



## MULTI-CHANNEL CONTROLLER MODEL CN-9000

The CN-9000 was designed to be a modular controller. Its interconnect board accepts plug-in input modules, plug-in output modules and plug-in feature modules. This design provides a controller that is:

- FLEXIBLE** It provides almost infinite combination of configurations.
- SIMPLE** It is field configurable, adjustable and serviceable with minimal tools and equipment (any test equipment needed is non proprietary and can be purchased "off the shelf").
- EXPANDABLE** It facilitates adding and removing modules as needed.
- CUSTOMIZABLE** Special feature modules can be designed to your specifications if no standard module is available.
- AFFORDABLE** The user pays only for what is needed, nothing more.

### Specifications

- Channels:** Up to 12 modules per interconnect board (typical - 11 input modules and one 3 relay output module)
- Input Power:** 120 VAC 60 HZ (optional 24 VAC)
- Input Power Fuse:** 2 Amp (slo-blo)
- Sensor Power:** 12-15 VDC @ 0.2 Amp total (optional 24-28 VAC)
- Operating Temp. Range:** -30°C to + 65°C
- Input Module Display:** 3 color LED
- Input Impedance:** 100 ohms
- Output Module Display:** Each relay contact has LED to indicate closure
- Output Module Relays:** 3 DPST relays, 5 Amp @ 250 VAC/30 VDC non-latching
- Relay Configuration:** Two relays are configurable as RTP1, RTP2

## **CN-9000 MODULES:**

### **Interconnect board:**

This board provides power and a connection path between plug-in modules.

- The base board accommodates a maximum of 12 input, output or feature modules.
- An unlimited number of interconnect boards can be added.

### **Input Module:**

The input module provides connection for a sensors' data signal and power requirement. Circuitry is also provided to condition the signal sensor for processing. The processed signals are then output to other modules via the interconnect board. Because power requirements between sensors can also vary, input modules can be configured to supply virtually any low voltage power source. The basic input module has:

- 2 user adjustable alarm level outputs.
- 1 fault output.
- Quick connect terminals provided for sensor input (Power, Ground and Signal )
- 16 position headers for each alarm level to select which interconnect board channel carries the output signal.
- Tri-color LED to indicate status:
  - Green – sensor okay
  - Amber – low alarm
  - Red – high alarm
  - No Light – Fault

### **Output Module:**

The output module inputs signals from the interconnect board and directs them to output devices as required by the end user. An output module can provide a simple contact closure or a complex data stream that can be used by a building management system. The basic output module has:

- 3 relays available – rated @ 5 amps 250 VAC, 30 VDC.
- Terminal blocks for relay output connection to desired devices.
- 16 position headers for each alarm relay to select which interconnect board channel activates the relay.

### **Feature Module:**

Feature modules allow intermediate logic processing of system signals. These signals can be any combination of inputs from the interconnect board or onboard user wiring terminals. Processed signals can then be output to the interconnect board for use by other modules and/or to user wiring terminals for connection to external devices. One example would be a module that processes a high gas concentration level from an input/process module and makes a dry contact closure to power a horn. If a push button is pressed (input through wiring terminals) the horn is silenced for a user selectable time period.

### **Power Supply:**

A 115 VAC to 12 VDC power supply is provided to power the controller modules and sensors.

This power supply is sized to suit the number of sensor channels required and auxiliary devices to be operated.

### **Enclosure:**

The CN-9000 enclosure is sized to suit the number of interconnect boards and power supply requirements.

- Material: enameled steel (aluminum and PVC/ABS can be sourced)
- Size: 16" x 16" x 4" (1-12 slot, filled, interconnect board + p/s)
- Weight: 18 lbs