

New Line of Smart Temperature Transmitters from Precision Digital

EXsense
series



- Smart Temperature Transmitters with HART® Protocol
- Universal Input: RTD, TC, Ohm & mV Inputs
- Easy to Program with PC or HART Communicator
- Order Configured at the Factory Ready to Install
- Enhanced Display Model with 330° Rotatable Backlit LCD
- Display PV, Input Type, Eng Units & Bargraph
- Enhanced Display Model PD312 with Pt100 RTD
- Low-Cost Model PD301, PC Programmable
- 2-Wire Scalable 4-20 mA Output
- Galvanic Isolation Prevents Ground Loops
- Wide Voltage Range: 10.5 to 45 VDC
- Operating Temperature: -40 to 75°C
- Automatic Cold Junction Compensation for TC Inputs
- Protection Heads & Thermowells Available
- FM, CSA, ATEX, IECEx Explosion-Proof Enclosures



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Why Use Smart Temperature Transmitters from Precision Digital

According to Control Engineering Magazine, temperature is the most measured variable in the process industry and temperature transmitters are the second most used transmitters; second only to pressure transmitters.

There are many reasons to use the new ExSense Series of smart temperature transmitters from Precision Digital. The ExSense Series are extremely accurate over the entire operating temperature range; they can handle all kinds of TCs, RTDs, mV, and resistance inputs (27 types!) and provide a robust 4-20 mA signal. Most ExSense transmitters have HART communication capabilities, allowing for easy programming and troubleshooting in the field.

While all the features offered by the ExSense Series can be found in other more expensive transmitters, the ExSense Series is offered at very competitive prices and is supported by Precision Digital's unmatched free technical support.

Signal Integrity & Accurate Readings

Because thermocouples and RTDs generate low level signals, if the reading device is located more than a few feet away in an industrial environment, the signal can be affected by electrical noise causing the final temperature measurement to be inaccurate or even useless. A temperature transmitter converts the low level mV signal from the sensor into a robust, noise-immune 4-20 mA signal that can be transmitted for long distances providing reliable and accurate readings of the process temperature.

Reduce Wiring Cost

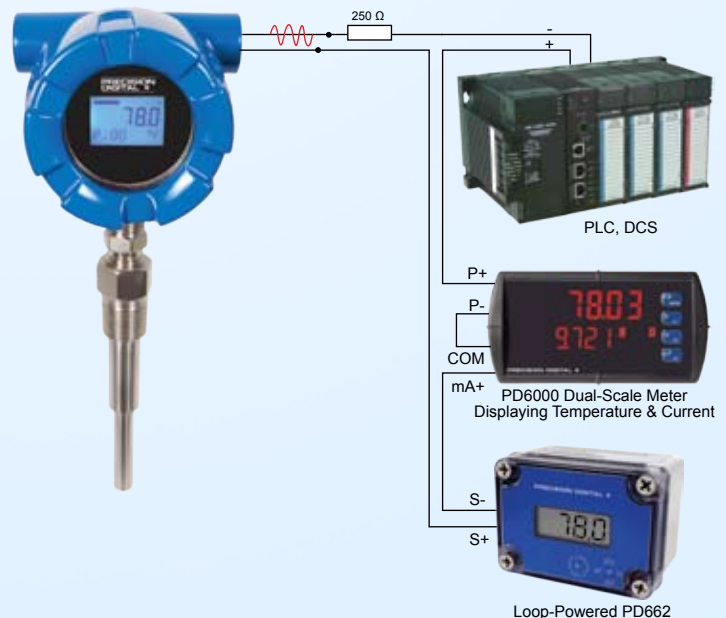
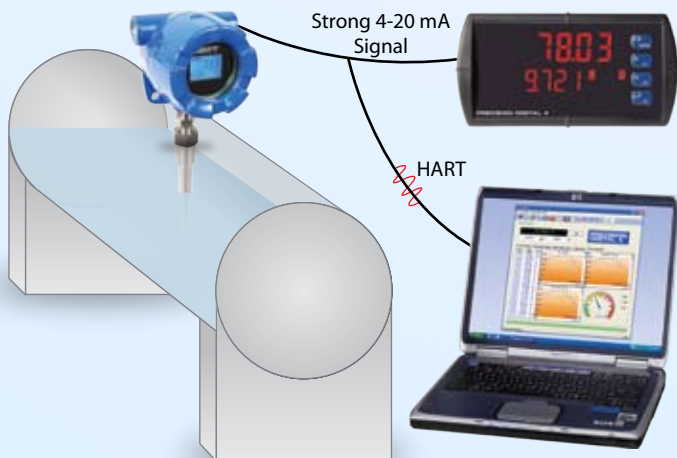
The 4-20 mA transmitter only needs two inexpensive copper conductors, which is more economical than running thermocouple wire or 3-wire shielded RTD cable.

Flexibility & Ease of Maintenance

If for any reason you need to replace the sensor with a different type, the wiring doesn't need to be replaced. Simply change the configuration setup of the smart temperature transmitter to match the new sensor and that's it! The HART smart transmitter's configuration can be changed from anywhere in the loop.

More Readings from One Sensor

Connect more than one reading device along the loop and make critical information available to the operators, right at the plant floor where it is most needed. The operator doesn't have to call the control room to ask for the boiler temperature. The same information is available in both locations. To accomplish the same task with direct-wired sensors would be significantly more difficult and more expensive; in some case it would be even impossible because there is no room to install two temperature sensors in the same location.



