LUDLUM

Ludlum 12-4-7

Portable neutron meter

Ludlum 12-4-7 – portable neutron meter from Ludlum Measurements. Measurement range: 0 to 100 mSv/h (0 to 10,000 mrem/hr). Weight as specified: 5.4 kg with batteries.



Detector
^{3}He proportional detector, 1. 6 × 2.5 cm (D × L), surr ounded by a 19.5 cm diame ter polyethylene sphere with internal borated layer [1]

Measurement range
0 to 100 mSv/h (0 to 10,000 m rem/hr) [1]

Weight as specified
.4 kg with batteries [1]

Specifications

DETECTOR

Detector	^{3}He proportional detector, 1.6 × 2.5 cm (D × L), surrounded by a 19.5 cm diameter polyethylene sphere with internal borated layer	[1]

PERFORMANCE

Linearity	Reading within 10 % of actual value	[1]

MEASURING RANGE

Measurement range	0 to 100 mSv/h (0 to 10,000 mrem/hr)	[1]
Neutron sensitivity (bare ^{241}AmBe)	Typically 10 cpm per µSv/h (100 cpm per mrem/hr)	[1]

ELECTRONICS & SIGNAL

Detector bias	Adjustable from 400 to 2500 V (can be read on meter)	[1]

POWER & BATTERY

Power supply	2 "D" cell batteries	[1]
Battery life and conditions	Typically 600 hours with alkaline batteries	[1]

MECHANICAL

Dimensions (H × W × L)	38.9 x 19.6 x 22.9 cm	[1]
Weight as specified	5.4 kg with batteries	[1]

ENVIRONMENT & RATINGS

perating temperature	-20 to 50 °C	[1]

Sources

[1] **Model 12-4-7 Neutron Dose Survey Meter**
Ludlum Measurements · product-page · Specifications tab, 'Detector'; Specifications tab, 'Measurement Range'; Specifications tab, 'High Voltage' · checked 2026-10-16
https://ludlums.com/products/all-products/product/model-12-4-7

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.