



# Universal Process Controller



## N2000 e N2000S

The N2000 Universal Process Controller is a real breakthrough in versatility for holding in one single instrument all the major features required in the vast majority of industrial processes.

With a sophisticated and consistent software and its advanced truly universal circuitry, the N2000 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.

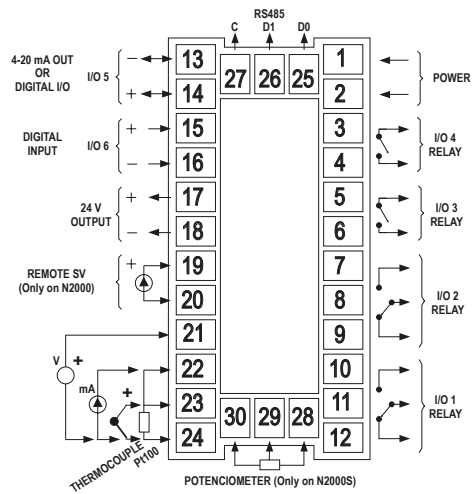
From the very simple applications as a temperature controller to the most complex systems of distributed control with PLC's or SCADA networks, the **N2000** is the right answer to your needs for industrial or laboratory automation.

The **N2000S** is specific for applications in controlling servo motorized valves, servo actuators and dampers by means of two time proportional relays.

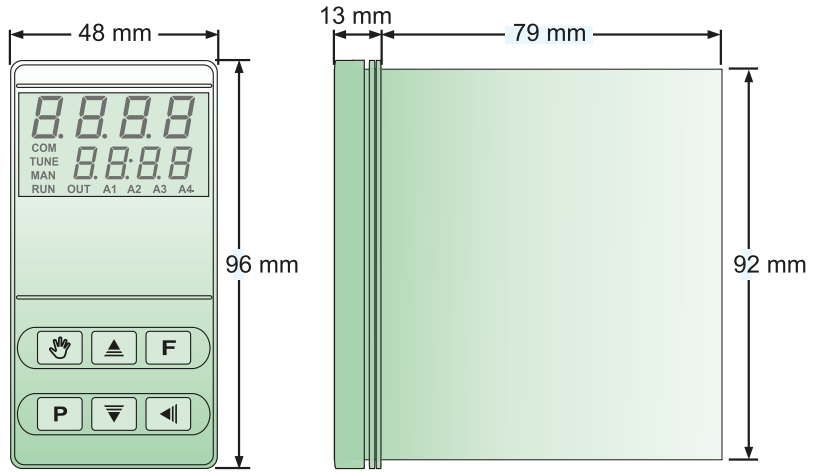
## Features and Specifications

- Accepts thermocouples type J, K, T, N, R, S; Pt100 RTD, linear 4-20 mA, 0-50 mV, 0-5 Vdc.
- Double LED display: red for PV and green for SV.
- Dual SPST 3A/250 Vac relays and dual SPDT 5A/250 Vac relays can be individually programmed for control or alarm.
- Isolated 4-20mA 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).
- Sampling rate: 4 measurements per second.
- One digital input for dry contact with 5 programmable functions.
- Remote setpoint input for 4-20 mAdc signal (N2000).
- 24 Vdc/30 mA supply output for remote transmitter excitation.
- RS485 comm with Modbus RTU protocol (optional).
- 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 of up to 49 segments.
- Measured value resolution: 12,000 levels.
- 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/dc,  $\pm 10\%$ , 50/60 Hz; Optional 24Vdc/ac.
- Maximum consumption: 4 VA.
- Front panel: IP65, Polycarbonate UL94 V-2.
- Back panel: IP20, ABS+PC UL94 V-0.
- Circuitry can be removed from the front panel.
- Operating environment: 0 to 55°C, 20 to 90%RH.
- Dimensions: 48 x 96 x 92 mm.
- Panel cutout: 45.5 x 93 mm.

## Electrical Connections



## Dimensions



## 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 .

In the **N2000S** model the remote setpoint input is replaced by a potentiometer input for indicating actuator positioning.

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