

Model MPS and Gravity Feed Portable Cryostats



ITECH INSTRUMENTS offers two lines of high-resolution portable germanium detectors for gamma and X-ray spectroscopy.

Both the Multi-Use Portable Spectrometer' (MPS) and the Gravity Feed (GF) series of portable cryostats will work with all ITECH INSTRUMENTS HPGe coaxial and planar detectors and Si(Li) detectors in all attitudes without risk of liquid nitrogen spillage.

ITECH INSTRUMENTS portable detectors are suited for applications where space is a constraint, emergency response situations or laboratory applications.

Additional uses include environmental analysis, whole body counting, in-vivo lung monitoring and nuclear high-spin experimentation. Both portable cryostats are compatible with portable MCAs as well as standard multi-channel analyzers and NIM bin modules.

Multi-Use Portable Spectrometer

The Multi-Use Portable Spectrometers (MPS) is designed for lightweight, hand held operation or for stable bench top work. Its flat base design permits the detector to face either vertically or horizontally while in operation or during LN₂ transfer.

The stainless steel construction allows for simple decontamination, yet the unit is lightweight and rugged to handle all field situations. The MPS features an internal temperature sensor in the cryostat for high voltage shut-off protection in the event of accidental warm-up.

The detector is designed to work with either a pressurized or manual LN₂ filling system. Typical holding times and LN capacity are shown below:

MPS Specifications		
Model	Holding time	LN ₂ Capacity
MPS	16-24 hrs.	1.2 liters
MPS 5	72 hrs.	5 liters
MPS 7.5	100 hrs.	7.5 liters

Gravity Feed Portable Spectrometer

The Gravity Feed (GF) series of portable cryostats for germanium and silicon detectors offers users an instrument that is always ready for use when needed,

The aluminum cryostat is lightweight and the detachable handle allows for ease of use in a variety of applications.

The GF and its associated feeder dewar can be used in a static, down-looking position or can be detached in a minute for emergency response. Spill contamination and wound monitoring are only a few of possible applications for this versatile instrument.

Like the MPS, the Gravity Feed cryostats are available in a variety of sizes for different holding time requirements.

Please contact ITECH INSTRUMENTS to discuss your particular requirements.

ITECH INSTRUMENTS offers several options which allow you to tailor these portable detectors to meet your specific needs:

ITECH INSTRUMENTS Portable Cryostat Options

Construction

Choice of aluminum or stainless steel

Preamplifier Configuration

Available in either in-line or conventional mounting in all styles: resistive feedback or transistor reset (X-ray only).

LN₂ Auto Fill or Manual Fill Systems

This combination has kept portable detectors ready for immediate use for over ten years.

The GF unit employs a gravity feed fill system by directly coupling the detector cryostat to a 30 liter Mother dewar.

Low background Materials

High-purity copper, low background electronics and internal shielding are available to eliminate background radiation contribution.

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