



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
- ± 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.

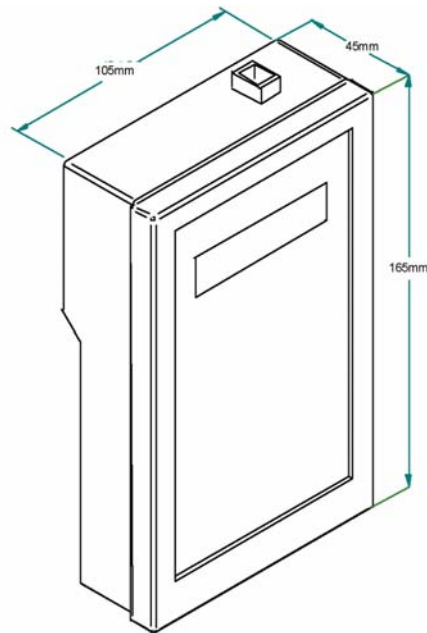
The PicoM is equipped with a large visible LCD display and can be battery operated. It comes with standard ± 5 V output and RS-232 communication port for real-time data acquisition. The PicoM can be controlled directly using the front-panel keypad or remotely using the standard RS-232 interface. A rugged 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.

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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) ± 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