



DETECTORS

TN-15™

High Sensitivity Ultra-compact Thermal Neutron Detector

The TN-15 high sensitivity thermal neutron detector utilizes a state-of-the-art Silicon photosensor (SiPM) and offers world-leading specification in a compact form.



High
Sensitivity and
Ultra-compact

FEATURES

- Surpasses the performance of a 100 mm long, 13 mm diameter He^3 tube at four atmospheres
- All-in-one detector, electronics, and MCA
- Miniaturized package: 131 x 33 x 24 mm, 110 g
- USB Connection to PC for control and power
- Power consumption: <250 mW

DESCRIPTION

The TN-15 high sensitivity thermal neutron detector utilizes a state-of-the-art Silicon photosensor (SiPM) and offers world-leading specification in a compact form. The TN-15 detector surpasses the performance of a 100 mm long 13 mm He^3 tube at four atmospheres.

This highly compact device is completely self-contained, with a built-in preamplifier, shaping amplifier, pulse discrimination, and HV supply. The digitized neutron data is sent to a PC via the mini-USB which also powers the unit, so no external power supply is required.

The TN-15 detector comes with K-Spect, Kromek's entry-level Windows-based software, built for detailed sample and spectral analysis.

K-Spect, which is available to download, free of charge, from the Mirion and Kromek websites, provides the spectrum acquisition, display, analysis, and storage functions.

SPECIFICATIONS

Performance

- Detector: Neutron Sensitive Scintillator with SiPM detector
- Intrinsic efficiency: >50%
- Maximum throughput: 10,000 cps

Physical

- Housing size: 131 x 33 x 24 mm (5.16 x 1.3 x 0.9 in.)
- Weight: 110 g (3.9 oz)

Inputs/Outputs

- USB (mini USB Connector): Signal and Power
- Power consumption: 250 mW

Environmental

- Operating temperature range: -10° to +40 °C (+14 to +104 °F)

ORDERING INFORMATION

TN-15	Compact Thermal Neutron Detector
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OTHER RANGER FAMILY PRODUCTS

GR1™ Device

GR1 Gamma-Ray Spectrometer with

- 2.5% FWHM resolution at 662 keV
- Without MCX I/O ports

GR1+™ Device

GR1+ Gamma-Ray Spectrometer with

- 2.0% FWHM resolution at 662 keV
- Without MCX I/O ports

GR1-A™ Device

GR1-A Advanced Gamma-Ray Spectrometer with

- 2.5% FWHM resolution at 662 keV
- With MCX I/O ports (includes 3x MCX to BNC adaptors)

GR1-A+™ Device

GR1-A+ Advanced Gamma-Ray Spectrometer with

- 2.0% FWHM resolution at 662 keV
- With MCX I/O ports (includes 3x MCX to BNC adaptors)

ISXCZT-GR1

Generic ISOCS Characterization for the GR1, GR1+, GR1-A or GR1-A+ units

SIGMA25

USB enabled CsI scintillator (1" x 1" x 1") detector with integrated MCA

ISXCSI25

Generic ISOCS Characterization for the SIGMA25

SIGMA50

USB enabled CsI scintillator (1" x 1" x 2") detector with integrated MCA

ISXCSI50

Generic ISOCS Characterization for the SIGMA50

LAB CPG (10 x 10 x 10)

1 cm³ CZT detector for use with external MCA electronics

ISXCZT-LAB1000

Generic ISOCS Characterization for the LAB CPG (10 x 10 x 10)

