ROTEM

Neutron Area Monitor

Wall-mounted neutron detector (Ludlum 42-30H) for area monitoring in WebiSmarts

Wall-mounted proportional neutron detector for area monitoring, supplied by Rotem for its systems. The detector is a Ludlum Model 42-30H in a 25.4 cm polyethylene sphere and detects thermal and fast neutrons, from 0.025 eV to approximately 12 MeV, through nuclear reactions that produce charged particles.



Detector
Proportional neutron detector Ludlum Model 42-30H; moderator: polyethylene sphere ø25.4 cm [1]

Energy range
Thermal to approx. 12 MeV [1]

Weight
8.8 kg (19.5 lb) [1]

Specifications

DETECTOR

Detector	Proportional neutron detector Ludlum Model 42-30H; moderator: polyethylene sphere ø25.4 cm	[1]
Gamma rejection	10 cpm or less up to 0.1 Sv/h (10 R/h)	[1]

MEASURING RANGE

Energy range	Thermal to approx. 12 MeV	[1]
Energy response	Approximately follows the radiation protection guide curve for neutron dose	[2]
Sensitivity	Typically 20,000 cpm per mSv/h (200 cpm per mrem/h), AmBe	[1]

ELECTRONICS & SIGNAL

Detector high voltage	Typically 1,200 V	[1]

MECHANICAL

Mounting	Wall mount (bracket included)	[2]
Dimensions	38.1 × 25.4 × 26.2 cm (H × W × L) including bracket	[1]
Weight	8.8 kg (19.5 lb)	[1]

ENVIRONMENT & RATINGS

Operating temperature	−15 to +50 °C	[1]

ORDERING & ACCESSORIES

Ordering code	BAK-2459; 42-30 detector with wall bracket BAK-1290	[1]

Sources

[1] Neutron Detector (Ludlum) data sheet
Rotem Industries · datasheet · TDS · checked 2026-10-16
https://rotem-radiation.co.il/wp-content/uploads/2025/07/BAK-2459-Neutron-Area-Monitor-Ludlum-14032021.pdf

[2] Neutron Area Monitor
Rotem Industries · product-page · Product page – Technical Information · checked 2026-10-16
https://rotem-radiation.co.il/solution/neutron-area-monitor-42-30/

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.