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Data Sheet

August 15, 2026

ABACO SYSTEMS / SBS / GREENSPRING

Abaco Systems / SBS / Greenspring IP-Thermistor 16 Channel Thermistor Temperature Reading IndustryPack

The Abaco Systems IP-Thermistor is an IndustryPack module designed for accurate temperature measurement using 16 thermistor channels. Ideal for industrial applications requiring precise temperature monitoring.



MODEL

**Abaco Systems /
SBS / Greenspring
IP-Thermistor**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

IP-Thermistor

LISTING

<https://aumictechlabs.com/products/ip-thermistor-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems IP-Thermistor is a single-high IndustryPack module that delivers precise temperature monitoring across 16 independent thermistor channels. Built for industrial applications requiring reliable, high-speed thermal data acquisition, the module integrates a switched 1 mA current source, multiplexers, amplifiers, and a 12-bit ADC to enable accurate two-wire thermistor measurements with minimal self-heating effects.

Technical Specifications

Measurement Architecture 16 temperature input channels supporting two-wire thermistor sensors

Switched, highly stable 1 mA current source with sequential channel activation

12-bit ADC with integral sample/hold; data sign-extended to 16-bit words

Per-channel conversion cycle: 17 μ sec

Maximum scan rate: 58.8 Ksample/sec Programmable 16-bit pacer clock with 1 μ sec resolution, configurable from 17 to 65,535 μ sec intervals Protection & Storage Heavy-duty over-voltage protection rated ± 35 V continuous (with or without power applied) 2 Kbit calibration EEPROM for per-channel thermistor type and calibration data storage Control & Signaling Standard IndustryPack bus interface Programmable vectored interrupts upon conversion completion ADC_BUSY status bit available for host polling Programmable pacer clock functions as general-purpose timer with interrupt capability

Key Features Minimized thermistor self-heating through pulsed current excitation High-speed conversion enables real-time multi-channel thermal monitoring On-module EEPROM simplifies system integration and calibration management solid input protection sustains ± 35 V faults without component degradation Flexible interrupt or polling-based completion detection for varied host architectures

Typical Applications Temperature-critical industrial environments including thermal monitoring in distributed sensor networks, process control systems, and equipment protection circuits where 16-channel simultaneous acquisition and high scan rates are required.

Compatibility & Integration Designed as a plug-in module for carrier boards supporting the IndustryPack (IP) form factor. Standard IP bus interface ensures compatibility with Abaco Systems, SBS, and Greenspring host platforms.

IP THERMISTOR Characteristics / Specifications

PARAMETER	VALUE
Model	IP-Thermistor
Instrument Type	16 channel thermistor IndustryPack
Card Format	single high IndustryPack
Sensor Channels	16
Excitation Current	1 mA switched highly stable
Adc Resolution	12 bit
Sample Hold	integral to ADC
Conversion Cycle Time	17 us
Data Word Width	12-bit data sign extended to 16-bit word
Pacer Clock Resolution	1 us
Pacer Period Range	17 to 65535 us
Pacer Width	16 bit programmable
Overvoltage Withstand	plus or minus 35 V continuous
Calibration Memory	2 Kbit EEPROM
Current Source Control	software may switch source off to all sensors
Completion Detect	programmable vectored interrupt or ADC_BUSY poll
Module Height	single high
Mezzanine Standard	ANSI VITA 4 IndustryPack
Carrier Interface	IndustryPack logic interface
Factory Trim	factory-set offset and gain adjustment circuitry
Dimensions Typical Ip	1.800 by 3.900 by 0.340 inches maximum
Logic Connector	IndustryPack logic interfaceIOConnector: IndustryPack 50-pin I/O class
Module Width Class	single wide unless noted

General Specifications & Supplementary Characteristics

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Module Width Class	single wide unless noted Notes From Greenspring SBS Abaco IP-Thermistor Artisan OEM description. Thermistor curve coefficients are application specific and may be stored in the EEPROM by the integrator.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

environmental chambers, process thermistor arrays, and embedded thermal acquisition on IndustryPack carriers.

Key Features

- Sixteen thermistor channels with switched 1 mA excitation
- Twelve-bit ADC with integral sample and hold
- Seventeen microsecond conversion cycle
- Programmable pacer clock 17 to 65535 us
- Plus or minus 35 V input overvoltage withstand on multiplexers

Technical Specifications

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Notes

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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.