PRODUCT DATA SHEET

ClimaVision Smart Node

Flexible terminal box controller for individual zone control



- (2) Relay outputs
- (2) Analog inputs
- (2) Thermistor (temperature) inputs
- (2) Analog outputs
- (1) 3-pin serial communications port
- (1) RS-485 4-pin serial communications port
- (1) LED display with user navigation buttons

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ClimaVision Smart Node

Put the power, flexibility, and speed of IoT in your building automation system with the ClimaVision Smart Node. Gone are the days of pulling thousands of feet of comm wire from field controllers to supervisory devices. Power up a Smart Node, pair with a CCU over Bluetooth, select a pre-written sequence of operation, configure a few parameters and move on to the next one. Enjoy the comfort and energy savings made possible by ClimaVision with less effort than ever.



OVERVIEW

The Smart Node is a revolutionary terminal box controller for individual zone control with flexible software-defined configurations that can control a range of equipment across multiple ClimaVision applications. These include VAV and VVT terminal box control, bypass damper, and economizer control.

Each Smart Node operates off 24V AC or DC and is designed to accept daisy-chain power, making power bus installation simple and fast. This device marries multiple digital and analog inputs and outputs with mesh network communication and Bluetooth commissioning, virtually eliminating the need to install network cabling in your building. The Smart Node also supports wired connection should that be required in outlier cases.

KEY FEATURES

- The Smart Node was designed and built from the studs out to control equipment with zero programming required.
- An onboard display with large user navigation buttons enables field verification and adjusting without external devices such as voltmeters and laptops.
- Automatic updates pushed from the cloud. Pre-written sequences of operation always update for seamless performance benefits.
- Fast, easy installation. Backlit text and light-pipe enabled ports indicate which I/O are enabled.
- Secure wireless mesh network. The Smart Node takes advantage of ClimaVision's secure and encrypted 900 MHz mesh network to communicate data to the Central Control Unit.

ADDITIONAL FEATURES

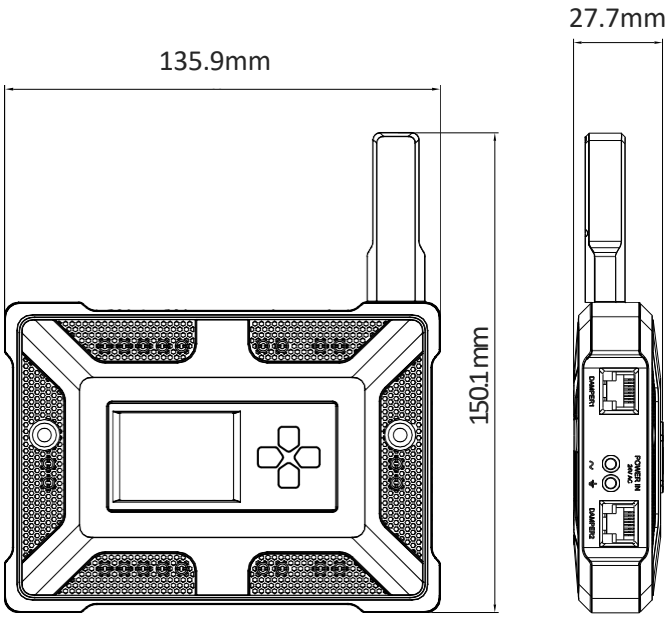
- Robust construction with machined metal studs for mounting
- Commissions in just minutes with Bluetooth pairing

COMPATIBLE APPLICATIONS

- VVT
- VAV
- Bypass Damper
- Economizer

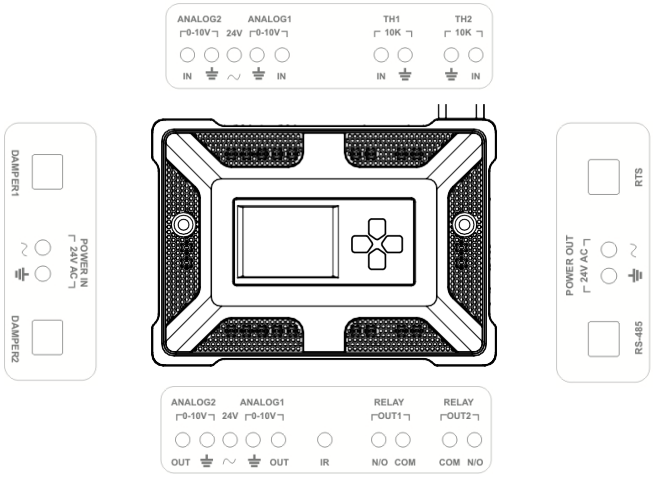
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ClimaVision Smart Node



MECHANICAL

Dimensions	5.35” x 5.91” x 1.1” (135.9mm x 150.1mm x 27.7mm)
Operating Range	Humidity 20-85% non-condensing Temperature 0°F to 122°F (-17°C to 50°C) Plenum-rated
Screen	OLED
Termination	WAGO2061 series poke-in connectors



I/O

Inputs	A. (2) thermistor inputs. 10K Type 2 or 0-50KΩ resistance B. (2) 0-10v analog inputs. 10K impedance
Outputs	C. (2) 0-10v or 4-20ma analog outputs D. (2) relays. Rated for 24V AC/DC, 1A, Resistive load E. (2) RJ-45 ports (no longer used)

