



## Single Duct, Dual Duct, or Volume Tracking VAV Controller

### ASIC/1-8800 Features

- One or Two Airflow Sensors
- Compatible with WS-051 Digital Wall Sensor
- Sequences include:  
Cooling Damper Only  
Hot Water or Electric Heat  
Intermittent or Constant Fan  
Dual Duct  
Volume Tracking
- Features include:  
Auto-Changeover  
Lights  
Variable User Adjust  
After-hours Override  
Trending
- Up to 2 calibrated on-board airflow sensors
- Compatible with ASI WebLink & ASI Data Server Products
- Flash programmable firmware

The ASIC/1-8800 is a pre-programmed communicating digital controller for the control of pressure independent Variable Air Volume (VAV), Fan-Powered VAV, Dual Duct, and Volume Tracking terminal units. The controller maintains the space temperature by varying the air volume which is monitored by one or two on-board airflow sensors. 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.

This controller mounts directly on the VAV terminal being controlled. The ASIC/1-8800-SS contains the most frequently used single duct VAV applications and has personalities for cooling only, and cooling with hot water or electric reheat, and constant or intermittent fan. The ASIC/1-8800-DD dual duct controller is for pressure independent dual duct VAV, and for fan powered terminals requiring auxiliary airflow monitoring. The ASIC/1-8800-DD includes all features of the ASIC/1-8800-SS, plus a second calibrated airflow sensor. Exhaust volume tracking personalities allow maintenance of zones with positive or negative pressurization. The ASIC/1-8800-NN has no airflow sensor and can be used in pressure dependent or simple fan coil applications.

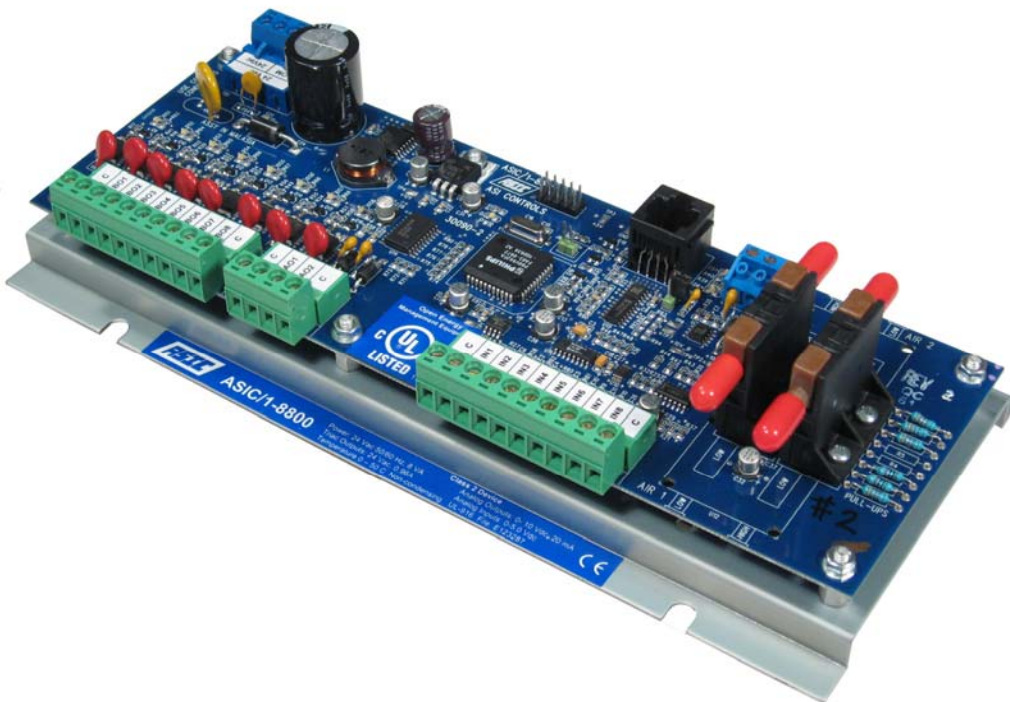
To be fully operational, the operator needs to enter a unique device address, select the appropriate personality for the application, and verify or modify temperature setpoints, duct area, airflow K-factors and minimum and maximum airflow setpoints.

The ASIC/1-8800 may be used in both new construction and retrofit applications. The pre-configured controller allows newly installed zones to be started up quickly and efficiently. Pre-tuned PI algorithms mean that controllers can accurately maintain space temperature.

The ASIC/1-8800 includes after-hours override, user temperature adjustment, and lights control features. Afterhours usage time is automatically stored at each unit for retrieval by the building operator. Time-based features such as scheduled changes in setpoints and lights control may be used when the

controller is connected in a network and can be synchronized by broadcast time message.

