



Gamma Scintillator Packages

Sodium Iodide (NaI-Tl) based scintillation gamma sensors can help improve your downhole operation.

Custom designed to your specifications

GE Oil & Gas tailors every scintillation detector to your exact specifications. We provide a broad range of detector configurations, including virtually any crystal size, mounting and interface adaptations, as well as built-in radioactive check sources.

The assembly's high-strength sapphire window, combined with a patented optical coupler, allows for maximum light output. Using the highest quality materials and a cutting edge design, GE is committed to engineering its sensors to meet strict customer specifications.

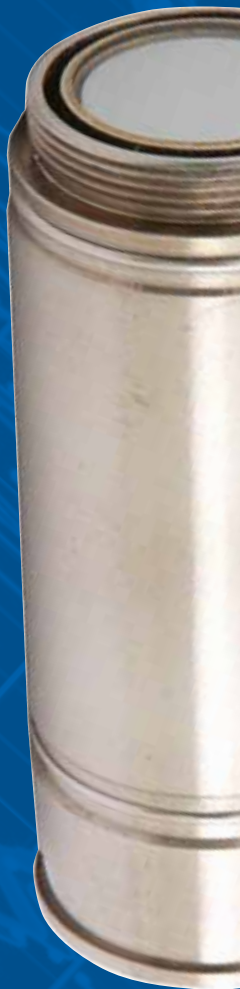
Delivering one of the industry's highest sensitivities, our gamma sensors provide geologists and drilling contractors with the precise measurements required for accurate formation location and identification.

Our radial suspension system also contributes to greater detector sensitivity. By minimizing the radial space needed to isolate the crystal from vibration, larger crystals can be packaged inside the sensor housing. Higher sensitivity can help customers log faster or reduce the size of the detectors for more compact tools and thinner bed resolution. Thin wall titanium housings minimize gamma attenuation

for better gamma radiation transmission at lower energies. These features allow customers to operate downhole confidently, even in the most severe conditions.

Benefits

- Operating temperatures to 200°C (392°F)
- Shock survivability to 1,000 g
- Random vibration rating of 20 gRMS
- Fully customizable
- Rigorous and extensive testing at every stage of the design, qualification, and production processes



Quality by design

Our scintillation detectors are backed by the quality and expertise gained through more than 30 years of experience in the downhole logging industry. Merging the efforts of nuclear physicists and electrical, chemical, and mechanical engineers, we are committed to developing the industry's most accurate and reliable gamma sensing technology.

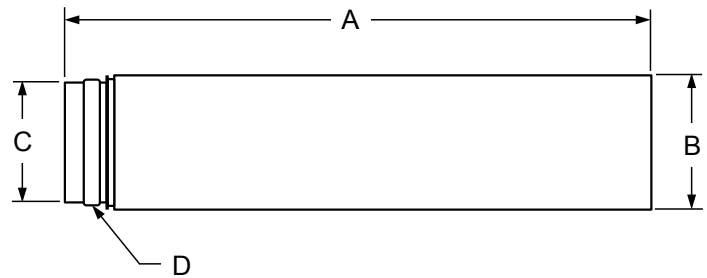
Incorporating rigorous and extensive testing at every stage of the design, test, and production processes, GE Oil & Gas delivers sensors that are designed to work the first time, every time.

Reliable performance in harsh environments

Our gamma sensors are designed to work in the harshest environments. Validated by extreme temperature, vibration, and shock testing, the scintillation packages are able to obtain accurate measurement data reliably up to 200°C (392°F). Performance in high shock and vibration environments is ensured with technology such as the Flexible Dynamic Sleeve and our patented spring suspension system, protecting the scintillation crystal from the dynamic environment.

Specifications

Crystal Materials	NaI(Tl)
Detector Sizes	<ul style="list-style-type: none"> • Up to 2" (50.8 mm) outside diameter • Up to 12" (304.8 mm) length
Pulse Height Resolution	25°C PHR <9%, 150°C PHR <12.5%, 175°C PHR <15%
Vibration	Up to 20 g RMS, 10 to 500 Hz
Shock	Up to 1,000 g, 0.5 ms duration
Operating Temperature Range	-32°C to 200°C (-26°F to 392°F)
Check Sources Available	Cs-137



Part Number	OAL A inches (mm)	Diam. B inches (mm)	Window Diam. C inches (mm)	Thread D	Crystal Diam. inches (mm)	Crystal Length inches (mm)
RS-S1-0767-226	7.657 (194.49)	0.998 (25.35)	0.853 (21.67)	15/16-32 UN-2A	0.820 (20.83)	6.795 (172.59)
RS-S1-0845-003	4.631 (117.63)	1.000 (25.40)	0.870 (22.10)	15/16-32 UN-2A	0.805 (20.45)	4.125 (104.78)
RS-S1-1044-003	4.453 (113.11)	1.201 (30.51)	1.051 (26.70)	1-1/8-28 UN-2A	1.000 (25.40)	4.000 (101.60)
RS-S1-1046-015	4.795 (121.79)	1.245 (31.62)	1.103 (28.02)	1-3/16-28 UN-2A	1.070 (27.18)	4.190 (106.43)
RS-S1-1336-003	3.750 (95.25)	1.625 (41.28)	1.467 (37.26)	1-9/16-20 UN-2A	1.470 (37.34)	3.240 (82.30)

This list is a small sample of crystal packages we manufacture. GE Oil & Gas designs and manufactures crystal packages to customer specifications. Crystal sizes range from 0.50" diameter x 0.50" long to 2.25" diameter x 12" long.

Contact your GE Oil & Gas representative today for complete product specification and ordering information.

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