ELSE NUCLEAR

GM-1/MERCURY

Geiger-Müller gamma detectors for fixed monitoring

Gamma detectors with energy-compensated Geiger-Müller tubes in rugged aluminium cylinders with built-in HV. GM-1 has one tube and measures up to 1 mSv/h; MERCURY has two tubes and switches automatically to reach 1 Sv/h. They connect to a SATURN ratemeter and can be networked to a PC running 5700 sMON.



Detector type	Energy range	Weight
Energy-compensated GM tubes; GM-1 one tube, M ERCURY two tubes with a utomatic switching by count r ate [1]	**40–1300 keV** [2]	**<1 kg** [2]

Specifications

DETECTOR

Detector type	Energy-compensated GM tubes; GM-1 one tube, MERCURY two tubes with automatic switching by count rate	[1]

PERFORMANCE

Linearity	Deviation <10% from 100 nSv/h to 100 mSv/h	[2]

MEASURING RANGE

Dose-rate range	GM-1: 100 nSv/h–1 mSv/h; MERCURY: 100 nSv/h–1 Sv/h	[2]
Energy range	40–1300 keV	[2]
Energy response	+30/−20%	[2]

CONNECTIVITY & INTERFACE

Communication	GM-1: TTL output or RS485; MERCURY: RS232 or RS485 (ZigBee wireless on request)	[2]

MECHANICAL

Dimensions	GM-1: Ø40 × 196 mm; MERCURY: Ø70 × 420 mm	[2]
Weight	<1 kg	[2]

ENVIRONMENT & RATINGS

perating temperature	−25 to +50 °C	[2]
Humidity	Up to 95%, non-condensing	[2]

ORDERING & ACCESSORIES

ptions	ZigBee (MERCURY); on request IP65 housing (MERCURY), battery-operated PS-ZB station with ZigBee and GPS, airtight duct holder GM-ATH (GM-1), wall mounting and traceable calibration (^{137}Cs)	[2]

GENERAL

Compatibility	Connects to a SATURN ratemeter providing power, signal processing and display; units can be networked to a PC running 5700 sMON; a stand-alone v ersion for direct PC connection is available	[1]

Sources

[1] **GM-1, MERCURY Geiger-Müller-based Gamma Detectors**
ELSE NUCLEAR · product-page · Product page · checked 2026-10-16
https://www.elsenuclear.com/portfolio/gm-1-mercury/

[2] **GM-1, MERCURY Geiger-Müller-based Gamma Detectors (datasheet)**
ELSE NUCLEAR · datasheet · p. 2, Technical Specifications · checked 2026-10-16
https://www.elsenuclear.com/wp-content/uploads/2025/05/DAT_GEIGERDET_EN_1.09.pdf

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.