

## N3000 PID Temperature Controller



### Product Overview

- The N3000 Large Digit Universal Process Controller is a breakthrough in versatility holding in one single instrument all the major features required in the vast majority of industrial processes.
- Sophisticated and consistent software with advanced universal circuitry, the N3000 accepts configuration of both input signal and control output through the front keyboard without any internal hardware change.
- Power supply for remote loop powered transmitters is standard and is a must for high-end applications. From the very simple applications as a temperature controller to the most complex systems of distributed control with PLC's or SCADA networks, the N3000 is the right answer to your needs for industrial or laboratory automation.

### Features and Specifications

- Double LED display: red for PV (18 mm) and green for SV (13 mm)
- Accepts thermocouples type J, K, T, N, R, S; Pt100 RTD, linear 4-20 mA, 0-50 mV, 0-5 Vdc.
- Sampling rate: 4 measurements per second.
- Measured value resolution: 12,000 levels.
- One digital input for dry contact with 5 programmable functions.
- Remote setpoint input for 4-20 mA<sub>dc</sub> signal.
- Dual SPST 3 A / 250 Vac relays and dual SPDT 5 A / 250 Vac relays can be individually programmed for control or alarm.
- Isolated 4-20 mA output with 1500-level resolution, maximum 550 ohm load for control or PV/SV retransmission. It can also be configured for digital input or output (10 Vdc / 20 mA).
- Auto tuning PID control. Auto/Manual mode, bumpless transfer.
- Programmable Soft start up to 9999 seconds.
- Ramp and Soak: 7 programs of up to 7 segments each. Can be linked to create longer programs up to 49 segments
- Control output update: 250 ms.
- Up to four configurable relays, two timer alarms.
- Alarm functions: LO, HI, differential, differential LO, differential HI, sensor break and event.
- Alarm initial blocking function.
- Power: 100 to 240 Vac, 50/60 Hz; optional 24 Vdc/ac.
- Maximum consumption: 3 VA.
- 24 Vdc / 30 mA supply output for remote transmitter excitation.
- RS485 comm with Modbus RTU protocol (optional).
- Front panel: IP65, Polycarbonate UL94 V-2.

### HOW TO ORDER:

The basic unit includes one universal input, two SPST relays, two SPDT relays, 24Vdc output for powering remote transmitters, one digital input, a 4-20 mA input for remote setpoint and one 4-20 mA output which can also be used as a digital input or output.

**Option 1:** RS485 digital communication interface with Modbus RTU protocol.