

8003

1/8 DIN

Temperature Controller



- Dual 3-Digit Display of Process and Setpoint
- SMART Self-Tuning with Fuzzy Logic
- Heat/Cool Control
- Soft Start Power Limiting on Power Up
- Universal Inputs: TC and RTD
- Programmable Ramp on Setpoint Changes
- Switching Power Supply from 100-240V or 24 Vac/Vdc, 50/60 Hz
- NEMA 4X Front Faceplate
- IEC 801-4 Noise Immunity
- Three Year Warranty

Description

The fully field configurable model 8003 controller combines advanced hardware design and sophisticated electronic control technology into a compact, reliable 1/8 DIN package. Easy to install and operate, it requires only panel cutout, instrument mounting, setpoint and alarm setpoint adjustment to set up.

Sophisticated SMART self-tuning control features include:

- Start-up and continuous in-process tuning
- Continuous self-tuning without artificial upset
- Proprietary control algorithm using fuzzy logic/artificial intelligence concepts
- Proven maximum suppression of overshoot.

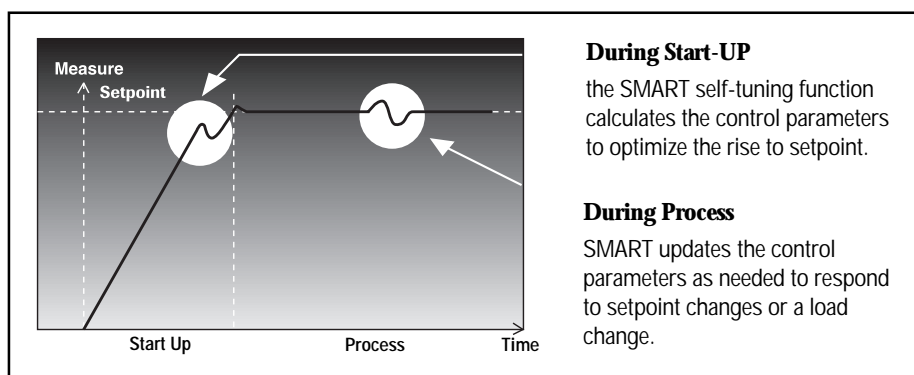
Features

- Output Disable Function
- Programmable Ramp on Setpoint Changes to Allow Even Heating
- Programmable Alarm Functions for each Alarm

- Heat/Cool Control Features Selection of Cooling Medium and Overlap
- Programmable Ramp on Setpoint Change
- Control Output "Turn-Off" via Pushbuttons
- Adjustable Control Output Rate of Change
- SoftStart-Timed Output Power Limit on Start-Up
- Alarm Inhibit

Applications

- Polymerization and synthetic fiber plants
- Packaging and packing equipment
- Extrusion lines, co-extrusion lines, plastic films and injection presses
- Rubber production plants
- Fermentation equipment, reactors for chemical and pharmaceutical industries
- Food industries
- Environmental chambers and refrigeration



During Start-UP

the SMART self-tuning function calculates the control parameters to optimize the rise to setpoint.

During Process

SMART updates the control parameters as needed to respond to setpoint changes or a load change.

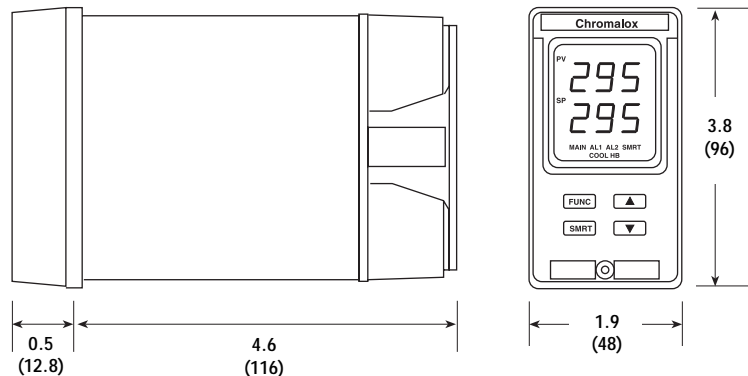
8003

1/8 DIN Temperature Controller *(cont'd.)*

Specifications

Control Modes	Field Selectable	On/Off PID SMART (Autotune)	
Outputs	Output #1 –Heat or Cool Output #2 –Cool or Alarm Output #3 (option) –Alarm	Field Selectable Relay or SSR Drive Field Selectable Relay or SSR Drive Relay	
Alarm Features	Functions	Field Selectable Process, Deviation, Band	
Input Specifications			
Sensor Type	Range* °F	°C	
Thermocouple	J	0-999	0-800
	K	0-999	0-999
	L	0-999	0-800
	N	0-999	0-999
RTD	100 Ohm Pt	-	-19.9 to +99.9
	100 Ohm Pt	-199 to +999	-199 to +500
*Field Programmable for °C or °F			
Instrument Power	100-240 Vac, +10%, -15%, 50-60 Hz, 24 Vac/Vdc		
Operating Environment	30-120°F (0-50°C) ambient with relative humidity less than 85%		

Dimensions



All Dimensions in Inches (mm)

Ordering Information

Complete the Model Number using the Matrix provided.

In Stock:

Model	PCN
8003-11030	306202
8003-11130	306210

Model	1/8 DIN Temperature Controller					
8003	SMART Self-Tuning, 2 Outputs (Heat/Cool or Control/Alarm), Dual 3-Digit Display of Process and Setpoint, Programmable Alarms, IP54 Splashproof Faceplate.					
Code	Output 1 - Heat or Cool					
1	SPDT Relay, 3 Amps at 250 Vac (Resistive) or SSR Drive, 14V @ 20 mA, Jumper Selectable					
Code	Output 2 - Cool or Alarm					
1	Relay, 2 Amps at 250 Vac (Resistive) or SSR Drive, 14V @ 20 mA, Jumper Selectable					
Code	Output 3 - Alarm					
0	None					
1	Alarm #2, 2 Amps at 250 Vac (Resistive load)					
Code	Power Supply					
3	100/240 Vac					
5	24 Vac/Vdc					
Code	0 Add to complete model number					
8003 - 1 1 1 3 0	Typical Model Number					

Single Channel
Controllers