



HIGH ACCURACY SIGNAL CONDITIONER FOR MEASURING PHYSIOLOGICAL† TEMPERATURE

Use with Opsens' OTP-M fiber optic physiological* temperature sensor

Key Features

- Highest accuracy and resolution in the industry
- OEM and multi-channel version available
- Outstanding repeatability
- 20 Hz sampling rate
- ± 5 V and RS-232 output interfaces

Applications

- Physiological temperature measurements
- RF, microwave and electro surgery environments
- MRI system (R&D and OEM applications)
- Sterilization applications

Description

The AccuSens is a signal conditioner specifically designed for measuring physiological† temperature. The AccuSens is designed to perform in stringent medical environments by offering the highest temperature accuracy and resolution in the industry.

At the heart of the AccuSens is the Opsens' White Light Polarization Interferometry (WLPI) technology (patent # 7,259,862) which provides a mean for making accurate and absolute measurements of the path length difference of any type of interferometric fiber optic sensors, whose difference varies according to the measurand of interest.

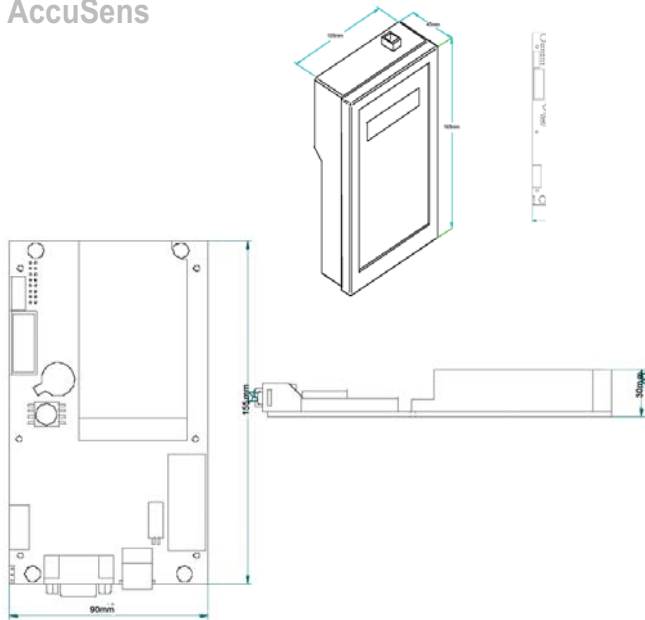
The AccuSens comes with a standard ± 5 V output and a RS-232 communication port for real-time data acquisition. The AccuSens can be controlled directly using the front-panel keypad or remotely using the standard RS-232 interface. Single and multi-channel OEM versions are available.

Opsens

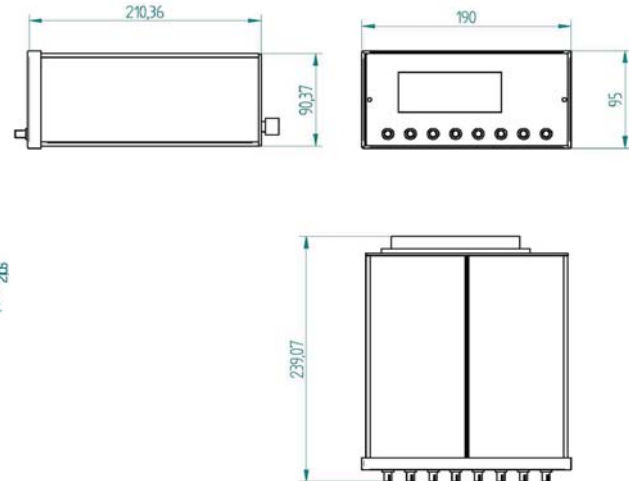
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AccuSens



AccuSens-Multichannel



Specifications

Number of channels	1, 4, 8
Compatibility	Opsens' OTP-M fiber optic temperature sensor
Accuracy*	± 0.15 °C (Total accuracy over the full range from 20°C to 45°C including both signal conditioner and sensor errors)
Resolution*	0.01 °C
Sampling rate	20 Hz standard
Channel rate scan	6.67 Hz (channel to channel measurement time = 150 ms)
Output interface	±5 V and RS-232 standard
Input power and consumption	9 to 24 VDC - 1.8 W (wall-transformer adapter included)
Dimensions	(without rubber boot protection): 45 mm (H) x 105 mm (W) x 165 mm (L) OEM version single channel: 30 mm (H) x 90 mm (W) x 155 mm (L)
Storage temperature	-40 °C to 70 °C
Operating temperature	10 °C to 35 °C
Humidity	95 % non condensing
Light source life span	40 000 hours MTBF

*Specifications include the effect of both the signal conditioner errors and the OTP-M sensor errors

† The AccuSens product is designed to be integrated into customer host system but is not approved by the FDA or by any applicable regulatory bodies. The All specifications are subject to change without prior notifications