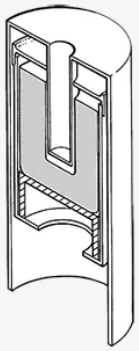
ORTEC

GWL brunnsdetektorer

HPGe gamma detector

HPGe well detectors for low-level measurement of small samples placed inside the detector well.



Detector type
P-type reverse coaxial HPGe well detector [1]

Energy range
Approximately 10 keV–10 MeV [1]

Specifications

DETECTOR		
Detector type	P-type reverse coaxial HPGe well detector	[1]
Active germanium volume	90–450 cm³ for models in the configuration guide	[2]
PERFORMANCE		
Resolution measurement geometry	Point source in the well, 1 cm from its bottom	[2]
MEASURING RANGE		
Energy range	Approximately 10 keV–10 MeV	[1]
ELECTRONICS & SIGNAL		
Preamplifier	ptional remote -HJ	[1]
MECHANICAL		
Sample well diameter	10 or 15.5 mm depending on model	[2]
Endcap	Aluminium as standard; OFHC copper with high-purity aluminium well tube (0.02 in wall) on low-background -LB-AWT/-XLB-AWT options	[2]
ORDERING & ACCESSORIES		
Cryostat configurations	Streamline	[2]
Cooling and accessories	Cryostat and dewar or other cooling device required for operation; not included with the detector. A cryostat must be ordered with a Streamline detector.	[2]
GENERAL		
Sample well depth	40 mm	[2]
Entrance contact	Ion-implanted well with 0.3 µm dead layer	[1]

Models

Model	Active germanium volume	Sample well diameter	Energy resolution at 122 keV	Energy resolution at 1.33 M eV
GWL-90-10	90 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-90-15	90 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-110-10	110 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-110-15	110 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-120-10	120 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-120-15	120 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-130-10	130 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-130-15	130 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-150-10	150 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-150-15	150 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-170-10	170 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-170-15	170 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-190-10	190 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-190-15	190 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-220-10	220 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-220-15	220 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-250-10	250 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.1 keV FWHM [2]
GWL-250-15	250 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-280-10	280 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.2 keV FWHM [2]
GWL-280-15	280 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-300-10	300 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.2 keV FWHM [2]
GWL-300-15	300 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-350-10	350 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.2 keV FWHM [2]
GWL-350-15	350 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-400-10	400 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.2 keV FWHM [2]
GWL-400-15	400 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]
GWL-450-10	450 cm³ (nominal) [2]	10 mm (nominal) [2]	≤ 1.2 keV FWHM [2]	≤ 2.2 keV FWHM [2]
GWL-450-15	450 cm³ (nominal) [2]	15.5 mm (nominal) [2]	≤ 1.4 keV FWHM [2]	≤ 2.3 keV FWHM [2]

Model	Endcap diameter
GWL-90-10	70 mm (nominal) [2]
GWL-90-15	70 mm (nominal) [2]
GWL-110-10	70 mm (nominal) [2]
GWL-110-15	70 mm (nominal) [2]
GWL-120-10	70 mm (nominal) [2]
GWL-120-15	70 mm (nominal) [2]
GWL-130-10	70 mm (nominal) [2]

GWL-130-15	70 mm (nominal) [2]
GWL-150-10	83 mm (nominal) [2]
GWL-150-15	83 mm (nominal) [2]
GWL-170-10	83 mm (nominal) [2]
GWL-170-15	83 mm (nominal) [2]
GWL-190-10	83 mm (nominal) [2]
GWL-190-15	83 mm (nominal) [2]
GWL-220-10	95 mm (nominal) [2]
GWL-220-15	95 mm (nominal) [2]
GWL-250-10	95 mm (nominal) [2]
GWL-250-15	95 mm (nominal) [2]
GWL-280-10	95 mm (nominal) [2]
GWL-280-15	95 mm (nominal) [2]
GWL-300-10	95 mm (nominal) [2]
GWL-300-15	95 mm (nominal) [2]
GWL-350-10	95 mm (nominal) [2]
GWL-350-15	95 mm (nominal) [2]
GWL-400-10	108 mm (nominal) [2]
GWL-400-15	108 mm (nominal) [2]
GWL-450-10	108 mm (nominal) [2]
GWL-450-15	108 mm (nominal) [2]

Sources

[1] **GWL (Well) P-type Reverse Coaxial Radiation Detectors**
RTEC (AMETEK) · product-page · Page heading; Product page intro; Options · checked 2026-10-16
https://web.archive.org/web/20261016000000/https://www.ortec-online.com/products/radiation-detectors/high-pu...

[2] **GWL Series Coaxial HPGe Detector – Product Configuration Guide**
RTEC (AMETEK) · datasheet · p. 7, 'Ordering Information and Warranted Specifications'; p. 7; p. 2, Configuration Guidelines · checked 2026-10-16
https://edge.sitecorecloud.io/ametekinc1236b-ametekb19a-productiondcfa-1d17/media/Project/Ametek/ortec-onlin...

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.