



**SINGLE CHANNEL, HANDHELD SIGNAL CONDITIONER FOR GAAS-BASED FIBER OPTIC TEMPERATURE SENSORS**

Compatible with Opsens' GaAs (SCBG) series temperature sensors

**Key Features**

- Compact and rugged design with rubber boot casing protection
- Versatile and easy to use with large LCD display
- High linearity and precision
- 50 Hz sampling rate
- $\pm 5$  V and RS-232 output interfaces

**Applications**

- MRI, RF, EMI, ultrasound and electro surgery environments
- Temperature monitoring for preclinical and research applications
- High voltage and microwave environments
- Microwave and food processing

**Description**

The PicoM is a compact and portable signal conditioner to be used with Opsens' GaAs (SCBG) OTG-M and OTG-A series fiber optic temperature sensors.

At the heart of the PicoM is the Opsens' Semiconductor Band Gap (SCBG) technology which provides a mean for making accurate temperature measurement - dependent bandgap position of GaAs crystal.

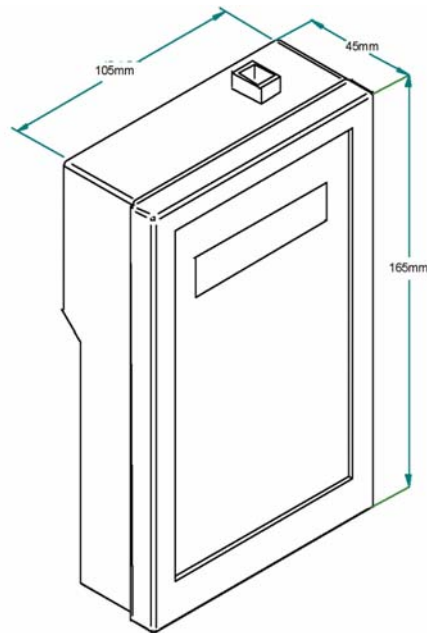
The PicoM is equipped with a large visible LCD display and can be battery operated. It comes with standard  $\pm 5$  V output and RS-232 communication port for real-time data acquisition. The PicoM can be controlled directly using the front-panel keypad or remotely using the standard RS-232 interface. A rugged casing with a removable rubber boot provides good mechanical protection against intensive handling in tough environments.

With a 50 Hz sampling rate and a  $\pm 0.3^{\circ}\text{C}$  accuracy (total accuracy including both signal conditioner and sensor errors), the PicoM delivers the performance needed for a wide range of medical applications.

**Opsens**

319 Franquet Street,  
Suite 110,  
Québec City, QC G1P 4R4  
Canada

1.418.682.9996  
1.418.682.9939  
Info-solutions@opsens.com  
www.opsens-solutions.com



## Specifications

|   |   |
|---|---|
| Number of channels                          | One   |
| Compatibility                               | Opsens GaAs (SCGB) series fiber optic temperature sensors   |
| Resolution                                  | 0.1 °C (On Display)   |
| Accuracy                                    | ± 0.3°C (Range from 20 °C to 45 °C including both signal conditioner and sensor errors)<br>± 0.8°C (Range from - 20°C to 250°C including both signal conditioner and sensor errors) |
| Sampling rate                               | 50 Hz standard  |
| Output interface                            | ±5 V and RS-232 standard  |
| Input power                                 | 9 to 24 VDC (AC/DC wall-transformer adapter included)   |
| Consumption                                 | 1.8 W typical   |
| Battery                                     | 9V  |
| Enclosure                                   | Plastic casing with a removable rubber boot protection  |
| Dimensions (without rubber boot protection) | 45 mm (H) x 105 mm (W) x 165 mm (L)   |
| Storage temperature                         | -40 °C to 70 °C   |
| Operating temperature                       | 10 °C to 45 °C  |
| Humidity                                    | 95 % non condensing   |
| Light source life span                      | 150 000 hours (> 17 years) MTBF   |

All specifications are subject to change without prior notifications