The i2800 Series are designed for control of small Air Handling Units, Unit/Roof Top, and other mechanical plant equipment.
Andover Continuum Infinet II
i2800 Series Local Controllers
Features

Choose the i2800 Series controller with the configuration that matches your application:

- The i2800, designed for stand-alone equipment control of Roof Top or Air Handling Units, features eight universal inputs, one Smart Sensor/Room Sensor input, plus eight program-controlled digital outputs.
- The i2804, designed for stand-alone equipment control of Roof Top or Air Handling Units, features eight universal inputs, one Smart Sensor/Room Sensor input, plus four program-controlled digital outputs and four analog outputs for direct control of devices requiring 0-10 volt control signals.

Note: The i2804 is only compatible with Andover Continuum.

Both models feature an additional room sensor input, which supports Andover Continuum Smart Sensor, or any standard room temperature sensor.

The i2800 Series also features Flash memory, increased user memory, and a fast (32-bit) processor for faster scan times, with plenty of memory available for data logging of your critical data.

The i2800 communicates with the entire Andover Continuum Infinet RS-485 field bus (i.e. both Infinet and Infinet II controllers), and is compatible with both the Andover Continuum CyberStation and Infinity SX 8000 front-ends. The i2804 is only compatible with Andover Continuum. Up to 254 Andover Continuum Infinet devices can be networked to any Andover Continuum network controller.
Increased Reliability with Flash Memory
The i2800’s non-volatile Flash memory stores your operating system and application programs, so that in the event of a power loss, your application will be restored when power is returned. In addition, the Flash memory allows for easy upgrades of your operating system via software downloads, eliminating the need to swap out proms. The i2800 Series controllers include an on-board battery to safeguard your runtime data — protecting all point data and log data from being lost if power is removed.

Inputs
The input configuration on the i2800 Series consists of eight full range, 10-bit Universal inputs that accept voltage (0-5VDC), digital (on/off), counter signals (up to 4Hz), temperature signals, or supervised alarm circuits for security applications or broken wire detection. The i2800 Series offers an additional input to support the Andover Continuum Smart Sensor, or any standard room temperature sensor.

Outputs
The i2800 contains eight Form C relay outputs, each rated for 24 VAC/VDC, 3 Amp, while the i2804 contains four Form C relay outputs and four analog outputs (0-10V).

Software Capabilities
The dynamic memory of the i2800 can be allocated for any combination of programs, scheduling, alarming, and data logging using the powerful Andover Continuum Plain English programming language. Our object-oriented Plain English language with intuitive keywords provides an easy method to tailor the controller to meet your exact requirements. Programs are entered into the i2800 using the Andover Continuum CyberStation. Programs are then stored and executed by the i2800 controllers.

Programming multiple i2800 Series controllers is inherently easy with Plain English. A complete copy of one i2800 controller’s programs can be loaded directly into other i2800 controllers without changing any point names or programs.
Smart Sensor Interface
The i2800 provides a built-in connection for Andover Continuum's Smart Sensor. The Smart Sensor provides a 2-character LED display and a 6-button programmable keypad that enables operators and occupants to change setpoints, balance VAV boxes, monitor occupancy status, and turn equipment on and off. An enhanced version of the Smart Sensor is also available with a 4-digit custom LCD that provides the following icons: PM, %, °, Setpoint, Cool, Heat, CFM, Fan, OA, and SP.

Optional Wireless Andover Continuum Infinet
The i2800 Series Infinet controllers can also communicate using a wireless mesh network. Simply plug Andover Continuum Wireless Adapters into the service ports of these controllers with wireless compatible firmware to create a wireless mesh network that sends and receives Andover Continuum Infinet messages.
Andover Continuum Infinet II
i2800 Series Local Controllers
Specifications

