INFOSENSE-P™ Plug and Play Sensors Automatically Reduce Process Variation With Ultimate Accuracy

INFOSENSE-P plug and play technology provides even greater accuracy and convenience through automatically linking your application to Watlow's NIST-traceable calibration lab. INFOSENSE-P, based on IEEE 1451.4 technology, incorporates an EEPROM (electronically erasable programmable read-only memory) memory chip with each sensor. The EEPROMs are preprogrammed with each sensor's part number, manufacturing information and full range temperature calibration information. The memory chip communicates to IEEE 1451.4 compatible electronics, automating the process of sensor installation, location and identification, and entering of calibration data. Never risk losing or mixing those sensor calibration sheets again!

While the basic INFOSENSE tag is limited to four calibration data points, the INFOSENSE-P EEPROM contains the full calibration curve from Watlow's NIST-traceable calibration lab within the sensor. When the sensor is wired or connected to IEEE 1451.4 compatible electronics, the sensor's memory chip has a direct path into the controller's microprocessor. The controller then takes the information provided and performs a full high-order curve fit to correct for all the known error. Utilization of INFOSENSE-P results in a sensor that is now as accurate as Watlow's NIST reference standard.

Available Options

- Calibration information can include bulk material or individual sensor calibration
- Information can include sensor's name in the application (e.g. "air inlet temperature")
- Termination options include stripped wire ends and integrated multi-pin connectors

Applications

- Aerospace
- Analytical, labs, scientific
- Food processing
- Furnace, heat treat
- Medical, Life Science
- Oil and gas processing
- Pharmaceutical
- Power generation
- Refining-petrochemical
- Semiconductor
- Test stands

Features and Benefits

Improves accuracy
- Improves accuracy 10 times that of RTDs at 600°C (1112°F)
- Improves initial accuracy three times that of standard thermocouples

Easy to use
- Automatically communicates calibration, identification and traceability
- Contains an EEPROM that is programmed with information such as manufacturer, model number, serial number, measurement range and calibration information

IEEE 1451.4 standard
- Meets new international standard for plug and play smart sensors

Customized
- Available on any custom temperature sensor

U.S. Patent 5,857,777

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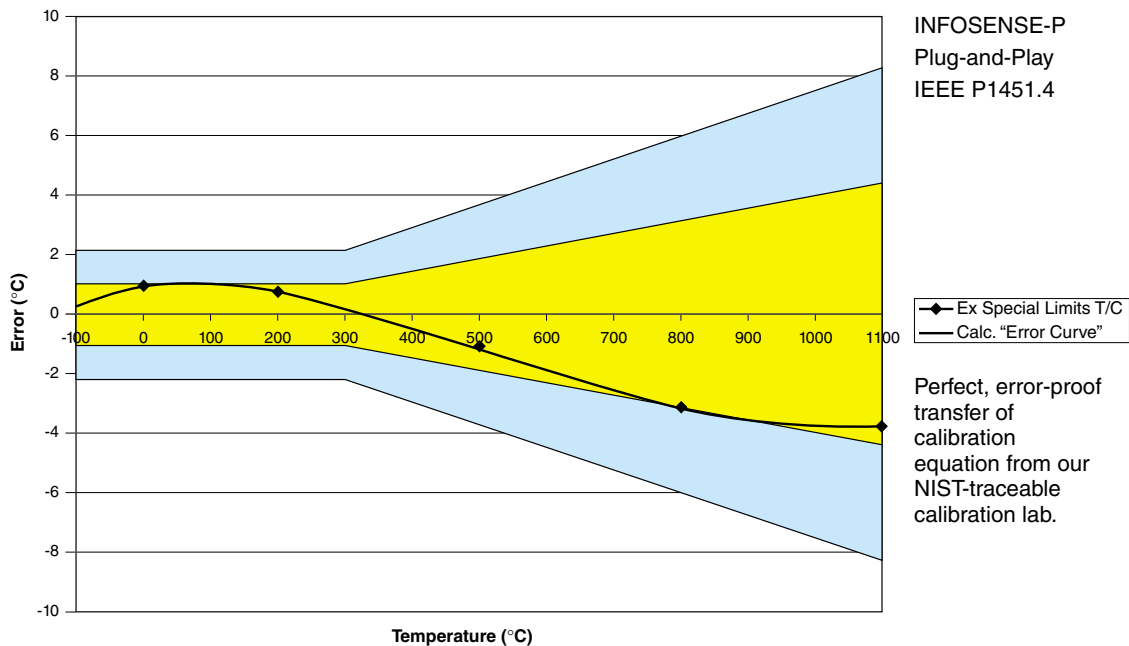Registered Company
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PRELIMINARY

INFOSENSE-P Chart

Error (°C)

10
8
6
4
2
0
-2
-4
-6
-8
-10

-100 0 100 200 300 400 500 600 700 800 900 1000 1100

Temperature (°C)

INFOSENSE-P
Plug-and-Play
IEEE P1451.4

Ex Special Limits T/C
Calc. "Error Curve"

Perfect, error-proof
transfer of
calibration
equation from our
NIST-traceable
calibration lab.

The INFOSENSE-P EEPROM contains the full calibration curve from Watlow's NIST-traceable calibration lab within the sensor. When the sensor is wired or connected to IEEE1451.4 compatible electronics, the sensor's memory chip has a direct path into the controller's microprocessor. The controller then takes the information provided and performs a full high-order curve fit to correct for all the known error. Utilization of INFOSENSE-P results in a sensor that is now as accurate as Watlow's NIST reference standard.