



# STATION CONTROLLER SC1000

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



UL FILE # E101681



## TYPICAL APPLICATIONS

Simplex, Duplex, Triplex Single Speed Pump Control  
Level Pump Down (Empty a Tank) or Pump Up (Fill a Tank) Control

## DESCRIPTION

The SC1000 is a SCADA ready pump controller designed to perform level control in a wide range of lift station applications. The SC1000 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 4-20mA pressure transducer, or a 10 point conductance probe. The SC1000 alternates the pumps, performs lag pump delays, and provides high and low level alarms. The SC1000 has a variety of control options available in the setup menu that may be used to customize the controller for a specific application. The SC1000 comes standard with an analog input for level control.

## ORDERING INFORMATION

Product Type SC1000  
(12 Discrete Inputs Standard)

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

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

## STATION CONTROLLER SC1000 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 (4-20mA 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
  - Pumps 1 & 2 Alternate, and Pump 3 Always Last
  - 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
- ◆ Plug-in Style Connectors
- ◆ 12 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
  - 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
- ◆ Full manual available in pdf format at our website: [www.mpelectronics.com](http://www.mpelectronics.com)

## SPECIFICATIONS

Input Power:	120VAC ±10%, 13VA max
Agency Approvals:	UL 508, CAN/CSA
Ambient Operating Temp:	-20°C to +65°C
Level Display:	3 Digit, 7 Segment LED
Level Display Range:	0 - 999 ft.
	Decimal Point Position
	Menu Selectable
Indicators:	LED
Color:	White with Blue Lettering
Relays:	6A @250VAC
Level Analog Input:	4-20mA, 250Ω Load
	Transient Protected
External Dimensions:	6.9"H x 8.5" W x 4.1" D
Cut Out Dimensions:	6.0" H x 7.5" W

Power for Discrete Inputs:	24VDC Unregulated Transient Protected
Power for Analog Regulated Input:	20VDC ±1V Transient Protected
Power For Level Probe:	±8V Square-Wave, 60 Hz.