

ASIC/1-6100 Features

- Sequences include: Cooling Damper Only
Hot Water or Electric Heat
Intermittent or Constant Fan
- Integrated Damper Actuator
- BACnet MS/TP protocol interface
BTL Listed (B-ASC)
- Also supports ASI Legacy protocol
- Multiple BACnet object types supported: Analog Input, Binary Input, Analog Output, Binary Output, Analog Value, Binary Value
- Up to 48 instances BACnet Custom Analog or Binary Value object type supported per device.
- Send & Receive ASI protocol over MS/TP network using BACnet tunneling.

The ASIC/1-6100 is a pre-programmed communicating digital controller for the control of pressure independent Variable Air Volume (VAV) and Fan-Powered VAV terminal units. The controller includes an on-board airflow sensor and maintains the space temperature by varying the air volume.

This controller and integral damper motor mount directly on the VAV terminal being controlled. The motor attaches to the damper shaft, and the controller is secured with the anti-rotation screw. The controller monitors zone temperature through a WS-0X1 Wall Sensor and calculates the correct air volume to be distributed to the space by comparing the zone temperature with the cooling and heating setpoints. The pressure dependent ASIC/1-6100-PD is suited for individual zone volume and temperature control applications that do not require an airflow sensor.

The controller contains the most frequently used VAV applications and has personalities for cooling only, and cooling with hot water or electric reheat, and constant or intermittent fan..

The ASIC/1-6100 controller can communicate as a native BACnet device. ASI Analog Inputs are scaled based on the Input Convert Type and Units field to deliver the BACnet Present Value and Units properties. Analog Inputs may be overridden by setting the OutOfService property and writing to the Present Value. ASI Normally Open, Normally Closed, and Multiplexed Inputs are reported as BACnet Binary Inputs

The Analog Output is scaled in percent of full scale, and may be overridden by writing to the BACnet Present Value.

ASI Triac Outputs are reported as BACnet Binary outputs and may be overridden by writing to the BACnet Present Value. Read/write BACnet Analog Values and Binary Values are based on the configuration of the BACnet Custom Tables. Up to 48 Custom Analog or Binary Values may be configured for monitoring and changing Setpoints, Status, and other parameters in the controller. In addition some Standard Analog and Binary Values are preconfigured.



The ASIC/1-6100 can communicate concurrently on the BACnet MS/TP bus and through the Wall Sensor with ASI protocol.

The ASIC/1-6100 controller can also communicate on a Legacy ASI Network using ASI Protocol and is a drop-in replacement for an ASIC/1-6000 controller.

Specifications

Control Power

Supply Voltage: 24 Vac +/- 15%, 50/60 Hz
 Power Consumption: 12 VA (plus loads)

Binary Outputs 5

Type: 5 Binary solid state switch
 Voltage rating: 24 Vac, 1 Amp, MOV protected
 Maximum combined current not to exceed 3A.

Damper Motor

Type: Brushless LMB24-3-T ASI
 Motor: 45 in-lb (5 N-m): 95 s
 Power: 24 Vac, 2 VA

Analog Outputs 1

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

Inputs 6

Type: Universal Analog/Binary
 Range: 0 to 5 Vdc, 12 bit, 0.1% full scale
 Temperature Sensor: WS-0X1, WS-051
 3 kohm at 77 °F (25 °C) Type 2 thermistor.
 Air Flow Sensor: 1, 6100, 0, 6100-PD
 AV-003 Pressure Sensor.
 No Filter Required

Control Resolution: 25 FPM at K-factor = 2338.

