



TOTAL CONTROL UNIT (T-2000)

The T-2000 Pump Controller is ready to operate up to three fixed-speed pumps right out of the box. Ideal for Sewage Lift Stations and Elevated Tank with Well Pump applications. Simply add breakers, motor starters and liquid level sensing device. Special software or programming skills are not required. The T-2000 features an RS-232 Modbus ACSII radio interface, and is offered with an optional integrated network interface, each allowing the unit to function as an RTU (Remote Terminal Unit) in SCADA Systems. An Integrated Autodialer is also available with the unit.



KEY FEATURES:

- ◆ Configurable for 1, 2, or 3 Pumps
- ◆ Three "Fail-Safe" HOA Switches
- ◆ Integrated Elapsed Time Meters
- ◆ Use Floats and/or Level Transducer
- ◆ Integrated Pump Alternator
- ◆ 240 & 480 VAC 3-Phase Monitor
- ◆ Alarm Light & Horn Outputs
- ◆ On-Board Alarm Silence Button
- ◆ Integrated 115 VAC Power Supply
- ◆ M.O.V., Transorb & Opto-isolated
- ◆ 12 LEDs for Input & Output Status
- ◆ Two 12-Bit Analog (4-20) Inputs
- ◆ Tipping Bucket Rain Gauge Input
- ◆ 4 x 20 Character LCD & Keypad
- ◆ RS-485 Interface Connection
- ◆ RS-232 MODBUS ASCII Interface
- ◆ 71 Pre-set MODBUS I/O Registers
- ◆ Integrated Autodialer Available
- ◆ Integrated Network Interface Available
- ◆ Three Year Parts & Labor Warranty

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TECHNICAL SPECIFICATIONS:

T2000 Dimensions	5.75" X 8.75" X 5.45"
Supply Voltage	120VAC
Frequency	60 HZ
Current	0.5A
3-Phase Monitor	240 VAC / 480 VAC using external resistors
Battery Backup	12 VDC
Analog Inputs	4-20mA@250ohm /1-5V @100Kohm; both inputs are 12-bit accurate
Digital Input Voltages	10 - 30 volts AC/DC ~ 30 - 300 volts AC/DC with external resistors
Digital Input Impedance	6K ohms
Digital Outputs	120-240VAC, 60HZ, 1A, Pilot Duty
Bias	100 mA
RS-232 Interface	9600 BAUD serial interface for radio connection
RS-485 Interface	9600 BAUD serial interface for communication to Modbus ASCII devices
ISO+24V / ISOGND	24 VDC at 60 mA (100 mA max), unregulated, isolated
Input Protection	M.O.V., Transorb (Transient Voltage Suppressor), and Opto-isolated
Alarm Relays	120VAC, 60HZ, 0.5A, Tungsten, 0-24VDC, 1.0A
Alarm Light / Horn	Normally closed contacts
LCD w/Keypads	Liquid Crystal Display; keypad is used to page through programmed menu items
H-O-A Switches	3 x 3-position switches hardwired to 3 solid state control points for HOA operation
Environmental Conditions	Ambient Operating Temperature Range: -10°C (14°F) to 60°C (140°F). The upper temperature limit is 50°C (122°F) when using the recommended backup battery. Note that the LCD display may become unreadable at temperatures below 0°C. Relative Humidity: 0-100% Atmospheric Pressure: 75-106 KPa Overvoltage Category II Pollution Degree 2
Surge Tested	EMI Susceptibility to IEC61000-4-5 Surge Immunity Tests
Safety Approval	UL listed for Process Control Equipment (UL1092)



LCD DISPLAY:

The T2000 features a large 4-line x 20-character LCD, and in conjunction with the 12-button keypad, provides an operator interface for configuring, analyzing status information, viewing and resetting alarms. The contrast of the LCD is controlled by an onboard temperature sensor, which ensures that the LCD screen is easy to read in both high and low temperature conditions.

KEYPAD:

The unit's 12-button keypad can be used to page through onboard menu items, scroll through configuration options, and enter numeric data. The keypad includes the 0-9, a decimal point, Enter, Escape, and scrolling keys. Several keys are dual functional and is dependent on the current mode. The unit features a power key, that when pressed and held cycled power on or off.

SERVICE PORT:

The service port provides an RS-232 interface for diagnostics, configuration storage and updating. This service port allows a portable computer to be connected to the T2000 through an interface cable. The configuration can be uploaded from the T2000 and saved to a portable computer. If the T2000 is replaced, the saved configuration can be downloaded from the portable computer to the new unit.

WARRANTY:

This product carries a Three (3) Year Return to Factory Warranty covering defective parts and workmanship.

ORDER MODEL:

T2000 Total Control Unit
T2000-IP: Integrated Network Interface
T2000-AD: Integrated Autodialer