



# LTA200JC DIN Rail Current Transmitter by Laurel Electronics



Model LTA200JC includes:

- **Type J thermocouple input, -210 to 760 degrees C**
- **4-20 mA or 0-10V isolated analog output**
- **Modbus or ASCII serial data output**
- **Universal 85-264 Vac power**
- **Two 130 mA solid state relays**
- **35 mm DIN rail mounting**

Model LTA200JC by Laurel Electronics is a Type J thermocouple input, -210 to 760 degrees C, 4-20 mA or 0-10V analog output. DIN rail transmitter. Model is configured for Standard main board, Universal 85-264 Vac power, and Relays not enabled.

The Laureate 4-20 mA thermocouple transmitter provides a linearized, highly accurate, stable and repeatable transmitter output for thermocouple types J, K, T, E, N, R or S. The thermocouple or RTD type and temperature range, specified in °C or °F, are user-selectable. The temperature range can be as wide as the entire span of the thermocouple type, or as narrow as 150 counts (such as 15.0°), limited only by considerations of electrical noise and digital filtering time constants.

Digital calibration of all thermocouple ranges is performed the factory, with calibration data stored in EEPROM on the signal conditioner board. This allows signal conditioner boards and ranges to be changed in the field with no need for recalibration. Cold junction compensation automatically corrects for temperature variations at the thermocouple reference junction at the transmitter. Open sensor indication is standard and may be set up to indicate either upscale or downscale.

Fast read rate at up to 50 or 60 conversions per second while integrating the signal over a full power line cycle is ideal for peak or valley capture and for real-time computer interface and control. Digital signal filtering modes are selectable for stable readings in electrically noisy environments. The internal digital readings and analog output can be individually selected to be either unfiltered or filtered.

Three analog transmitter output settings are jumper selectable: 4-20 mA, 0-20 mA or 0-10V. All selections provide 16-bit (0.0015%) resolution of output span and 0.02% output accuracy. The output tracks the reading from -99,999 to +99,999 counts that would be transmitted digitally. For DC signals, this reading has a rated accuracy of  $\hat{A}\pm 0.01\%$  of full scale input and can be scaled in software. Output isolation from signal and power grounds eliminates potential ground loop problems. The supply can drive 20 mA into a 500 ohm (or lower) load for 10V compliance, or 10V into a 5K ohm (or higher) load for 2 mA compliance.

Standard features of Laureate transmitters include:

- Analog transmitter output, 16-bit, user scalable and isolated. User selectable 4-20 mA, 0-20 mA or 0-10V levels.
- Serial communications, isolated. User selectable RS232 or RS485, half or full duplex, Modbus or Laurel ASCII protocol.
- Dual solid state relays for control or alarm, isolated. Rated 120 mA at 130 Vac or 170 Vdc.
- Transducer excitation output, isolated. User selectable 5V@100 mA, 10V@120 mA or 24V@50 mA.
- Universal AC power supply for 85-264 Vac.