



Which thermocouple transmitter do you recommend to accurately measure temperature in such narrow ranges as 0 to 50°C (32 to 122°F)?



M-System Model M2XT PC Programmable Thermocouple Transmitter accurately measures temperature even when the range is as narrow as 0 to 50°C. It uses a microprocessor to execute accurate cold junction compensation and precise linearization with the stored temperature-emf tables.

In order to measure temperature in a narrow range, you should choose a suitable thermocouple and wiring which is fully protected against electric noise. You should also choose a suitable thermocouple transmitter.

In case of a narrow temperature range, it is especially important that the thermocouple transmitter has an accurate cold junction compensation and precise linearization of temperature-emf. M-System Model M2XT Thermocouple Transmitter meets these requirements.

For cold junction compensation in M-System thermocouple transmitters, the temperature sensor of high accuracy and little heat mass are directly mounted on the input terminal. With the measured cold junction temperature, the compensation is made for each thermocouple type. For linearization, Model M2XT Transmitter stores the temperature-emf table of each thermocouple type in 1°C increment. Within each increment, the microprocessor calculates the measured temperature by proportion.

M-System has flexible solutions to meet your specific application and requirements. Consult [our Signal Conditioners Data Library](#). ■