

# Perforating Gamma Gun

Titan Division | Instruments





## Features

- Compatible with all types of detonators, igniters and firing modules and with Hunting EBFire® and ControlFire® perforating switches
- Durable CCL for repetitive perforating operations
- Integrated shock sub for additional tool protection
- Hardened CCLs constructed with Alnico 5 magnets
- Patented shock protection technology allows for construction of gamma perforators with larger, more sensitive scintillation detectors
- Designed to operate at +50VDC
- Available in both negative fire and dual fire configurations
- Sizes range from 1-11/16 in. (42.9 mm) to 3-1/8 in. (79.4 mm) OD with a variety of configurable options
- Construction with Geiger-Muller detectors optional

## Benefits

- Reliable operation in extreme shock and impact environments
- Higher logging speed using larger scintillation detector
- Optimized CCL signal performance
- Reduced maintenance cost due to high MTBF
- Improved tool reliability in underbalance and overbalance completion conditions
- Superior log quality, higher logging speeds and easier stratigraphic correlation for depth control
- Packaged scintillation perforating detector reliability exceeds that found in Geiger-Muller detector technology
- Flexibility with a range of services

Hunting's perforating gamma ray tools provide a rugged and reliable means of stratigraphic correlation depth control for completion operations. They are also trustworthy tools for balanced, underbalanced and overbalanced completion operations, for conducting select fire or addressable perforating gun operations or setting plugs and packers.

## Perforating GR-CCL Specifications - Negative Fire - Scintillation Detector

Part Number	1-11/16 in. (43 mm) Stand-alone	2-3/4 in. (70 mm) Stand-alone	3-1/8 in. (79 mm) Stand-alone
Standard	8100-16857SC084-06-06-#	8100-27557SC100-04-*1	8100-31257SC100-04-*1-A
High Temperature	8100-168B7SF070-06-06-#	8100-275B7SF100-04-*1	8100-312B7SF100-04-*1-A
<b>Measurements</b>			
Offset From Bottom Shoulder (in.)[cm] {Hi Temp} CCL • G	62.4 [158.5] • 19.6 [49.9] {68.6 [174.1] • 44.5 [113.1]}	54.4 [138.2] • 18.8 [47.8] {67.3 [170.9] • 41.8 [106.2]}	50.5 [128.3] • 16.0 [40.6] {66.3 [168.3] • 41.4 [105.1]}
<b>Environmental</b>			
Standard Temperature Rating (°F)[°C]	350 [177]		
High Temperature Rating (°F)[°C]	500 [260]		
Pressure Rating (psi)[MPa]	18,000 [124]	20,000 [138]	20,000 [138]
Material	Carbon Steel	Zinc Alloy	Carbon Steel
<b>Mechanical</b>			
Outside Diameter (in.)[mm]	1.69 [42.9]	2.75 [69.9]	3.13 [79.4]
Length (ft)[m] {Hi Temp}	6.32 [1.93] {6.83 [2.08]}	5.86 [1.79] {6.93 [2.11]}	5.05 [1.54] {6.37 [1.94]}
Weight (lb)[kg] {Hi Temp}	28 [13] {36 [16]}	80 [36] {85 [39]}	73 [33] {100 [45]}
Max. Tension (lbf)[kN]	65,000 [289]		
Top/Bottom Connection	1-3/16 in. GO Box/Box	1-3/16 in. GO Box/GO Quick Change Box	1-3/16 in. GO Box/GO Quick Change Box
<b>Electrical</b>			
Operating Voltage & Current	+50 VDC @ 60±5 mA		
Shooting Polarity	Negative		

\* Use "0" for plain upper head; "1" for upper head connection 2-in. fishing neck