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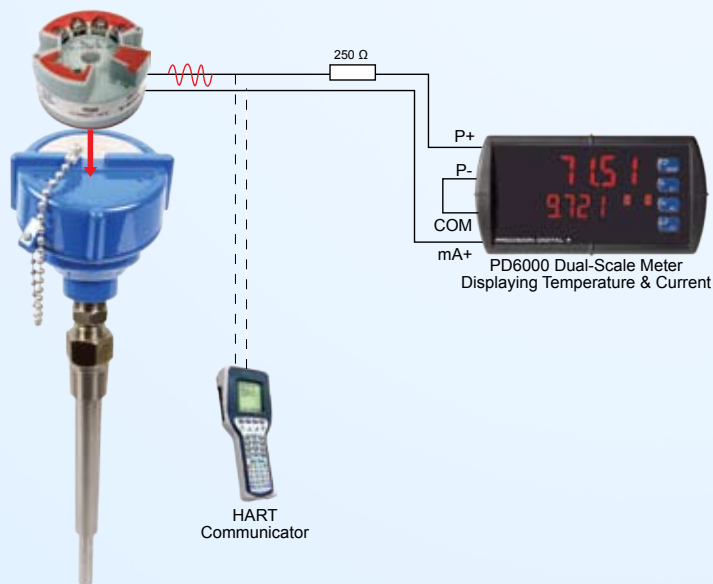
Approvals presently apply to explosion-proof enclosure only.
Complete product approvals expected soon, contact factory for details.

Universal Input



Troubleshooting with HART®

One of the main uses of the HART protocol is for troubleshooting. If something goes wrong with the temperature reading, it is hard to tell where the failure occurred; especially in transmitters with no display. The first thing to check is usually the sensor; but many times the sensor is installed in a hard to reach or dangerous location. Using HART, identifying the problem area is as simple as connecting a HART Communicator anywhere in the loop and sending a fixed current signal; if the temperature reading device follows the test signal, then the failure is in the temperature sensor. If the temperature reading device does not follow the test signal, the failure is in the 4-20 mA output side.

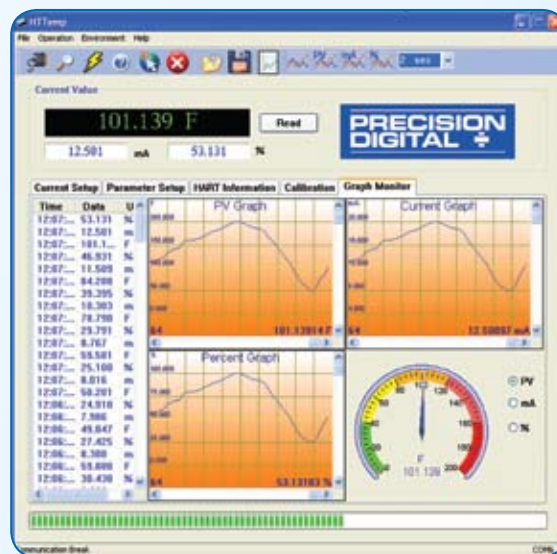


Competitive Pricing

The ExSense Series is offered at very competitive prices, they start as low as \$119 for the non-HART smart head mount transmitter, programmable with a USB modem and the free PC software provided. HART capable models start at \$189 for the head mount transmitter; other suppliers charge over \$300 for a similar device.

Free Programming Software

Some transmitter suppliers charge for the programming software. Precision Digital offers the ExSense Series programming software free of charge and it can be downloaded from www.predig.com. The USB modems are offered at very reasonable prices, starting at \$149 for the one used to program the hockey-puck models.



Complete Temperature Assembly

Simplify your ordering process by getting a complete temperature assembly from Precision Digital. Use the online ExSense Builder to select your transmitter, temperature probe, and thermowell; specify the temperature range and you will get all the parts needed for your temperature system. Avoid the headaches of getting components that do not match, from different suppliers. Order a complete temperature assembly from Precision Digital and make your life easier.



Online Tool To Make Your Job Easier: ExSense Builder

predig.com/ExSenseBuilder

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The ExSense Builder is an online tool that helps you specify the best temperature transmitter for your application. Whether you need a simple non-HART hockey-puck transmitter or a complete temperature assembly with an explosion-proof HART transmitter with display, temperature probe, and thermowell; the ExSense Builder walks you through the selection steps from start to finish giving you at the end a complete model number with pricing information.

Just click on the picture that represents the type of temperature transmitter that you need and let the ExSense Builder guide you through the selection process.

The screenshot shows the Precision Digital ExSense Builder web interface. At the top, there is a navigation bar with links for Home, Products, Online Tools, Videos, Resources, About Us, Store, and Contact. A search bar and a 'Sign Up' button are also present. The main content area is titled 'ExSense Builder' and features a 'SELECT PRODUCT BY TYPE' sidebar with categories like Digital Panel Meters, Field Mounted Products, Large Display Meters, Loop Powered Meters, Temperature Controllers, Temperature Transmitter Assemblies, Scanners, Multi-Channel Controllers, Flange Products, Pressure Gauges, Wireless Products, Enclosures, and Accessories. The main area displays five product options with images and 'Select' buttons: PD301 & PD302 (Head Mount Temp Transmitter), PD303 & PD304 (Head Mount Temp Transmitter Inside Connection Head), PD305 & PD306 (Head Mount Temp Transmitter Inside Connection Head with Probe), PD310 (HART® Temperature Transmitter with Display), and PD312 (HART® Temperature Transmitter with Display & Probe). A 'Previous Configuration' button is visible at the bottom.



www.predig.com

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