



The **Multistat Model 90**  
Flexible, Reliable, and Precise

**Easily Customized**

**Works on 80 to 280 VAC**

**15 Amp Load Capacity**

**RS232 & Alarming Options**

## The Model 90 PID Controller



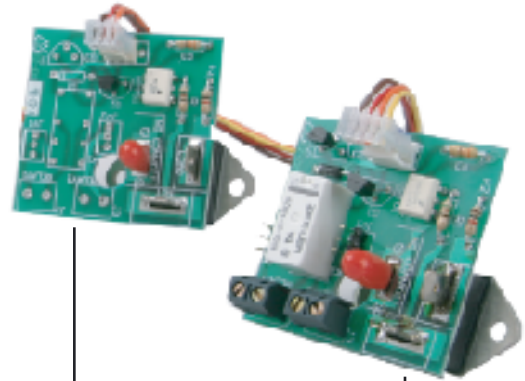
Easy to Read Bright LED Display  
Compatible with a variety of probes  
Many Optional Features (listed on back)  
Universal Power Module Can be Placed Near the Output

## Flexible Controls for the Global Marketplace

The DCS **Model 90** is the latest evolution in the Multistat™ series of PID controls. Designed for the global equipment market, the **Model 90** can operate from direct or alternating current power mains from 80 to 280 volts, so it can be used anywhere in the world without modification or adjustment. This single-channel PID controller will accurately control single electrical loads of up to 15 Amps.

All of the control electronics and the user interface are built on a compact (13.5 x 6 cm) circuit board for easy mounting and clear display. Large bright LED digits make the display easy to read from across the room.

Load power is controlled by a second smaller (4 x 5 cm) power module that can be located in close proximity to the output. This eliminates high current wiring having to be run to the front control panel. This power module is connected to the main circuit board with a low voltage cable.



Optional Auxillary Control Channel

Universal Power Module Can Be Placed Near the Output to Minimize High Current Wiring

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## Configured to Meet **YOUR** Application

We have designed the **Model 90** to be extremely flexible because we understand the equipment market's needs. Digital Control Systems can easily tailor this precise parametric controller to your requirements.

### DCS Can Help You to Differentiate

The extensive options available for the **Model 90** make it easy to differentiate similar models in your equipment portfolio, as well as stand apart from the competition. Options such as an audible alarm, 'heater activated' LED annunciator, or a timer can be easily installed and uniquely cataloged for your products. All LED displays are available in red, yellow and green.

The optional RS-232 interface feature can provide full remote operation of the controller. Data logging at a user specified interval is also supported.

Multiple control and sensor configurations are easily supported. For direct temperature control the **Model 90** can be used with economical IC sensors (for operation below 100 °C), RTDs, or type 'J' and 'K' thermocouples. A direct voltage (5 volts Max) input configuration is also available for control of parameters measured by external sensors such as humidity or CO<sub>2</sub>.

### Available Options

- Audible Alarm
- Alarm Relay
- Auxiliary Control Channel
- Four Digit LED Display
- Load Active Indicator
- RS-232 with Remote Control
- Refrigeration/Freezer Mode
- Timer Function
- Compatible with Multiple Sensors

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Parameter	Value
Control Display (Please specify when ordering)	3 or 4 Digit, 0.56" 7 Segment LED Optional 'Output Active' LED (Green is Standard, Red & Yellow Available)
Operator Controls	Front Panel 'Up' and 'Down' Buttons On-Board Jumpers for Optional Control
Resolution (Control and Display)	+/- 1 Least Significant Display Digit
Control Algorithm	PID
Load Control	PWN Triac Contact Rated 15 Amps RMS
Sensor Inputs Available (Please specify when ordering)	10 mV / °C Integrated Sensor Type 'J' or 'K' Thermocouple 100 Ohm RTD Analog Voltage (5 volts max)
Alarm Contact (optional)	Two Dry Contacts Field-Configurable as NO or NC. Rated 110 VAC, 1A.
Alarm Sounder (optional)	85dB, 2 KHz Beeper
Operating Power Requirements	80 - 280 VAC, 50 - 60 Hz, 5W Max
Ambient Operating Conditions	0 - 50°C 0 - 80 % RH (Non-condensing) Pollution Degree Two
Mechanical Dimensions	Main ECB: 5.25 x 2.35 inches (13.5 x 6 cm) Power ECB: 1.9 x 2 inches (5 x 5 cm)
Weight	Main ECB: 2.3 Oz (65g) Power ECB: 1.5 Oz (42 g)
Ambient Storage Conditions	-30 to 85°C 0 to 90 % RH (Non-condensing)

### Other PID Controls from Digital Control Systems Include:

Model 120 Temperature Control

Model 220 DC Motor Speed Control

Digital Control Systems, Inc. 7401 SW Capitol Highway Portland, OR 97219 USA  
Phone: (503)246-8110 Toll Free: (877)468-6337 Fax: (503)246-6747 <http://www.dcs-inc.net>

**COMMITTED TO YOUR SUCCESS**