



Product Information



PGT IGC SERIES P-TYPE HIGH-PURITY GERMANIUM COAXIAL DETECTORS



PGT P-type HPGe detectors have proven themselves worldwide over many years of unfailing service. They exhibit excellent energy resolution and peak symmetry over a broad energy range. Relative efficiencies of <10% to >100% are available.

The coaxial HPGe crystal has an N⁺ lithium diffusion layer on the outside and a P⁺ layer as the center core contact. This results in a large volume detector with a useable energy range of ~45 keV to several MeV. PGT's leadership in mounting technology assures low-noise operation across the useable energy range.

These rugged detectors come in a variety of cryostat configurations for laboratory or portable applications. They can also be used with PGT's JT Cooler, for freedom from cumbersome LN₂ dewars and supplies.

Resolution is uncompromised, no matter how often or for how long the detector is warmed to room temperature. IGC-series detectors are the true mainstay of the spectroscopy laboratory.

For applications ranging from ultra low activity physics experiments to the harshest field or industrial environments, PGT can design the detector system best suited to your needs. Please call for details and exact quotations.

Standard Features:

- P-type high-purity germanium
- Vertical dipstick cryostat
- 30 liter dewar
- Aluminum endcap
- RG-11 B/C resistive feedback preamplifier
- 12-ft. bias, signal and power cables
- Unlimited temperature cycling without loss of resolution

Options:

- Cryostat configurations to meet your needs
- Portable and mechanically cooled systems
- Ultra-low microphonic QUIET-ONE™ crystal mounting
- Low-background materials
- Transistor reset preamplifiers for high count rates
- Low-power preamplifiers

IGC Series Detector Specifications

Model Number	Relative Efficiency	Resolution (FWHM)		Peak/Compton	Peak shape FWT M/F WHM
		@122 keV (eV)	@1.33 MeV (keV)		
IGC 10175	10%	800	1.75	42:1	1.90
IGC 10185	10%	850	1.85	39:1	1.95
IGC 10200	10%	900	2.00	37:1	2.00
IGC 15180	15%	800	1.80	47:1	1.90
IGC 15190	15%	900	1.90	45:1	1.95
IGC 15200	15%	950	2.00	42:1	2.00
IGC 20180	20%	825	1.80	52:1	1.90
IGC 20190	20%	900	1.90	49:1	1.95
IGC 20200	20%	975	2.00	46:1	2.00
IGC 25185	25%	850	1.85	55:1	1.90
IGC 25195	25%	950	1.95	53:1	1.95
IGC 25200	25%	1000	2.00	50:1	2.00
IGC 30185	30%	860	1.85	58:1	1.90
IGC 30195	30%	950	1.95	56:1	1.95
IGC 30200	30%	1000	2.00	54:1	2.00
IGC 35190	35%	875	1.90	60:1	1.90
IGC 35200	35%	1000	2.00	58:1	2.00
IGC 40190	40%	875	1.90	62:1	1.90
IGC 40200	40%	1000	2.00	58:1	2.00
IGC 45195	45%	900	1.95	64:1	1.90
IGC 45200	45%	1000	2.00	60:1	2.00
IGC 50195	50%	950	1.95	65:1	1.90
IGC 50200	50%	1000	2.00	63:1	2.00
IGC 55195	55%	1000	1.95	67:1	2.00
IGC 55210	55%	1200	2.10	64:1	2.00
IGC 60195	60%	1000	1.95	70:1	2.00
IGC 60210	60%	1200	2.10	66:1	2.00
IGC 70200	70%	1000	2.00	75:1	2.00
IGC 70215	70%	1200	2.15	70:1	2.00
IGC 80220	80%	1200	2.20	70:1	2.00
IGC 90220	90%	1400	2.20	74:1	2.00
IGC 100230	100%	1400	2.30	74:1	2.00

Applications:

- Environmental sample counting
- Nuclear powerplant radiochemistry analysis
- Field environmental spectroscopy applications
- Physics experiments
- Industrial on-line monitoring

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