ORTEC

TETRAD-20 HPGe-detektor

HPGe gamma detector

N-type clover detector with four HPGe crystals for nuclear physics measurements that need high efficiency within a limited geometry.



Energy range	Relative efficiency	Energy resolution at 122 keV
20 keV–10 MeV [2]	**TETRAD-20: 20% per detector element** [1]	**TETRAD-20: ≤1.30 keV FWHM per element** [1]

Specifications

DETECTOR

Detector type	N-type coaxial HPGe, clover geometry	[1]
Detector elements	4	[2]

PERFORMANCE

Relative efficiency	TETRAD-20: 20% per detector element	[1]
Energy resolution at 122 keV	TETRAD-20: ≤1.30 keV FWHM per element	[1]
Energy resolution at 1.33 MeV	TETRAD-20: ≤2.25 keV FWHM per element	[1]

MEASURING RANGE

Energy range	20 keV–10 MeV	[2]

ELECTRONICS & SIGNAL

Preamplifier	4, with independent bias control	[2]

COOLING

Cooling	LN_2; TETRAD-20 dewar minimum 5 litres	[1]
LN_2 holding time	TETRAD-20: approximately 12 hours	[1]

MECHANICAL

Endcap	Aluminium	[1]

Sources

[1] **TETRAD-20 – Maximum Absolute Efficiency in a Limited Geometrical Space for a Wide Range of Energies**
RTEC (AMETEK) · brochure · pp. 2–3; p. 4, Specifications; p. 3 · checked 2026-10-16
https://edge.sitecorecloud.io/ametekinc1236b-ametekb19a-productiondcfa-1d17/media/Project/Ametek/ortec-onlin...

[2] **TETRAD N-type High Purity Germanium (HPGe) Detector for Nuclear Physics Applications**
RTEC (AMETEK) · product-page · Product page intro; Feature list · checked 2026-10-16
https://web.archive.org/web/20261016000000/https://www.ortec-online.com/products/radiation-detectors/high-pu…

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.