



## SCC4 - Multiple Modulating Boiler Control

## SCCX6 - Six Boiler Extension Module

### Overview

The SCC4 is a Modulating Boiler Control which can directly control the boilers firing rate to provide a stable system temperature while maximizing fuel savings. The SCC4 uses advanced PID logic to calculate each boiler's firing rate and quickly adjust to changes in the system without excessive cycling of the boilers.

### Features

- **Modulate up to Sixteen Prestige Boilers**

The SCC4 can modulate up to four Prestige Boilers to maintain the desired system set point. The SCC4 can be expanded by adding up to two SCCX6 Extension modules each capable of modulating an additional six boilers.
- **Parallel or Normal Modulation**

The SCC4 can be configured for Normal Modulation where boilers are staged on one after another to satisfy the heating load. The SCC4 can also be configured for Parallel Modulation where all boilers modulate together at the same firing rate for improved system efficiency when using Prestige Boilers.
- **Fixed Set Point or Outdoor Reset**

The SCC4 can modulate multiple boilers to maintain either a fixed set point or operate using the outdoor reset function.
- **Domestic Hot Water**

The SCC4 can be configured to accept a domestic hot water (DHW) call and temporarily raise the system set point. The system pump can also be disabled to provide DHW priority.
- **Night Setback**

The SCC4 has a built-in Night Setback feature which can lower the set point when less heat is required such as on nights or weekends. A Boost option can be used to quickly bring the room temperature back to normal after the Night Setback period.
- **Outdoor Cutoff**

The optional Outdoor Cutoff function can disable the system when the outdoor temperature rises and heat is no longer required.
- **Multiple Rotation Options**

The SCC4 provides multiple lead boiler rotation options to equalize runtimes among all boilers. Options include fixed lead, automatic rotation based on time, and last on / last off.
- **Standby Boiler**

A boiler configured for standby operation will always be the last boiler enabled. This feature is useful for systems with a mix of low and high efficiency boilers. The low efficiency boiler can be configured for standby operation and will only be enabled during periods of high demand.
- **System Output**

The SCC4 has a System Output which can be used to operate a system pump or combustion air damper.
- **EMS/BMS Interface**

The optional SCCI EMS/BMS Interface can be used to allow an Energy Management System or Building Management System (EMS/BMS) to send a system set point to the SCC4.
- **Digital Display**

Large 7 x 21 character graphical display provides status information as well as easy parameter adjustments in plain English.
- **English or Metric Units**

The SCC4 can be configured to operate using either English or Metric units.
- **Preconfigured for Prestige Boilers**

The SCC4 is preconfigured for Prestige Boilers to save installation time and get the system operational as quickly as possible.

	Item Description
PSCON03	SCC4 Multiple Modulating Boiler Control (Includes System and Outdoor Temperature Sensors)
PSCON04	SCCX6 Six Boiler Extension Module ( Includes PSCAB01 Communication Cable)
PSCON08	SCCI EMS/BMS Interface

## Specifications

Voltage Input:	120VAC 60 Hz
Power Consumption:	12 VA Max
Operating Temperature:	20°F (-7°C) to 120°F (49°C)
Operating Humidity:	20% to 80% non-condensing
Dimensions:	11"W x 9"H x 3 3/4"D
Weight:	2.5 pounds

## SCC4 Specifications

Lead Stage Rotation:	Time (1 to 1440 Hours (60 days)), Manual, Last-On
Pump Output:	(1) N.O.S.P.S.T
Boiler Modes:	Auto, Manual (0% - 100%), Standby, On, Off
Standby Time:	.1 to 60 minutes
Modulating Output Types:	Total of four outputs. Can be either Current (4-20mA) or VDC (0-5V, 0-10V, 1-5V, 2-10V)
Output Relay Ratings:	(5) 1 Amp Inductive (1/8 HP), 6 Amp resistive at 120 VAV 60 Hz, 15A total for all circuits
Add-On SCCX6 Extension Panels:	Up to two SCCX6 Extension Panels using RS485
Ignition Point %:	.1 to 50%
Modulation Start Point %:	.0 to 100%
Modulation Modes:	Normal or Parallel
Temperature Display:	Fahrenheit (°F) and Celsius (°C)
Display	Graphical Alphanumeric (7 rows x 21 char. each)
LED:	(1) System Output Relay, (4) Boiler Output Relays
Sensor Ranges	-35°F (-37°C) to 250°F (121°C)
Outdoor Cutoff Range:	20°F (-7°C) to 100°F (38°C), ON and OFF
Reset Ratio Range:	(1.00 : 4:00) to (4:00 : 1.00) (Outdoor : System Water)
Offset Adjustment:	-50°F (-28°C) to 50°F (28°C)
Minimum Water Temperature:	70°F (21°C) to 180°F (82°C)
Maximum Water Temperature (Reset Only):	90°F (32°C) to 240°F (116°C)
Set Point Temperature Range	70°F (21°C) to 250°F (121°C)
EMS Temperature Range	70°F (21°C) to 240°F (116°C)
Domestic Hot Water	with Priority, without Priority, without Priority in Summer
DHW Set Point Temperature Range:	140°F (60°C) to 200°F (93°C)
Pump Run-On:	.0 to 360 minutes
Purge Delay:	.0 to 10.0 minutes
Lag Delay:	.0 to 60 minutes
Last Stage Hold:	0°F (0°C) to 30°F (17°C)
Schedules:	(1) day and (1) night (Setback) settings per day (require shutdown or Tstat mode)
Night Setback:	0°F (0°C) to 75°F (42°C)
Power Backup:	Lithium coin battery, 100 days minimum 5 year replacement (maintains clock in power outages)
External Inputs:	Tstat Input/Shutdown Input/Setback Input, and Prove Input/DHW Input (dry contacts only)
Season:	Winter and Summer

## SCCX6 Specifications

(Each SCCX6 Extension can add up to (6) additional modulating boilers. A maximum of two SCCX6 Extensions can be added to a single SCC4)

Extension Numbering:	Toggle Switch A (stages E-J, LEDs are Green) or B (Stages K-P, LEDs are Red)
Boiler Outputs:	(6) N.O.S.P.S.T
Modulating Output Types:	(6) 4-20m A, 0-5V, 0-10V, 1-5V, 2-10V)
Output Relay Ratings:	.1 Amp Inductive (1/8 HP), 6 Amp resistive at 120 VAV 60 Hz, 15A total for all circuits
Connection to SCC4 and another extension:	Two RS485 connections using phone style cable (cable is provided)



Freeway Center - 1 Triangle Lane Blackwood, NJ 08012  
 Tel: (856) 228 8881- Fax: (856) 228 3584  
 E-mail: info@triangletube.com - http://www.triangletube.com

Member of