The ASIC/1-8800 can operate stand alone or as part of a larger communicating control network with other ASI controllers. Communication at speeds up to 19,200 baud means rapid access to information. This enables integrated control of the complete mechanical system to ensure optimum building performance. Temperatures, airflow, setpoints, and other controller information may be easily reported to ASI WebLink, or to any Windows based software that is a client for OLE for Process Control (OPC).





# ASI Controls

## ASIC/1-8800

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#### Specifications

##### Control Power

Supply Voltage: 24 Vac +/- 15%, 50/60 Hz

Power Consumption: 8 VA (plus loads)

##### Binary Outputs 8

Type: 8 Binary triac switch to common

Voltage rating: 24 Vac, 0.96 Amp, MOV protected

##### Analog Outputs 2

Voltage rating: 0-9.4 Vdc, 20 mA; 10 V, 14 mA,

Accuracy: 2%

##### Inputs 8

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) thermistor.

Air Flow Sensor: AWM 3300V  
0, 8800-NN; 1, 8800-SS; 2, 8800-DD  
Requires filter AF-001 on each sensor.

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

Range: 0 to 3300 FPM

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

##### Communications

Format: RS-485 1/2 duplex

Protection: 100 mA polyswitch

500 mW-s TVS

Baud Rate: 1200 to 19,200

##### Connections

Power and I/O: 2-part screw terminal

Communications: 3-position screw terminals

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

Inputs: 2-part screw terminal

##### Other

Indication: LEDs, 1 Power, 2 Rx/Tx, 8 Output

Dimensions: 4.25" x 9.7" x 2.0"

(108mm x 246 mm x 51 mm)

Steel Base: 4.25" x 9.7" x 0.40" (WxLxH)

114 mm x 246 mm x 18 mm

with mounting holes on center

6.7" x 4.0" (170 mm x 100 mm )

Weight: 1.0 lbm (0.47 kg)

##### Environmental

Operating: -20 to 50 °C (-4 to +122 °F)

10 to 95% RH non-condensing

Storage: -37 to 80 °C (-35 to +180 °F)

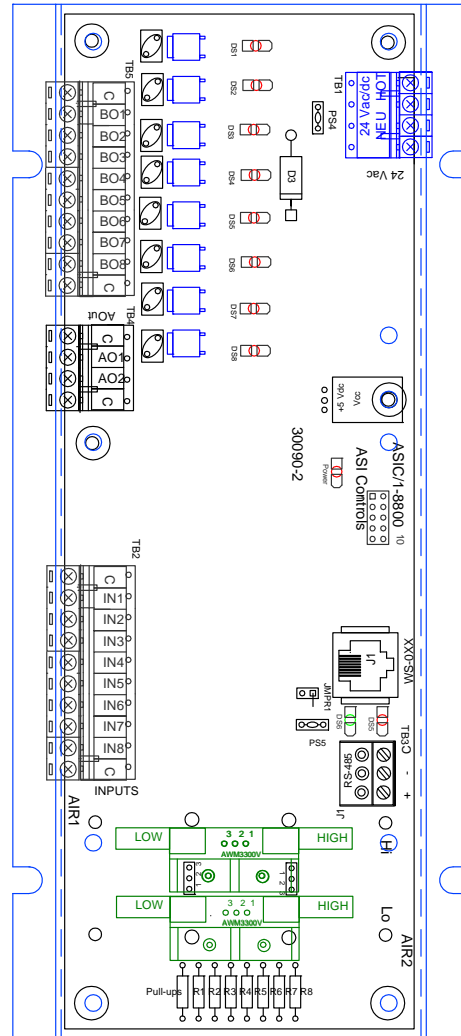
5 to 95% RH non-condensing

##### UL Listing

UL-916 Open Energy Management Equipment  
C22.2 No. 205-M1983 Canada Signal Equipment  
File E123287 (PAZX, PAZX7) Class 2 Device



Meets CE Requirements, per EN61326-1  
FCC Part B Class A (CISPR11)



How to Order:	Order Number
Dual Duct VAV Controller	ASIC/1-8800-DD
Single Duct VAV Controller	ASIC/1-8800-SS
VAV Controller (No Airflow)	ASIC/1-8800-NN
Accessories:	Order Number
Airflow Filter	AF-001
Airflow Tubing Kit	AFK-10
Wall Temperature Sensor	WS-0X1
Digital Display Wall Sensor	WS-051
Sensor Cable	SCP-0XX

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/1-8800 Users' Manual	8800 Manual