



# STATION CONTROLLER SC2000

**MADE IN  
THE U.S.A.**



UL FILE # E101681



## TYPICAL APPLICATIONS

Simplex, Duplex, Triplex or Quadraplex Pump Control  
Single Speed or Variable Speed Control

## DESCRIPTION

The SC2000 is a SCADA ready pump controller designed to perform level control in a wide range of lift station applications. The SC2000 operates the pumps based on the selected setup values and the wet well level signal. The level input source is menu selectable for either a 4-20 mA pressure transducer, or a conductance probe. The SC2000 alternates the pumps, performs lag pump delays, and provides high and low level alarms. The SC2000 has a variety of control options available in the setup menu that may be used to customize the controller for a specific application. Optional I/O is available for VFD speed control and for additional telemetry inputs. The SC2000 comes standard with an analog input for level control.

## ORDERING INFORMATION

SC2000 - X X

Product Type — (18 Discrete Inputs Standard)

Analog Outputs —

0 = No Analog Outputs  
1 = 1 Analog Output  
2 = 2 Analog Outputs  
3 = 3 Analog Outputs  
4 = 4 Analog Outputs

Analog Inputs —

0 = No Aux. Analog Inputs  
1 = 1 Aux. Analog Input  
2 = 2 Aux. Analog Inputs  
3 = 3 Aux. Analog Inputs  
4 = 4 Aux. Analog Inputs

For Isolated Analog Level Input, add S to end of part number.

For Ethernet Port, add E to end of part number.

## STATION CONTROLLER SC2000 STANDARD FEATURES:

- ◆ All Setup Parameter Values May be Viewed or Changed From the Front of Unit
- ◆ 120 VAC input power
- ◆ Level Input Source - Menu Selectable
  - Analog Level Input (4-20 mA from Pressure Transducer)
  - Level Probe (Conductance Probe with 10 Electrodes)
- ◆ 20 VDC Power for Analog Level Input Loop
- ◆ 6 Amp Relay Outputs for: Pump Call, High Level, and Low Level Alarms
- ◆ RS-232 Serial Port, Modbus RTU Protocol
- ◆ Optional Ethernet Port for Modbus TCP and Modbus RTU Protocols
- ◆ Alternation Modes - Menu Selectable
  - Standard Alternation
  - Pump 1 Always Lead - Stays On with Other Pumps
  - Pump 1 Always Lead - Turns Off with Other Pumps On
  - Split Alternation - Pumps 1 & 2, and Pumps 3 & 4
  - Fixed Sequence - Pump 1 Always Leads
  - Stepped On/Off - Only One Pump Runs at a Time
- ◆ Alternation - First On - Last Off or First On - First Off
- ◆ Alternator Logic Skips Disabled Pumps
- ◆ Remembers Lead Pump Position During Power Outage
- ◆ Timed [1 minute] Level Simulation
- ◆ Security Code Protected Parameter Setup
- ◆ 18 Discrete Inputs that can be Programmed for the Following Functions:
  - Pump Disable with HOA in OFF, or Pump Fault
  - External Lead Pump Selector Switch
  - All Pump Disable - for Connection to Phase Monitor
  - Limit Number of Pumps Called While on Emergency Power
  - Alternation by External Time Clock
  - Freeze Wet Well Level During Bubbler Tube Purge
  - Call Pump Last - for Connection to VFD/Bypass Logic
  - Float Switch Backup
  - A Variety of Telemetry Functions
- ◆ Status of Discrete Inputs May Be Viewed From Front of Controller
- ◆ Flush Cycle Feature to Reduce Sludge Build-up within the Wetwell
- ◆ Flow Calculator Feature for Latest Inflow Rate, Average Daily Flow, Pump Outflow Rate
- ◆ Unused Output Relays Programmable via SCADA for Additional Control Uses
- ◆ Plug-In Style Connectors
- ◆ Full manual available in pdf format at our website: [www.mpelectronics.com](http://www.mpelectronics.com)

## SPECIFICATIONS

Input Power:	120VAC $\pm 10\%$ , 13VA max	Power for Discrete Inputs:	24VDC Unregulated Transient Protected
Agency Approvals:	UL 508, CAN/CSA		
Ambient Operating Temp:		Power for Analog Input:	20VDC $\pm 1V$ Regulated Transient Protected
Without Analog Outputs:	-20°C to +65°C		
With Analog Outputs:	-20°C to +50°C	Analog Outputs:	Isolated 4-20mA Maximum Load 600 $\Omega$ Transient Protected
Level Display:	3 Digit, 7 Segment LED		
Level Display Range:	0 - 999 ft. Decimal Point Position Menu Selectable	Aux. Analog Inputs:	Isolated 4-20mA 250 $\Omega$ Load Transient Protected
Indicators:	LED		
Color:	White with Blue Lettering	Power for Level Probe:	$\pm 8V$ Square-Wave, 60 Hz
Relays:	6A @250VAC		
Analog Level Input:	4-20mA, 250 $\Omega$ Load Transient Protected		
External Dimensions:	6.9"H x 8.5" W x 4.9" D		
Cut Out Dimensions:	6.0" H x 7.5" W		