



Infinet II

i2867 Terminal Controllers

The Infinet II i2867 is a compact terminal controller that provides low-cost DDC control of package units, heat pumps, unit ventilators, and other terminal unit applications. Its versatile mix of I/O — universal inputs, triac outputs, plus an interface to Andover Continuum Smart Sensor room temperature sensor with programmable keypad — allows for flexible control solutions. The i2867 also features two analog outputs to control reheat valves, dampers, lighting ballasts, etc. And because the i2867 is enclosed in a sleek, modular casing, it can be mounted in a small area — perfect for retrofit applications.

- Compact Terminal Controller Provides Low-cost DDC Control of Package Units, Heat Pumps, Unit Ventilators
- Compatible with Both Continuum™ and Infinity Systems
- Universal Inputs with Form A, Form K, and Analog Outputs for Flexible Control Options
- Non-Volatile Flash Memory Provides Utmost Reliability — Stores Both Application Program and Operating System
- Flash Memory Allows Easy On-Line Software Updates
- Modular, Sleek Design Simplifies Installation in Small Areas
- View and Modify Information with Optional Andover Continuum Smart Sensor Display
- Local On-Board Service Port

Similar to all Infinet II controllers, the i2867 features Flash memory, increased user memory, and a fast (32-bit) processor for faster scan times, with plenty of additional memory available for data logging of your critical data.

The i2867 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 Continuum CyberStation and Infinity SX 8000 front-ends. Up to 254 Infinet devices can be networked to any Andover Continuum network controller.

INCREASED RELIABILITY WITH FLASH MEMORY

The i2867'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 i2867 includes 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 i2867 consists of four full range universal inputs that accept voltage (0-5VDC), digital (on/off), counter signals (up to 4Hz), or temperature signals. The i2867 also offers a fifth input to support the Andover Continuum Smart Sensor, or any standard room temperature sensor.

OUTPUTS

The i2867 contains five Form A Triac-based outputs. Each Triac is ground referenced. These outputs can be used separately for on/off or pulsed control of lighting, heat, and fan units or be configured into Form K Tri-state outputs (2-max) for bi-directional control of dampers and valves, with a free Triac output remaining. (Note: Any two consecutive Triac outputs can be configured as a Form K output.) Outputs are rated for AC loads only. The i2867 also offers two (0-10V) analog outputs.



i2867 Terminal Controllers

SOFTWARE CAPABILITIES

The dynamic memory of the i2867 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 i2867 using the Continuum CyberStation, Infinity SX 8000 Workstation, or local user terminal. Programs are then stored in, and executed by, the i2867.

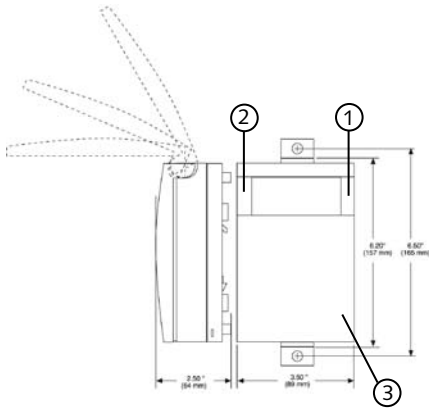
Programming multiple i2867s is inherently easy with Plain English. A complete copy of one i2867's programs can be loaded directly into other i2867s without changing any point names or programs. In addition, channel assignments for the i2867 are similar to other Infinet devices such as the i2865 for easy program conversion.

SMART SENSOR INTERFACE

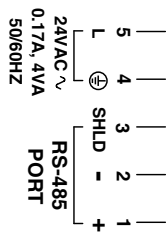
The i2867 provides a built-in connection for the Andover Continuum Smart Sensor. The Smart Sensor provides a 2-character LED display and a 6-button programmable keypad that enables operators and occupants to change setpoints, balance VAV boxes, monitor occupancy status, and turn equipment on and off. 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 INFINET

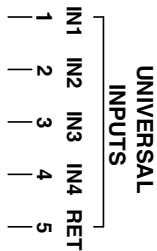
The i2867 Infinet controllers can also communicate using a wireless mesh network. Simply plug Andover Continuum Wireless Adapters into the service ports of these controllers with wireless compatible firmware to create a wireless mesh network that sends and receives Infinet messages.



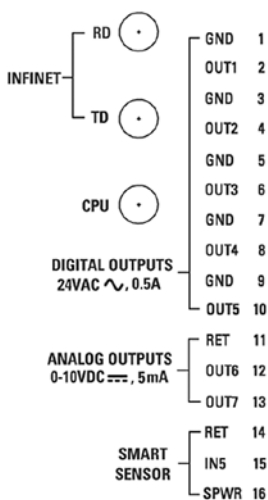
Dimensional Drawing



① Power and Communications Drawing



② Inputs Drawing



③ Outputs/Smart Sensor Drawing

SPECIFICATIONS

i2867 Terminal Controllers

ELECTRICAL

Power

24 VAC, +10% -15%, 50/60 Hz

Power Consumption

4 VA

Overload Protection

Fused with 2 amp fuse. MOV protected

Software Real-Time Clock

Synchronized through Infinet by network controller

MECHANICAL

Operating Environment

32°–120°F (0–49°C), 10–95% RH (non-condensing)

Size

6.20"H x 3.50"W x 2.50"D
(157H x 89W x 64) mm

Weight

0.64 lbs. (0.29 kg)

Enclosure Type

UL Open class, IP 10. Flammability rating of UL94-5V

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

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

Continuum CyberStation and Infinity SX 8000 systems

INPUTS/OUTPUTS

Inputs

4 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). 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 Protection

24 VAC or 24 VDC temporarily on any single channel, ±1000V transients (Tested according to EN61000-4-4)

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)

Outputs

5 single pole single throw (SPST) Form A Triacs (Any two consecutive outputs can be configured as one Tri-State Form K). 2 analog outputs (0-10V)

Output Rating

For SPST: Maximum 0.5A, 24VAC, ±2000V transients (Tested according to EN61000-4-4)

Minimum: 20 mA AC

Each Triac is ground referenced, DC loads not permitted.

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

Output Accuracy

For SPST: 0.1 sec. for pulse width modulation

For 0-10V: 50 mV resolution/100mV accuracy

CONNECTIONS

Power/Communications

5-position removable screw terminal connector

Inputs

5-position removable screw terminal connector

Outputs/Smart Sensor

16-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

Switches

RESET
Input Pull-up Resistor Switch (per input)

SPECIFICATIONS

i2867 Terminal Controllers (continued)

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,
and VCCI Class A, CE

OPTIONS

UL864, Smoke Control System
Equipment, UUKL (i2867-S)

MODELS

i2867

Infinet II i2867 Terminal Controller

i2867-S

Infinet II i2867 Terminal Controller
with Smoke-Control option

i2867-WL

Wireless Infinet II i2867
Terminal Controller

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