ASi Controls

BACnet® Programmable VAV Controller

Features

- Integrated Dual RJ-45 Port Managed Ethernet Switch

- BACnet/IP or ASI Protocol or Standard TCP

- Daisy Chain Connectivity (STP/RSTP Supported)

- Ethernet or RS-485 MS/TP communications

- 8 Universal 0-10Vdc Inputs

- 5 Binary TRIAC outputs

- 2 Analog 0-10Vdc Outputs

- WS-061 Compatibility, RJ-45 Jack

- Optional Onboard Airflow Sensor

The 3-6115-ETH BACnet programmable VAV controller combines the proven functionality of an ASI terminal controller with the full power of object-based programming. The device integrates a 2-Port Managed Ethernet Switch for communication over BACnet/IP, ASI Protocol, or standard TCP/IP. It can provide speeds at 10/100 BASE-T.

The 3-6115-ETH provides the full range of software objects for developing custom control sequences and supports WS-0x1 series wall sensors including the WS-061 digital display model – a powerful package for VAV applications. It has a switching power supply for AC operation and flash memory for program and data storage. Firmware is easily upgradable using ASI Expert.

The controller is easily configured using ASI Expert configuration software that links ready-made objects including scheduling, logic, PID control, alarming, optimum start, trending, run-time accumulation, and electrical demand management. The 3-6115 allows special events, holidays, and schedules to be defined in advance. Configuration data is stored in non-volatile memory that is retained through power system loss.

The 3-6115-ETH controller has two RJ-45 Ethernet ports and one RS-485 port that are used to network multiple controllers via BACnet or legacy ASI protocol and can optionally support simultaneous MS/TP communications and routing. Several LEDs indicate the controller's status, link, and receive and transmit communications.

The ASIC/3 can operate as part of a larger high speed 10/100 BASE-T Ethernet control network that can communicate over BACnet/IP, ASI Protocol, or standard TCP/IP. Thanks to the integrated managed dual ethernet ports, no external Ethernet switch or other hardware is required to complete the network. The controllers can be easily daisy-chained together with standard CAT5/6 cable. The ASIC/3 also features an RS-485 connection supporting BACnet MS/TP at up to 115,200 bps, or ASI legacy protocol at up to 38,400 bps. A full-speed 12 Mbps USB Device connection is also provided for service in the field.

The controller can send notify messages through either the Ethernet or RS-485 ports. Temperatures, setpoints, and other controller data may be easily reported to Niagara, IntelliFront, or other supervisory software.

The five 24 Vac TRIAC outputs are ideal for driving contactors and relays. The analog outputs are used for modulated actuators, electronic pneumatic transducers, variable speed drives and other analog signal devices. The eight universal inputs can count pulses, monitoring contact closures directly, and read 4 to 20 mA, 0 to 5 Vdc or 0 to 10 Vdc input signals.

Specifications

Control Power

Supply Voltage: 24 VAC +/- 15% 50/60 Hz
Power Consumption:16 VA (plus loads)

Binary Outputs (5)

Type: Binary solid-state switch
Voltage rating: 24 VAC, 1 Amp, MOV protected
Maximum combined current not to exceed 3A

Analog Outputs (2)

Rating: 0-10VDC, 20mA at 10VDC
Protection: 10V, 600 W peak

Inputs (8)

Type: Universal Analog/Binary
Range: 0-10 VDC, 12-bit, 0.1% full scale
Temperature Sensor: WS-0x1, WS-061
3k Ohm at 77F (25C)
Type 2 thermistor
Airflow Sensor: 6115-VAV (1 AF), 6115-DD (2 AF)
No Filter Required

BACnet MS/TP Communications

BACnet BTL Certified
Format: RS-485
Baud Rates: 9600, 19200, 38400, 76800
Protection: 100 mA Fused

ASI Communications

Format RS-485 via Wall Sensor or USB port
Baud Rate: 9600, 19200, 38400

Connections

Power and I/O: Screw Terminal
Communications: 3-position screw terminals zone
Sensor: 8-position, modular jack, RJ-45
for use with SCP-XXX sensor cable

Other

USB Power: 500 mA maximum
Indication: 3 LEDs, Power, Communication
Terminal Torque: 45 in-lb./5 Nm
Dimensions: 5.9" x 8.9" x 2.5"
150 mm x 225 mm x 64 mm
Weight: 1.65 lb. (.75kg)
Operating Range: 45C maximum (113F)
10-95% RH non-condensing

How to Order:	Order Number
BACnet Programmable VAV Controller	3-6115VAV-ETH
BACnet Programmable Dual Duct Controller	3-6115DD-ETH
BACnet Programmable Pressure Dependent VAV Controller	3-6115PD-ETH
BACnet Programmable Direct Feedback VAV Controller	3-6115VAVDFA-ETH
BACnet Programmable Pressure Dependent Direct Feedback VAVController	3-6115PDDFA-ETH
BACnet Programmable Dual Duct Direct Feedback VAV Controller	3-6115DDDFA-ETH

Accessories:	Order Number
Wall Temperature Sensor	WS-0X1
Digital Display Wall Sensor	WS-061
Sensor Cable	SCP-0XX

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/3-6115 Users' Manual	6115 Manual

Assembled in USA