

MWD Gamma Detector Specification and Performance Comparison

Reliability is essential in oil exploration and Saint-Gobain Crystals detectors are engineered to endure the severe environment that exists in drilling operations. Only Saint-Gobain detectors are made with Polyscin® Crystal, a special form of sodium iodide engineered for strength. Whether used for MWD or wireline, Saint-Gobain detectors are the clear choice for both reliability and performance.

Attribute	Performance Comparison	
	Saint-Gobain Crystals	Competition
<i>Survival</i>		
Shock	1000g @1 ms; 3 shocks per axis, 3 axes total	250g @2 ms
Vibration	Random 20g _{rms} 30-1000 Hz; 15 minute duration per axis, 2 axes total	Nothing published
<i>Performance¹</i>		
Vibration	Random 20g _{rms} 30-1000 Hz; 2-1/2 minute duration per axis, 2 axes total per the following spectral profile: 30-80 Hz @ 6 db/octave 80-1000 Hz 0.43g ² /Hz Acceptance criteria: Counts/second not to exceed BASE + 2x(√BASE) during specified vibration	Sine 20g, 10-1000 Hz Acceptance criteria: BASE + 2x(BASE)
Pulse Height Resolution (typical @ 662 keV)	8.5% @ 25°C 14% @ 150°C	11% @ 25°C 15% @ 150°C
Survival Temperature	-55°C to 205°C	-55°C to 175°C
Crystal Type	Polyscin® Crystal	Standard
Crystal/PMT Coupling	Solid	Liquid
Full-view Optical Window	Yes	Yes
Increased Volume	Yes	Yes
¹ Standard specifications are stated. Saint-Gobain Crystals can customize to your specific needs.		