



# **HPGe Detectors with electro-mechanical cooling MONOLITH**

# HPGe Detectors MONOLITH

(electro-mechanical cooler)



### DESCRIPTION

The Monolith system provides electro-mechanical cooling for HPGe detectors, eliminating the need for liquid nitrogen. Based on a Stirling cooler with a mean time to failure for thousands of hours, Monolith offers efficient, low-power operation with minimal heat output. Unlike LN2 systems, Monolith enables instant recovery after power loss and ensures continuous performance without thermal cycling. Integrated Active Vibration Cancellation maintains resolution quality close to LN2-cooled systems. The Monolith system is suitable for a range of applications requiring stable, maintenance-free cryogenic operation, including laboratory, field, and industrial environments.

### FEATURES

- 10% - 160% efficiency HPGe p-type coaxial detectors are available
- Energy range from 40 keV to 10 MeV for GCD model
- Energy range from 3 keV to 10 MeV for GCDX/GCDX-OS models
- Excellent peak symmetry
- No full thermal cycle needed after power loss
- L-shape cryostat is available

### ADD-ONS

- Multi Channel Analyzer MCA
- Analysis Software GammaPRO
- Advanced software package MCC-MT
- Lead Shield
- Trolley on wheels
- Cable set extension

### COMPLETE SET

- HPGe detector (any BSI type)
- SHP Preamplifier with cooling input stage
- Long-lasting Stirling cooler with low power consumption
- Controller for the Stirling cooler
- Active and passive vibration cancellation system
- Protective housing
- Integrated LCD to display status



Parameter	Value
Cooling time of the detector, hours	< 13
Orientation in space	At any angle
AC Power supply	230 V; 50/60 Hz
Power consumption, max	250 W
Power consumption, normal	120 W
Range of the operating temperatures, ° C	0 ... +40

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**Gamma-rays**