.1x38.1 mm
Energy range		20 keV – 3 MeV
Typical resolution at 662 keV ( <sup>137</sup> Cs)		3.2%
Measurement range of ambient dose equivalent rate		30 nSv/h – 150 µSv/h
Limit of intrinsic relative measurement error		±15%
Energy dependence relative to 662 keV ( <sup>137</sup> Cs)		±20% (50 keV – 3 MeV)
Typical sensitivity to gamma radiation	<sup>241</sup> Am <sup>137</sup> Cs <sup>60</sup> Co	5500 cps/(µSv·h <sup>-1</sup> ) 850 cps/(µSv·h <sup>-1</sup> ) 450 cps/(µSv·h <sup>-1</sup> )
Response time for dose rate change from 0.1 to 1 µSv/h [accuracy error ≤±10%]		≤2 s
Spectrometry (Instrument spectrum)		+
Burn-up life		≥100 Sv
Number of ADC channels		1024
Protection class		IP67
Interface		USB / RS232 / RS485 / Bluetooth (via interface adapter)
Power supply		USB – USB port of a personal computer or other device; RS232 – 5–9 VDC power source; RS485 – 7–30 VDC power source; Bluetooth – interface adapter
Mean operating life		≥15 years
Operation temperature range		-20°C to +50°C
Relative humidity with air temperature ≤35°C without condensation		≤95%
Overall dimensions, weight		Ø60x282 mm, 0.9 kg
Image		

Design and specifications are subject to change without notice