Range: 0 to 3300 FPM

Maximum Error for all reasons: +/- 5% Full Scale

BACnet MS/TP Communications

BACnet is a registered Trademark of ASHRAE Inc.
 BTL Listed (B-ASC)

Format: RS-485

Baud Rate: 9600, 19,200, 38,400 or 76,800 baud
 Optional 120 ohm termination

Protection: 100 mA Polyswitch fuse

ASI Communications

Format: RS-485

Baud Rate: Up to 38,400 baud

Connections

Power and I/O: Screw terminal

Communications: 3-position screw terminals

Zone Sensor: 8-position, modular jack, RJ-45
 for use with ASI cable SCP-0XX

Other

Indication: 3 LEDs, Power, Communication
 Dimensions: 5.9" x 8.9" x 2.5"

150 mm x 225 mm x 64 mm

Housing: NEMA-1, UL94-5V, FR/ABS

Weight: 1.66 lbm (0.75 kg)

Operating: 45 °C maximum (+113 °F)

10 to 95% RH non-condensing

FCC/ CE Requirements

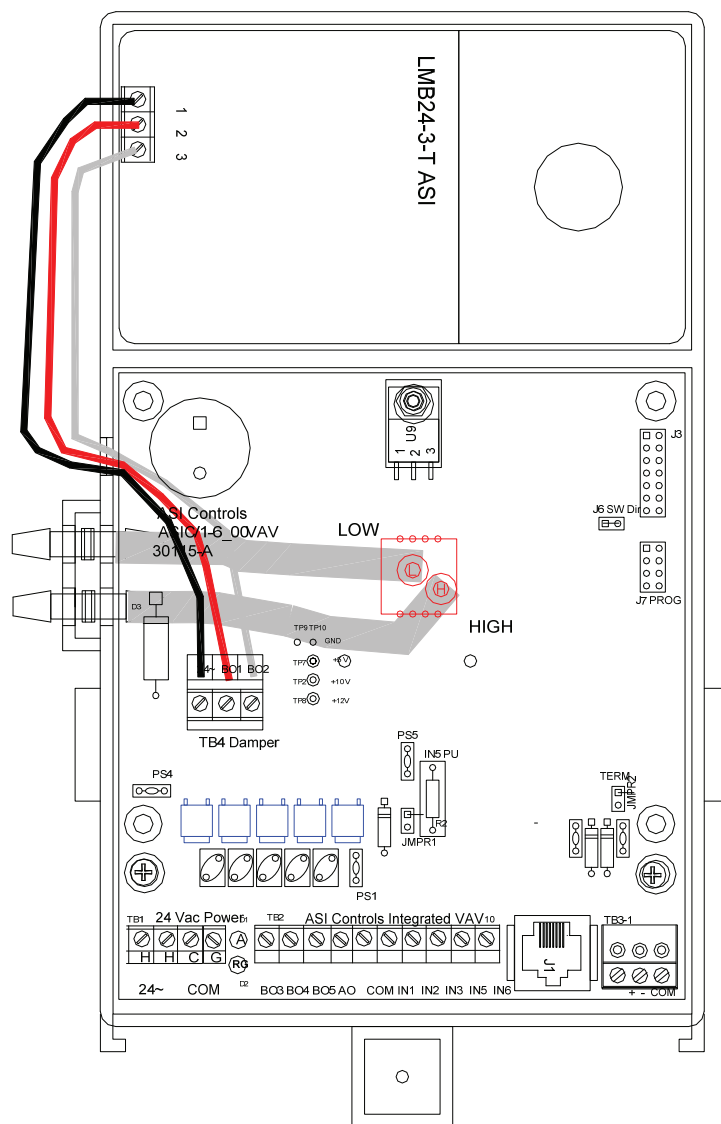
Meets CE Requirements EN 61326 Class A,

EN 61000-3-2 Class A and EN 61000-3-3

Complies with FCC Part 15 (CISPR 22) Class A



Assembled in USA



| How to Order: | Order Number |
|--------------------------------------|----------------|
| VAV Controller with Actuator | ASIC/1-6100 |
| Pressure Dependent VAV with Actuator | ASIC/1-6100-PD |

| 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 |

UL Listing

UL-916 Open Energy Management Equipment
 File E123287 (PAXZ) Class 2 Device
 Canada: C22.2 No. 205-M1983

