

# Sigma Controls, Inc.

PROCESS CONTROLS AND INSTRUMENTATION

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## SERIES 1000 CONDUCTANCE LEVEL CONTROL SYSTEM

### FEATURES



- AUTOMATIC, PROVIDING TOTAL CONTROL
- CONSISTENT, AND ACCURATE TO 1/16"
- RELIABLE, WITH NO MOVING PARTS TO CLOG OR JAM
- SOLID STATE WITH SIMPLE CIRCUITRY THAT OPERATES AT LOW, SAFE VOLTAGES
- COMPATIBLE WITH A WIDE RANGE OF LIQUIDS, INCLUDING THOSE WITH VERY LOW CONDUCTANCE
- CAPABLE OF OPERATING IN A WIDE RANGE OF MODES, INCLUDING INVERSE OPERATION
- LOW COST FOR EQUIPMENT INSTALLATION AND MAINTENANCE
- ECONOMICAL OF SPACE, WITH MULTIPLE FUNCTIONS HANDLED BY MULTIPLE ELECTRODES IN THE SAME FITTING

### Sigma Control Systems: Relays, Electrodes, Fittings and Control Panels

The Objective: Accurate and dependable control of liquid levels can be essential to prevent the release of pollutants, maintain proper flow of process liquids, prevent loss of expensive materials and to protect employees and equipment.

The Technology: Conductance level control systems utilize the capability of the liquid to conduct a small electric current between electrodes installed at a predetermined level to energize or de-energize a relay.

Applications: High or low level alarms or controls for boiler, process and storage tanks; activation of sump pumps; and process controls including regulating the water flow in cooling towers.

Key element of the Conductance Level Control System for liquids is the relay that is activated when the liquid level reaches or falls below the tips of the electrodes.

Sigma Controls relays can be ordered separately or as part of the system. Sigma's relays come as plug-in modules or as open circuit boards ready to be wired into the control panel.

The relays come in two models: single pole, single throw and double pole, double throw to handle all applications.

The standard relay can be used for either differential or single-level control. The unit uses a standard 8-pin socket which can be purchased as an option. Sensitivity for the standard model is up to 50K OHMS.

### SPECIFICATIONS

#### SUPPLY VOLTAGE:

Standard: 120 VAC, 50/60 HZ  
Optional: 240 VAC or 24 VA

#### CONTACT RATINGS:

Standard: Single pole, single throw  
10 AMP Resistive 1/3 HP  
Optional: Double pole, double throw  
10 AMP Resistive 1/3 HP

#### CONTACT INDICATOR:

LED, Open or Closed

#### MODE OF OPERATION:

Factory set for direct or inverse operation

#### SENSITIVITY:

Standard: 0-50 K  
Optional: 50 K – 1 M

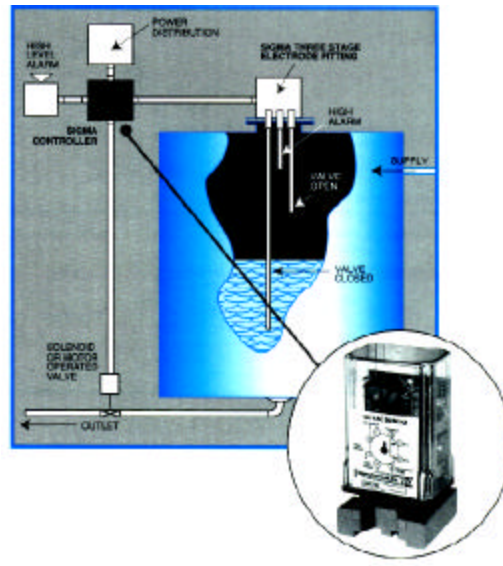
#### TIME DELAY:

Factory set at 0.5 Seconds

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1000-42400

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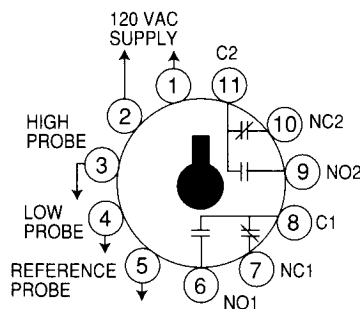
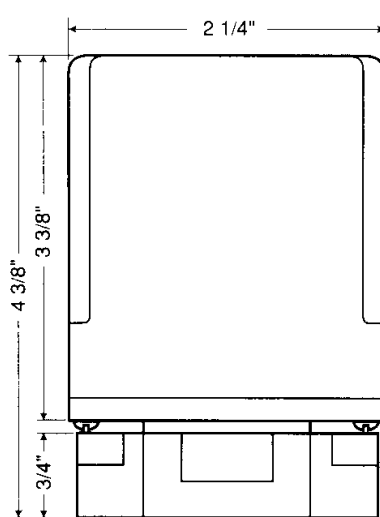
### ORDERING INFORMATION

MODEL #	OPERATING VOLTAGE	SENSITIVITY	TIME DELAY	SOCKET
100 SPDT	120 VAC	A = 0-15K OHMS	1 = NONE	8 = 8 PIN
200 DPDT	240 VAC	B = 0-50 K OHMS	2 = ON MAKE	11 = 11 PIN
	24 VAC	C = 50 K MEG OHMS	3 = ON BREAK	

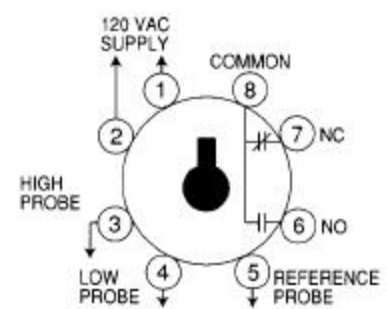
COMPLETE MODEL #: 100-120-A-1-8

SPDT UNITS OPERATE ON 120 VAC. SENSITIVITY OF LESS THAN 15 K OHMS WITH 8-PIN SOCKET.

### DIMENSIONAL DIAGRAMS



**11-PIN SOCKET**



**8-PIN SOCKET**