



LTA200C427C DIN Rail Current Transmitter by Laurel Electronics



Model LTA200C427C includes:

- **Cu10 10 ohm copper RTD input, -100 to 260 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 LTA200C427C by Laurel Electronics is a Cu10 10 ohm copper RTD input, -100 to 260 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 RTD temperature transmitter provides a linearized, highly accurate, stable and repeatable transmitter output for 100 ohm platinum, 10 ohm copper and 120 ohm nickel RTDs. Pt 100 platinum RTDs can have a DIN alpha of 0.00385 or ANSI alpha of 0.00392. The 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 RTD 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 RTD 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. Open sensor indication is standard and may be set up to indicate either upscale or downscale. RTD excitation is provided by the transmitter. RTD connections can be of the 2-, 3- or 4-wire type. With 3- and 4-wire connections, the transmitter automatically compensates for lead resistance of the sensor.

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.

LTM Series serial output transmitters send data via an isolated serial port, which is user configurable for RS232 or RS485 and full or half duplex operation. Three protocols are user selectable: Modbus RTU, Modbus ASCII, or Laurel ASCII. Modbus operation is fully compliant with Modbus Over Serial Line Specification V1.0 (2002). The Laurel ASCII protocol allows up to 31 Laureate devices to be addressed on the same RS485 data line. It is simpler than the Modbus protocol and is recommended when all devices are Laureates. It also allows use of Laurel Datalogging Software.

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.