i2800 Series Local Controllers

**Electrical**

**Power**
24VAC, 12-24VDC - auto sensing, +10% - -15%, 50/60 Hz

**Power Consumption**
25 VA

**Overload Protection**
Fused with 3 amp fuse. MOV protected

**Software Real-Time Clock**
Synchronized through Infinet by network controller

**Mechanical**

**Operating Environment**
-10°–140°F (-23–60°C), 10–95% RH (non-condensing)

**Size**
9.03˝ H x 6.01˝ W x 2.14˝ D (229 H x 153 W x 54 D) mm

**Weight**
1.34 lbs. (0.61 kg)

**Enclosure Type**
UL Open class, IP 10.

**Flammability rating of UL94-5V**

**Mounting**
Panel mount

**Battery**

**Battery Backup**
Replaceable, non-rechargeable, lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory

**Communications**

**Communications Interface**
Through Infinet RS-485 field bus to network controller

**Communications Speed**
1200 to 19.2K baud

**Bus Length**
4,000 ft. (1,220m) standard for Infinet, I2 Infillink module allows extension to longer distances and is required after every group of 32 units on the network.

**Bus Media**
Infinet: twisted, shielded pair, low capacitance cable

**RS-485 port for implementing Wireless Infinet II connection, including:**
Standard service port, four-position shrouded connector

**Comm. Error Checking**
International Standard CRC 16

**Compatibility**
Andover Continuum CyberStation and Infinity SX 8000 systems

**Inputs/Outputs**

**Inputs**
8 Universal inputs: Voltage (0-5.115 VDC); Temperature -30°F to 230°F (-34°C to 110°C), Digital (on/off), Counter (up to 4Hz at 50% duty cycle, 125 ms min. pulse width). Supervised Alarm (single or double resistor). Current input (0 - 20 mA) using external 250 ohm resistor. 1 Smart Sensor Temperature Input (32°F to 105°F) (0°C to 41°C)

**Input Voltage Range**
0-5.115 volts DC

**Input Impedance**
5.0 mV

**Input Accuracy**
±0.56°C from -23°C to +66°C or ±1°F from -10°F to +150°F

**Digital Outputs**
8 single pole single throw (SPST) Form C relays (4 Form C on i2804) (Any two consecutive Form C outputs can be configured as one Form K Tri-state)

**Output Rating**
Maximum 3A, 24VAC/VDC, ±1500V transients (Tested according to EN61000-4-4)

**Output Accuracy**
0.1 sec. for pulse width modulation
Andover Continuum Infinet II
i2800 Series Local Controllers
Specifications (continued)

i2800 Series Local Controllers

Analog Outputs
4 analog outputs (i2804 only)

Output Rating
For 0-10V: 5mA maximum,
2K ohm minimum impedance,
±1000V transients (Tested according to
EN61000-4-4)

Output Resolution
0.1V for 0-10V

Connections
Power
3-position fixed screw terminal connector

Inputs
12-position fixed screw terminal connector

Outputs
i2800: Two 12-position fixed screw
terminal connectors
i2804: One 12-position fixed screw terminal
contactor and One 8-position fixed screw
terminal connector

Smart Sensor
3-position fixed screw terminal connector

Communications
3-position removable screw
terminal connector

Service Port
4-position shrouded connector

User LEDs/Switches
Status Indicator LEDs
CPU CPU Active
TD Transmit Data
RD Receive Data
Output Output Status (per output)
(Digital only)

Switches
RESET
Input Pull-up Resistor Switch (per input)

General
Memory
128K SRAM, 1MB FLASH

Processor
Motorola 32-bit Coldfire

Agency Listings
UL/CUL 916, FCC CFR 47 Part 15,
ICES-003, EN55022, AS/NZS 3548,
Class A, CE

Options
UL864, Smoke Control System
Equipment, UUKL (i2800-S, i2804-S)

Models
i2800
Infinet II i2800 Local Controller
i2800-S
Infinet II i2800 Local Controller with
Smoke-Control option
i2800-WL
Wireless Infinet II i2800 Local Controller
i2804
Infinet II i2804 Local Controller
i2804-S
Infinet II i2804 Local Controller with
Smoke-Control option
i2804-WL
Wireless Infinet II i2804 Local Controller

All brand names, trademarks and registered trademarks are the property of their respective owners. Information contained within this document is subject to change without notice.

On October 1st, 2009, TAC became the Buildings Business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes.