

This month we have the second white paper of a three-part series on Criteria for Temperature Sensor Selection of Thermocouple and RTD Sensor Types.



To discuss your application with our team of experienced I/O experts or get a quote, call us at 877-295-7035 or email us at [sales@acromag.com](mailto:sales@acromag.com).

## White Paper: The Basics of Temperature Measurement Using RTDs

You already know that an RTD or Resistance Temperature Detector is a passive circuit element whose resistance increases with increasing temperature in a predictable manner. But in choosing one, you must consider an RTD's temperature coefficient of resistance (TCR), relative sensitivity, accuracy, repeatability, interchangeability, stability and drift characteristics, insulation resistance, response time, packaging plus the thermal transfer mechanism between the sensed material and the sensor element. You must also consider the negative effects of corrosion and contamination, shock and vibration, self-heating, meter loading, and in some cases, even thermoelectric effects. This white paper will help you prepare.



Criteria for Temperature Sensor Selection of Thermocouple and RTD Sensor Types White Papers

[Part two: RTD Temperature Measurement White Paper](#)

[Part one: Thermocouple Temperature Measurement White Paper](#)

## New Low-Cost Temperature Transmitters With Easy USB Configuration

Despite their tiny size and economical price tag, [ST130](#)



## Isolation Video



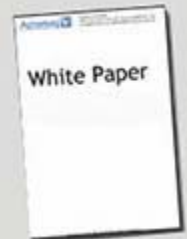
[Why you need USB isolation to protect your instrumentation video](#)

## Want a Brochure?



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## White Papers



[RTD Temp Measurement](#)

[T/C Temp Measurement](#)

## Extended Warranty

# 7 YEAR WARRANTY

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[Series](#) units are full-featured. By leveraging the latest signal conditioning technologies, these transmitters are able to provide a performance level and feature set previously unavailable in a unit of this size and price - starting at \$89. Free Windows configuration software simplifies set up and downloads calibration settings to the unit through a USB connection. These rugged units also feature high electrical noise immunity, surge protection, CE compliance, and are designed for UL/cUL Class 1 Division 2 Zone 2 applications.

[Download the ST131 RTD Transmitter data sheets](#)

[Download the ST132 Thermocouple Transmitter data sheets](#)

## Acromag on the Road

**Show:** [Collection Systems 2011 Conference](#)

**Acromag Represented by:** [W.K. Hile Company, Inc.](#)

**Location:** Raleigh, NC

**Date:** June 12-15, 2011

## More Resources

Signal Conditioning and Distributed I/O Solutions Product Summary Guide, 24 page brochure

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Download your 224 page [Signal Conditioning and Distributed I/O Catalog](#). (25 MB)

[Rugged and stackable EtherStax Ethernet I/O](#), 38 page brochure. (7.5 MB)

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**Sincerely,**



Acromag Marketing Communications Department