



## Product Data Sheet



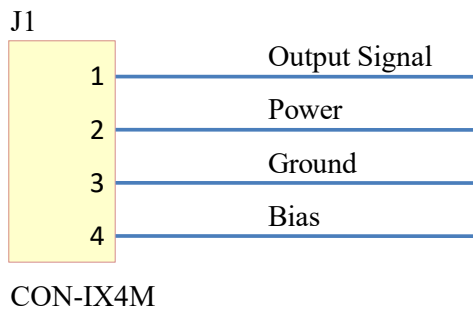
### 3cc CsI Gamma Sensor Module

(P/N:001-0100-000)

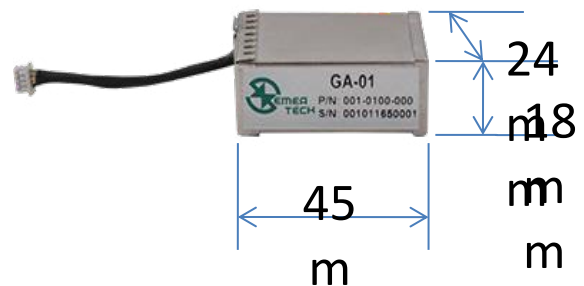
### Description

SemeaTech's 3cc Cesium Iodine Gamma Sensor Module consists of a cesium iodide crystal, a photodiode, and a high-gain preamplifier that can be used to measure X and  $\gamma$  radiation from 50keV to 3MeV. It features high sensitivity and an instant response time (of about a second) to a very minor change of X and  $\gamma$  ( 0.01  $\mu$ Sv/h ).

The sensor is housed in a 45x24x18 $\pm$ 0.5mm metal housing with a cable of approx. 55mm as the connection interface. The connector is a 4-pin MOLEX PicoBlade 1.25mm (.049") connector (reference Molex connector, part no. 51021-0400 ). Pin assignments are shown below:



### Product Dimensions



### Electric Characteristics

Output: a full width at half maximum of approximately 60us quasi-Gaussian pulse

Power: 2.7V ~ 3.3V

Bias: 30V recommended, maximum 50V

Noise Level: 80mV  $\pm$  15mV at room temperature

### Detection Performance

Energy Detection Range: 50keV to 3MeV

Response Time: Typical 1 second

Signal amplitude: 0.9V $\pm$ 0.1V @662keV

Detection efficiency: 25000 $\pm$ 20% count/uSv @662keV

Noise Temperature Effect: Refer to PIN Diode Characteristics

Working Temperature: -20°C to 50°C

Life Span: 5 years

### Energy Curve

