LUDLUM

RDS Base Unit

Survey meter and common base unit for the RDS probes

The Base Unit of Ludlum's Radiological Detection System (RDS, AN/PDR-83) measures gamma and beta radiation with two GM tubes and is the common display and data logger for the system's six probes. The probes carry their own calibration and can be swapped during operation without recalibration.



Detector type	Energy range	IP rating
Low-dose and high-dose Geiger-Mueller tubes [1]	**Photons 60 keV – 3 MeV; beta 200 keV – 3 MeV** [1]	**IP67** [1]

Specifications

DETECTOR

Detector type	Low-dose and high-dose Geiger-Mueller tubes	[1]

MEASURING RANGE

Dose-rate range	0.1 µGy/h – 100 Gy/h (gamma/X-ray)	[1]
Energy range	Photons 60 keV – 3 MeV; beta 200 keV – 3 MeV	[1]
Dose measurement range	0.01 µSv – 10 Sv (1 µrem – 1000 rem)	[1]

CONNECTIVITY & INTERFACE

Data storage	Readings with date, time and location; over 45 hours	[1]
Display	High-contrast, impact-resistant LCD, readable in direct sunlight	[1]

POWER & BATTERY

Power supply	4 AA batteries or AC power supply	[1]

MECHANICAL

Housing material	Anodised cast aluminium	[1]

ENVIRONMENT & RATINGS

Operating temperature	−30 to 50 °C	[1]
Storage temperature	−50 to 60 °C	[1]
Humidity	3–100% relative humidity	[1]
IP rating	IP67	[1]

ORDERING & ACCESSORIES

Part number	V038429	[1]

GENERAL

Alarm	Audible and visual	[1]
Standards met	ANSI N42.17 and N42.34; MIL-STD 461F, 1686C and 810G	[1]
NATO Stock Number (NSN)	6665-01-671-4539	[1]

Sources

[1] **RDS Base Unit data sheet (V038429)**
Ludlum Measurements · datasheet · p. 2, Radiological; p. 2, Radiological – Detection; p. 2, Radiological – Data · checked 2026-11-16
https://www.ludlum-slc.com/base-unit_v038429/

Every value is taken from the manufacturer's own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer's published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.