DGEM-100

DETEQ GAMMA ELECTRONICS MODULE

$1250.00 ea

1771 Westborough Drive - Katy, Texas 77449 – PH: (281) 828-3030 FX: (281) 828-3003
info@deteqservices.com or www.deteqservices.com

OPERATIONAL INFORMATION

The DGEM-100 is a complete ruggedized, 177C Gamma Electronics Module deisgned for MWD or Wireline applications. The DGEM-100 includes the high voltage supply, the preamp, and the descriminator. It also includes an open loop temperature compensation that increases the high voltage to compensate for the loss in gain of the PMT/Crystal with temperature. The PMT is connected to the DGEM 100 at the DYNODE, CATHODE, and ANODE terminals. Once connected to the PMT/Crystal, all that is required is to select a bias resistor between the HVADJ and GND terminals, using a CS137 lab source, such that the center of the CS137 662 KEV peak is at 2V +/- .25V measured at the ANALOG terminal. This measurement can be made with a Spectrum Analyzer or just an Oscilloscope. This method replaces the traditional plateau curve process and is designed to keep the count-rate change over temperature to less than +/- 5%. The threshold for the descriminator is set at 200mv which is ~66 KEV once the bias resistor has been selected. The temperature compensation is designed for a Hamamatsu PMT. The digital output is a 0 to 5V pulse for each Gamma pulse that is above 2V.

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SPECIFICATIONS

Electrical:

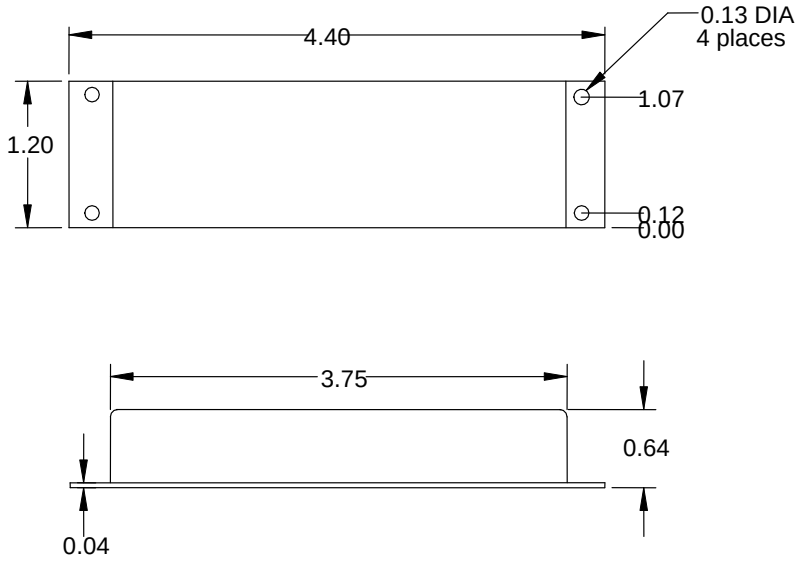
Input Voltage:	+12V to +15V (VIN to GND)
Output H.V. Polarity:	Positive
Output vs Bias Resistor: (HV ADJ to GND)	0 Ohms = ~+1000V, Open = ~+1300V
Min Dynode Resistance:	14M
Max Count Rate Change : (25C to 177C) (Hamamatsu PMT) (Natural Gamma)	+/-5%

Environmental:

Shock:	200G, ½ Sine, 5ms
Vibration:	25G, 250hz Random
Max Temperature:	177C

Mechanical:

Length:	4.40”
Width:	1.20”
Height:	.640”
Weight:	3oz



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