

# 2116 MODEL



## Temperature Controller

- **PID or On/Off control**
- **Heating and cooling**
- **Customized operator interface**
- **SSRx Load Doctor™ diagnostics**
- **Multiple alarms on a single output**
- **Self-tuning with overshoot inhibition**
- **Setpoint rate limit**
- **Scalable linear input**
- **Site configurable**
- **85 to 264Vac supply**
- **Plug-in from front**
- **IP 65, NEMA 4X panel sealing**
- **Compliant with European EMC and low voltage safety directives**

The 2116 is a PID or On/Off temperature controller, with self-tuning, in a compact 1/16 DIN size [1.89x1.89x4.06in (48x48x103mm)]. It has a single input, configurable on-site for either thermocouple, resistance thermometer and linear millivolts or milliamps. It has two outputs: a logic output for operating a solid state contactor and a relay output, either of which is configurable for heating, cooling or alarms.

### Precise control

An advanced PID control algorithm gives stable 'Straight-line' control of the process. A one-shot tuner is provided to set up the PID values and calculate the overshoot inhibition parameters.

### SSRx Load Doctor™ diagnostics

Employing patented PDSIO® technology, the Load Doctor™ Diagnostics are a major innovation in the 2116. When used in combination with a Eurotherm TE10S solid state contactor (SSC), it allows the logic output of a 2116 to transmit the power demand signal and simultaneously read back a load fault alarm on the same pair of wires. This alarm will flash as a message on the controller front panel and can trip the alarm relay. It indicates that there is a fault in the heating circuit caused by: contactor failed "ON", contactor failed "OFF", fuse "OPEN", heater "OPEN" or wiring "OPEN."

### Universal input

An advanced analog to digital converter samples the input at 5Hz and continuously corrects it for drift. This gives high stability and rapid response to process changes. The input covers all thermocouple types, Pt100 RTD and linear millivolts or milliamps. Input filtering from 1.0 to 999.9 seconds is included.

### Customized operation

Custom LEDs provide a bright, clear display of the measured temperature. The setpoint is displayed and adjusted by pressing the raise or lower buttons. Tactile buttons ensure positive operation. Access to other parameters is simple and easy to understand and can be customized to present only those parameters that need to be viewed or adjusted. All other parameters are locked away under password protection.

### Alarms

Up to three process alarms can be combined onto a single output. They can be full scale high or low and deviation from setpoint alarm. They can also be configured as 'blocking' alarms which means they will become active only after entering a safe state.



**EUROTHERM  
CONTROLS**

**2116  
Temperature  
Controller**



