# Sigma Controls, Inc. PROCESS CONTROLS AND INSTRUMENTATION

217 S. Fifth Street, Perkasie, PA 18944 PH: 215-257-3412 FAX: 215-257-3416

# SERIES 1000 CONDUCTANCE LEVEL CONTROL SYSTEM





#### **FEATURES**

- Compact 8-pin/11-Pin Octal Case
- Modular 'Plug-in' Design
- Integral LED Indicating Light
- Solid State Design, Low Voltage Output
- Single or Differential Control
- Optional Time Delay Available
- Wide Sensitivity Range
- SPDT or DPDT 10 AMP Contacts
- Wide Range of Available Probe Designs

#### **APPLICATIONS**

- POINT LEVEL CONTROL
- ON/OFF PUMP CONTROL
  - LEVEL ALARMS
  - DIRECT OR INVERSE OPERATION
  - MAKE-UP VALUE CONTROL
- SEAL LEAK MONITORING IN
- PUMPS
- WELL LEVEL CONTROL WITH SUBMERSIBLE PROBES

The Sigma 1000 series solid state conductance level relay utilizes the ability of a conductive fluid to conduct a small current between metallic electrodes submersed in the fluid.

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. An integral LED indicator indicates the relay status.

The relay accepts up to three electrodes for insulated or non-metallic vessels. Only two electrodes are required where the vessel wall is in electrical contact with the fluid being measured.

Various sensitivities are available for a range of liquids from low to high specific resistance.

The standard relay can be used for either differential or single-level control. The unit uses a standard 8 or 11 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 – 1M

#### TIME DELAY:

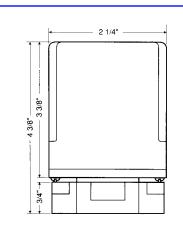
Factory set at 0-.5 Seconds Optional Times Available

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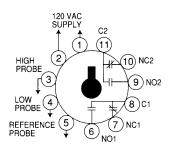
#### **ORDERING INFORMATION**

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	

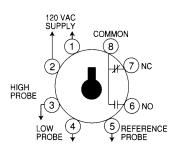
**COMPLETE MODEL #: 100-120-A-1-8** 



### **DIMENSIONAL DIAGRAMS**



11-PIN SOCKET



**8-PIN SOCKET** 

\*NOTE: For single point alarm service jumper pins 3 & 4 together.



MODEL 200

Suspension style level probe, 316SS probe in a protective PVC shield. Designed for submersible applications in water, wells, tanks, etc...



MODEL 201

Single point, pressure tight probe 1/4" NPT, Brass or Stainless Steel with Stainless Steel Rod.



MODEL 200-SW

PVC suspension wire for 200 Series suspended electrodes.



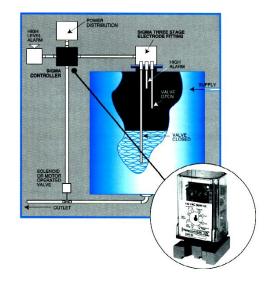
MODEL 203

Flanged 3" X 150" PVC holder capable of accepting up to 6 brass or S.S. rod holders. Nema 4 weatherproof junction/termination enclosure.



MODEL 202

Single or multipoint rod holder with up to 4 brass or S.S. rod holders in a 2" NPT threaded PVC holder. Nema 4 weatherproof junction/termination enclosure.





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