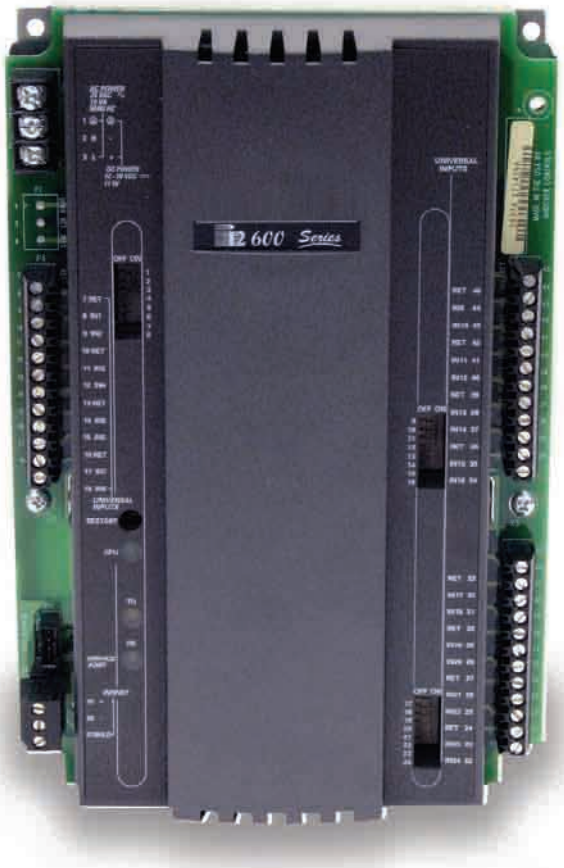
Andover Continuum™ Infinet II

i2800 Series Local

The i2800 Series are designed for control of small Air Handling Units, Unit/Roof Top, and other mechanical plant equipment.



Schneider Electric

Andover Continuum Infinet II i2800 Series Local Controllers Features

PRODUCT AT A GLANCE

- Powerful, Flexible Local Controller for the Most Demanding Applications
- Non-Volatile Flash Memory Provides Utmost Reliability — Stores Both Application Program and Operating System
- Local, Extended Storage of Log Data
- View and Modify Information with Optional Smart Sensor Display
- Local, On-Board Service Port

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.

Andover Continuum Infinet II i2800 Series Local Controllers Features (continued)

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

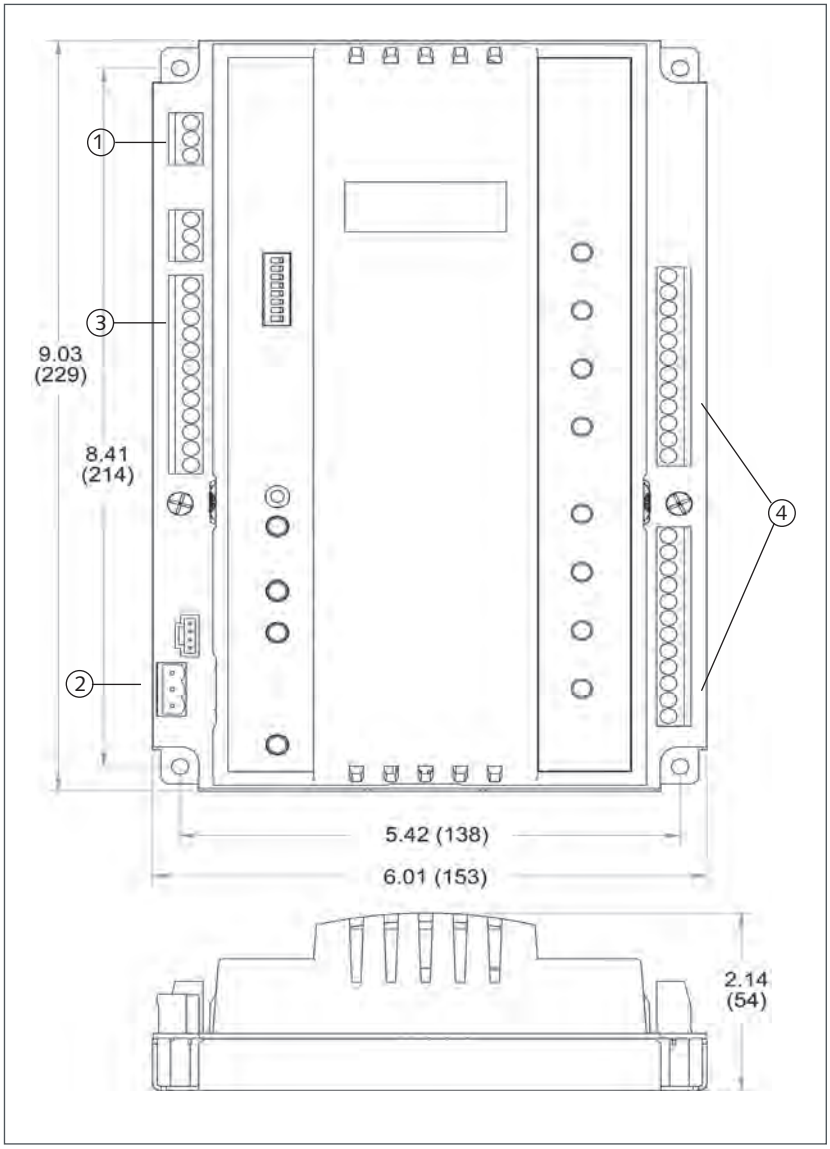
The i2800 contains eight Form C relay outputs, each rated for 24 VAC/VDC, 3 Amp, while the i2804 contains four Form C relay outputs and four analog outputs (0-10V).

