

WebiSmarts System

Neutron Detector (Ludlum) CAT: BAK-2459

Radiation Detection Division

The Ludlum Model 42-30H Neutron Detector is designed for detection of thermal and fast neutrons (0.025 eV to approximately 12 MeV). The neutrons are detected, not directly, but through nuclear reactions, which result in energetic charged particles such as protons and tritons.

The Neutron detector contains its calibration factor inside the Adapter along with identifying features. The Adapter is connected to the detector through a coax cable and needs to be installed in close proximity to the neutron detector.

Detection Range: Thermal to approx. 12 MeV

Features

- Internal calibration factor
- Unique "electronic" identifier
- Quick Connect plug

Related Products

GM-41 Detector

BAK-1190



GM-42 Detector

BAK-1210



PM-11 Detector

BAK-1510



Stack Flow Meter

BAK-1151



Neutron Area Neutron Detector

Includes:

42-30 Neutron Detector + Wall Bracket
BAK-1290

Cable LAP-10H to Detector MHV 0.3m
BEN-1295

Neutron Adapter Box
BAK-1276



Indicated Use	Neutron detection, area monitoring
Description	Wall mount proportional neutron detector
Moderator	25.4 cm (10.0 in.) diameter polyethylene sphere
Detection Range	Thermal to approximately 12 MeV
Energy Response	Approximately follows the radiation protection guide curve for neutron dose
Sensitivity	Typically 20,000 cpm/mSv/h (200 cpm per mrem/hr) (AmBe)
Gamma Rejection	10 cpm or less through 0.1 Sv/h (10 R/hr)
Operating Voltage	Typically 1200 V THRESHOLD
Temperature Range	-15 °C to 50 °C (5 °F to 122 °F)
Construction	Polyethylene moderator with aluminum housing and mounting bracket
Size	38.1 x 25.4 x 26.2 cm (15.0 x 10.0 x 10.3 in.) (H x W x L), including bracket
Weight	8.8 kg (19.5 lb)

ROTEM INDUSTRIES reserves the right to change specifications without advance notice