# Use "A" for stainless steel housing; blank for normal steel housing (2-3/4 in. tools all have stainless steel housing)

## Geiger-Müller Detector - Negative Fire

	1-3/8 in. (35 mm) Stand-alone	1-11/16 in. (43 mm) Stand-alone	2-3/4 in. (70 mm) Stand-alone	3-1/8 in. (79 mm) Stand-alone
Part Number	8100-13777GM100-12-06-#	8100-16877GM137-18-06-#	8100-27577GM100-18-*1	8100-31277GM100-12-*1-A
<b>Measurements</b>				
Offset From Bottom Shoulder (in.)(cm) CCL • GR	48.4 [122.9] • 15.2 [38.6]	62.4 [158.6] • 21.0 [53.3]	54.4 [138.1] • 17.5 [44.3]	50.4 [1.28] • 17.7 [45.0]
<b>Environmental</b>				
Temperature Rating (°F)(°C)	400 [204]			
Pressure Rating (psi)(MPa)	20,000 [138]	18,000 [124]	20,000 [138]	20,000 [138]
Material	Carbon Steel	Carbon Steel	Zinc Alloy	Stainless Steel
<b>Mechanical</b>				
Outside Diameter (in.)(mm)	1.38 [34.9]	1.69 [42.9]	2.75 [69.9]	3.13 [79.4]
Length (ft)(m)	5.13 [1.56]	6.32 [1.93]	5.86 [1.79]	5.05 [1.54]
Weight (lb)(kg)	17 [8]	28 [13]	85 [39]	90 [41]
Max. Tension (lbf)(kN)	65,000 [289]			
Top Connection	1-3/16 in. GO Box/Box		1-3/16 in. GO Box/GO Quick	1-3/16 in. GO Box/GO Quick
Bottom Connection			Change Box	Change Box
<b>Electrical</b>				
Operating Voltage & Current	+50 VDC @ 60±5 mA			
Shooting Polarity	Negative			

\* Use "0" for plain upper head; "1" for upper head connection 2-in. fishing neck

# Use "A" for stainless steel housing; blank for normal steel housing (2-3/4 in. tools all have stainless steel housing)

## Perforating GR-CCL Specifications - Dual Fire - Scintillation Detector

Part Number	1-11/16 in. (43 mm)		2-3/4 in. (70 mm)		3-1/8 in. (79 mm)	
	Stand-alone	With Integrated Shock Sub	Stand-alone	With Integrated Shock Sub	Stand-alone	With Integrated Shock Sub
Standard	8100-1685FSC084-06-06	8100-1685FSC084-06-0C	8100-2755FSC100-04-*1	8100-2755FSC100-04-0C	8100-3125FSC100-04-11	8100-3125FSC100-04-0C
High Temperature	8100-168BFSF070-06-06	8100-168BFSF070-06-0C	8100-275BFSF100-04-*1	8100-275BFSF100-04-0C	-	8100-312BFSF100-04-0C
<b>Measurements</b>						
Offset From Bottom Shoulder (in.)(cm) CCL • GR	62.4 [158.5] • 15.6 [39.5] {68.6 [174.1] • 44.5 [113.1]}	80.7 [119.1] • 33.8 [85.9] {101.1 [256.7] • 77.0 [195.6]}	62.9 [159.8] • 18.9 [47.9] {67.3 [170.9] • 41.8 [106.2]}	84.7 [215.0] • 40.7 [103.3] {89.1 [226.3] • 63.7 [161.7]}	66.3 [168.4] • 41.4 [105.1]	88.3 [2.24] • 63.4 [161.0]
<b>Environmental</b>						
Standard Temperature Rating (°F)(°C)	350 [177]					
High Temperature Rating (°F)(°C)	500 [260]			-	500 [260]	
Pressure Rating (psi)(MPa)	18,000 [124]	18,000 [124]	20,000 [138]	20,000 [138]	20,000 [138]	20,000 [138]
Material	Stainless Steel					
<b>Mechanical</b>						
Outside Diameter (in.)(mm)	1.69 [42.9]	1.69 [42.9]	2.75 [69.9]	2.75 [69.9]	3.13 [79.4]	3.13 [79.4]
Length (ft)(m) {Hi Temp}	6.32 [1.93] {6.83 [2.08]}	7.83 [2.39] {8.35 [2.55]}	6.57 [2.00] {6.93 [2.11]}	8.38 [2.56] {8.75 [2.67]}	6.37 [1.94]	8.20 [2.50] {8.20 [2.50]}
Weight (lb)(kg) {Hi Temp}	30 [14] {38 [17]}	43 [20] {43 [20]}	58 [26] {73 [33]}	88 [40] {102 [46]}	90 [41]	130 [59] {130 [59]}
Max. Tension (lbf)(kN)	65,000 [289]					
Top Connection	1-3/16 in. GO Box					
Bottom Connection	1-3/16 in. GO Box			GO Quick Change Box		
<b>Electrical</b>						
Operating Voltage & Current	+50 VDC @ 50±5 mA					
Shooting Polarity	Positive and Negative					