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.

Dimensional Drawings



Andover Continuum Infinet II i2800 Series Local Controllers Features (continued)

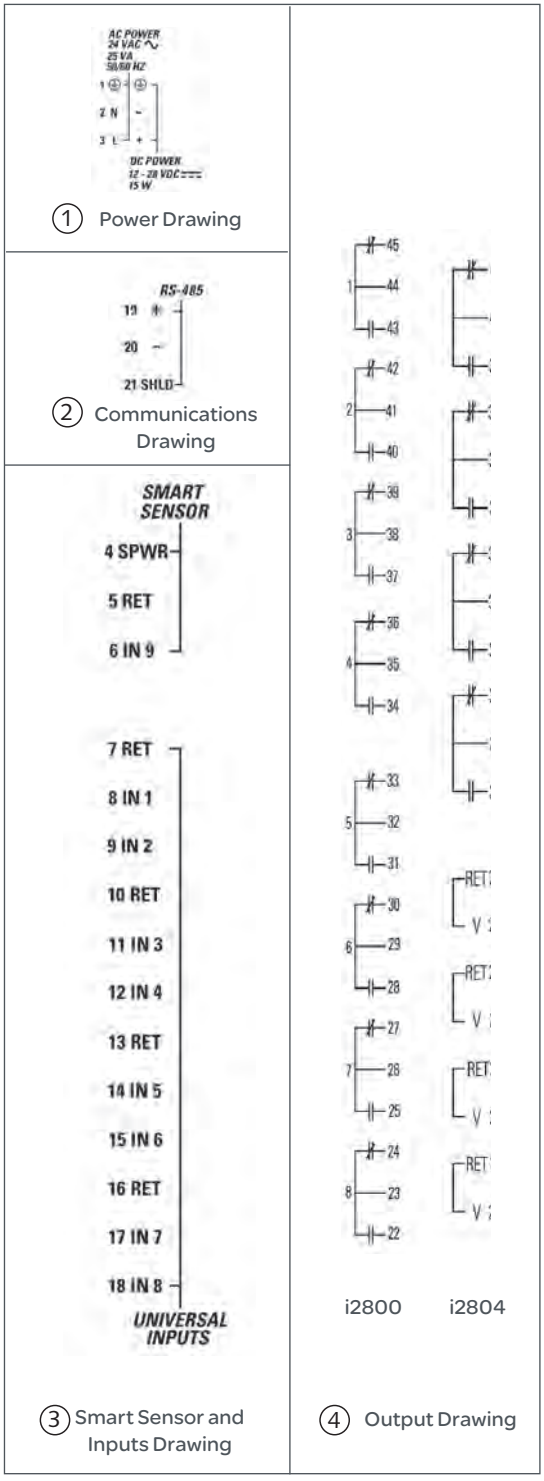
Smart Sensor Interface

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.

Dimensional Drawings



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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 Infilink 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

Note: The i2804 is compatible with Andover Continuum (only).

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

10K ohm to 5.120V or 5M ohm with pull-up resistor disabled

Input Resolution

5.0 mV

Input Accuracy

±15mV (±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 connector 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

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