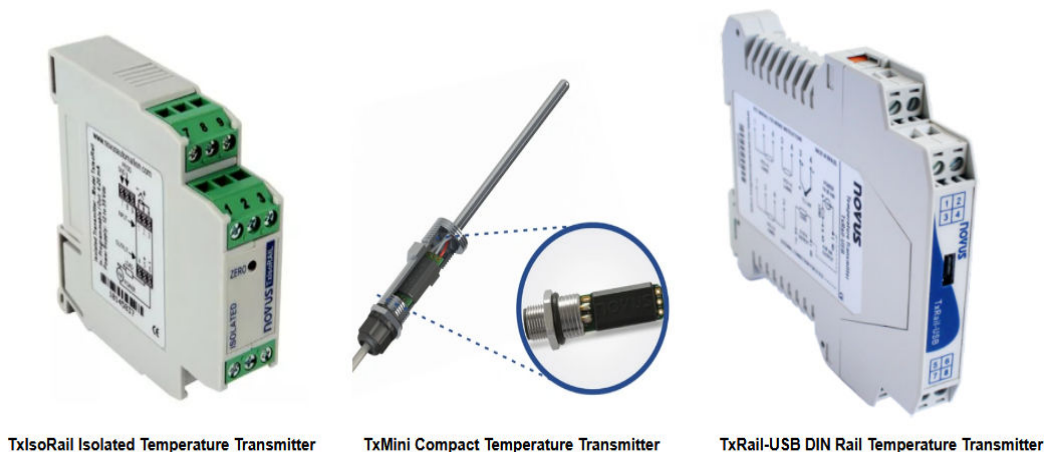


## Tx-Temperature Transmitters



Temperature transmitters TxIsoRail, TxMini, and TxRail-USB, represent three distinct approaches to industrial temperature measurement. Each device is engineered to deliver seamless integration, high accuracy, and flexible configuration.

TxIsoRail is an isolated, fully programmable DIN-rail transmitter dedicated to Pt100 and thermocouple sensors, offering broad compatibility with inputs ranging from thermocouples J, K, T, E, N, R, S, and B to Pt100, low-level voltage, and current signals. Its 1000 Vac isolation protects instrumentation from ground loop effects while preserving stable, interference-free measurements. With TxConfig software and a PC interface, users can adjust the input type and measurement range, as well as perform manual zero offset correction from the front panel. It delivers linearized 4-20 mA or 20-4 mA outputs and maintains high accuracy across a -40 to 85 °C operating range with programmable fault-response behaviour.

The TxMini family offers a compact alternative for applications requiring either 4-20 mA or RS485 Modbus-RTU communication. It supports Pt100 and Pt1000 sensors, the 4-20 mA model provide a 2 µA resolution, 0.1% accuracy at 25 °C, and a configurable temperature range from -200 to 650 °C. The sensors themselves are capable of measuring extremely low to very high temperatures, and the transmitter accommodates the full span of their operating capabilities. Such a wide range ensures the TxMini can be deployed in diverse processes (without requiring different transmitter models for different temperature extremes), such as cryogenic applications, refrigerated storage, environmental testing chambers, industrial heating processes etc. The RS485 versions operate from 7 to 40 Vdc and allows configuration through the Novus SigNow software or directly via Modbus commands, making them ideal for integration into PLC or SCADA networks. Their polyamide housing and -40 to 85 °C operating range ensures durability in demanding environments.

TxRail-USB combines broad compatibility with straightforward USB configuration. It accepts thermocouples, Pt100, Pt1000, NTC, and low-voltage signals, in addition to offering linearized 4-20 mA or 0-10 V outputs, (which is important to ensure that the electrical signal sent to the control system accurately reflects the actual temperature measured by the sensor). The Integrated cold junction compensation feature in the temperature transmitter thermocouple sensors auto corrects environmental, electrical, and sensor-related factors such as temperature drift, voltage offsets, etc, thereby neutralizing known sources of error. The sensor break detection is as per the NAMUR NE43 standards widely used for process control instrumentation. Other features include a direct PC connection through a micro-USB port making the TxRail-USB suitable for both simple as well as more advanced measurement tasks.

Call us for more information on temperature transmitters; we have a wide range to offer from budget friendly entry level devices to more advanced instruments to suit your needs.

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