\* Use "0" for plain upper head; "1" for upper head connection 2-in. fishing neck

## Geiger-Müller Detector - Dual Fire

	1-11/16 in. (43 mm)		2-3/4 in. (70 mm)		3-1/8 in. (79 mm)
	Stand-alone	With Integrated Shock Sub	Stand-alone	With Integrated Shock Sub	Stand-alone
Part Number	8100-1687FGM137-18-06	8100-1687FGM137-18-0C	8100-2757FGM100-18-*1	8100-2757FGM137-18-0C	8100-3127FGM100-12-*1-A
<b>Measurements</b>					
Offset From Bottom Shoulder (in.)/[cm] CCL • GR	70.6 [179.2] • 21.0 [53.3]	88.8 [225.6] • 39.2 [99.6]	62.9 [159.8] • 20.3 [51.5]	84.7 [215.2] • 42.1 [107.0]	50.4 [128.0] • 17.7 [45.0]
<b>Environmental</b>					
Temperature Rating (°F)/[°C]	400 [204]				
Pressure Rating (psi)/[MPa]	18,000 [124]		20,000 [138]		
Material	Stainless Steel				
<b>Mechanical</b>					
Outside Diameter (in.)/[mm]	1.69 [42.9]	1.69 [42.9]	2.75 [69.9]	2.75 [69.9]	3.13 [79.4]
Length (ft)/[m]	7.00 [2.13]	8.52 [2.60]	5.86 [1.79]	8.39 [2.56]	5.05 [1.54]
Weight (lb)/[kg]	31 [14]	43 [20]	85 [23]	80 [36]	90 [41]
Max. Tension (lbf)/[kN]	65,000 [289]				
Top Connection	1-3/16 in. GO Box				
Bottom Connection	1-3/16 in. GO Box		GO Quick Change Box		
<b>Electrical</b>					
Operating Voltage & Current	+50 VDC @ 50±5 mA				
Shooting Polarity	Positive and Negative				

\* Use "0" for plain upper head; "1" for upper head connection 2-in. fishing neck

## Optional Adapters

O.D. (in.)/[mm]	Assembly Part Number	Contact Kit	Upper Head Adapter
2-3/4 [70]	8130-275-110	8100-000-012	1-3/16 in.-12 GO Box with 2 in.-6 Acme fishing neck thread
3-1/8 [79]	0257-200-003	-	1-3/16 in.-12 GO Box with 2 in.-6 Acme fishing neck thread
	0257-200-007	-	1-5/8 in.-6 Acme Box
	3890-000-130	5401-000-032	3-1/8 in. O.D. Sinker Bar Assembly
2-3/4 [70]	8100-275-020	8100-275-022	1-3/16 in.-12 GO Pin
	8100-275-250	8100-312-022	1-3/16 in.-12 GO Box
3-1/8 [79]	8100-312-240	8100-312-242	1-3/16 in.-12 GO Pin
	8100-312-250	8100-312-252	1-3/16 in.-12 GO Box



'Excellence in **Energy Services** for over 100 years'

[www.hunting-intl.com/titan](http://www.hunting-intl.com/titan)

2017 © Hunting. All rights reserved. ControlFire and EBFire are registered trademarks of Hunting.