COMPLIANCE

Pollution Grade	2
Certification	ROHS, UL 60730-1- Automatic Electrical Controls

COMMUNICATIONS

Bluetooth	BLE 4.1 for commissioning
Mesh	900 Mhz Mesh IEEE 802.15.4-compliant, for communications to CCU
Wired	4-wire interface for RS 485 communication @ 115200 baud and 5V 100mA power source 3-wire sensor bus for daisy chained sensor communication and 3V power

ELECTRICAL

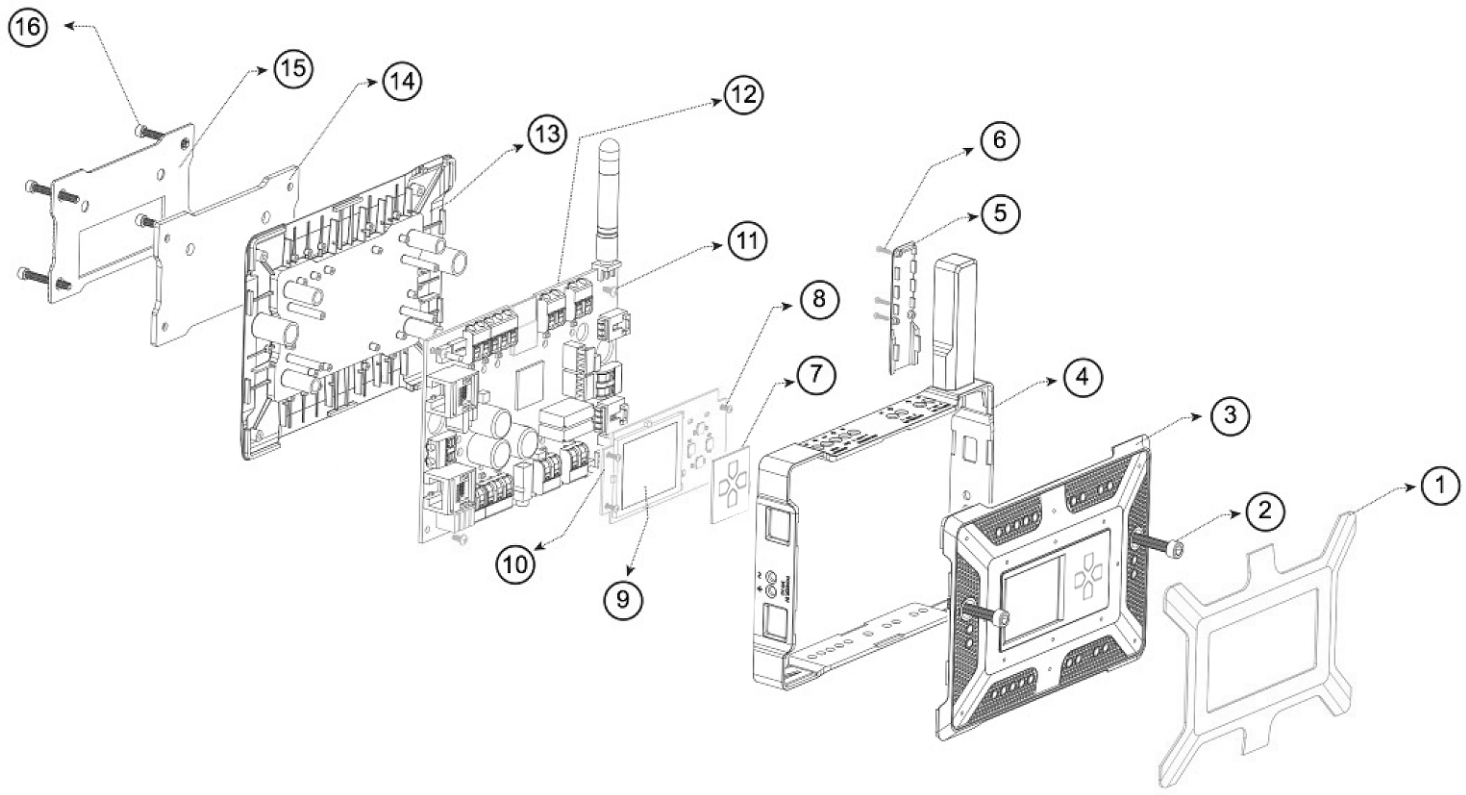
Supply	24V AC/DC input (+/- 15%)
Peak Consumption	5VA (during Smart Damper calibration). Typical <1VA consumption
Protection	IP 20, NEMA Type 1
Rated Impulsive Voltage	330V RMS

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ClimaVision Smart Node

COMPONENTS

1	Front Cover Top	**9**	OLED Display
2	Allen Screw to Mount SN to Damper	**10**	Daughter PCB
3	Front Cover Bottom	**11**	Mother PCB Screw
4	Middle Cover	**12**	Mother PCB
5	Antenna Back Cover	**13**	Bottom Cover
6	Antenna Back Cover Screw	**14**	Metal Plate
7	4 Way Actuation Button	**15**	Silicon Rubber at Back
8	Daughter PCB Screw	**16**	Allen Screw Back to Front Cover



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