Radiation Module STRATOradiation - Datasheet





The STRATOradiation radiation module plugs into the STRATO4 data logger and uses a Geiger-Müller tube to measure cosmic radiation during the stratospheric flight – all the way up to the Pfotzer maximum.

MADE IN GERMANY

Product name	**Radiation Module STRATOradiation**	
Item number	100920	
Model	STRATOradiation V1.0	
Compatibility	STRATO4 data logger with “Prepared for STRATOradiation” sticker (firmware V3.0.0 or later); older STRATO4 units can be retrofitted; not compatible with STRATOmini	
Dimensions	123 x 58 x 21 mm (4.84 x 2.28 x 0.83 in)	
Measured quantity	Count rate (counts per 10 s)	*Sensor:* Geiger-Müller tube M4011 See page 2 for details
Detectable radiation	Beta, gamma from 0.1 MeV (no alpha)	
Typical count rate on ground	approx. 2 - 4 counts/10 s	
Typical count rate Pfotzer max.	approx. 100 - 130 counts/10 s	
Typical altitude Pfotzer max.	approx. 18 - 20 km	
Maximum altitude	50,000 m	
Recording rate	0.5 Hz	
Display	STRATO4 display, LED and audible signal	
Power supply	5 V via the STRATO4 (no separate battery), current consumption approx. 5 mA	
Connector	JST PH, 5-pin, cable length 30 cm (11.8 in), reverse polarity protected	
Weight	approx. 59 g	
Storage temperature	-40 °C to +55 °C	
Operating environment	-10 °C to +55 °C	
Scope of delivery	Radiation module STRATOradiation; connection cable; instructions/ manual as PDF document	
Notes	Educational and experimental device; not a dosimeter, not intended for radiation protection. Contains no radioactive source. During operation, approx. 400 V are applied to the counter tube. The counter tube is a thin, fragile glass tube.	
Manufacturer	Stratoflights GmbH & Co. KG	

Datasheet version 1.0 · Issued: 11/2026

Radiation Module STRATOradiation - Datasheet

Counter Tube M4011

Type	Geiger-Müller tube, halogen-quenched
Length / diameter	88 mm / 10 mm (3.46 in / 0.39 in)
Intrinsic background	25 counts/min (approx. 4 counts/10 s)
Dead time	approx. 200 µs; no dead-time correction, counting loss at the Pfotzer maximum below 1 %
Operating voltage range	380 - 450 V
Operating temperature	-40 °C to +55 °C

Measurement and Analysis

High voltage at counter tube	approx. 400 V, generated and regulated by the module
Measurement	continuous; the count rate per 10 s is stored
Dose rate	not provided, as a conversion to µSv/h is not meaningful for cosmic radiation
Statistical uncertainty	± √N for N recorded counts (e.g. 100 ± 10 counts)
Data storage	microSD card of the STRATO4, together with GPS, altitude, temperature, air pressure and humidity
Analysis	Stratoflights online data logger evaluation tool

Datasheet version 1.0 · Issued: 11/2026