

ASIC/1-8100 Features

- Sequences include:
1 & 2 Stage Heat Pumps
Up to 4 Stage Air Conditioners
- 8 Form C (NO,NC) relay outputs with isolated return.
- 2 Analog Outputs 0-10 Vdc
- 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/1-8100 is a pre-programmed digital controller for use in the control of Packaged Air Conditioner units for both new construction and retrofit applications. This controller maintains the space temperature by turning on and off stages of heating or cooling. The controller has personalities for one and two stage heat pumps and up to four stage air conditioning units.

The controller monitors zone temperature through the WS-0x1 Wall Sensor. It calculates the cooling or heating requirement for the space based upon comparing this temperature with the cooling and heating setpoints. The WS-061 Digital Display Wall Sensor can be used with this controller. Control of the indoor fan is included. It also has optional auxiliary cooling and auxiliary electric or gas heat. The optional modulating economizer can be based on discharge air or mixed air temperature. The optional changeover analog output can be used for hydronic heating or cooling.

The ASIC/1-8100 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 Relay 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/1-8100 can communicate concurrently on the BACnet

MS/TP bus and through the Wall Sensor with ASI protocol.

The ASIC/1-8100 controller can also communicate on a Legacy ASI Network using ASI Protocol and is a drop-in replacement for an ASIC/1-8655 controller.



Specifications

Control Power

Supply Voltage: 24 Vac/Vdc +/- 15%, 50/60 Hz,
 Power Consumption: 17 VA (plus loads).
 Protection: 1.1A Polyswitch, MOV

Outputs 10

Binary Output: 8 Form C Relays, NO/NC
 24 Vac, 1 A 2 groups of 4 outputs
 with common return
 Analog Output: 2, 0-10 Vdc, 20 mA at 10 Vdc

Inputs 8

Type: Universal Analog/Binary
 Range: 0 to 5 Vdc
 Resolution: 12 bit, 0.1% full scale
 Accuracy: 1 %
 Temperature Sensor: WS-0X1
 3 kohm at 77 °F (25 °C) thermistor

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: 2 part screw terminals
 Communications: 3 Position screw terminals
 Zone Sensor: 8 position, modular jack,
 for use with ASI cable, SCP-0XX

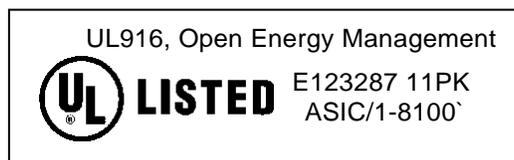
Other

Indication: LEDs, 1 Power,
 8 Output, 2 RS-485
 Dimensions: 3.25" x 9.50" x 1.50"
 83 mm x 241 mm x 38 mm
 Steel Base: 4.5" x 9.7" x 0.70" (WxLxH)
 114 mm x 246 mm x 18 mm
 with mounting holes on center
 6.7" x 3.95" (170 mm x 100 mm)
 Weight with base: 1.34 lb (0.61 kg)

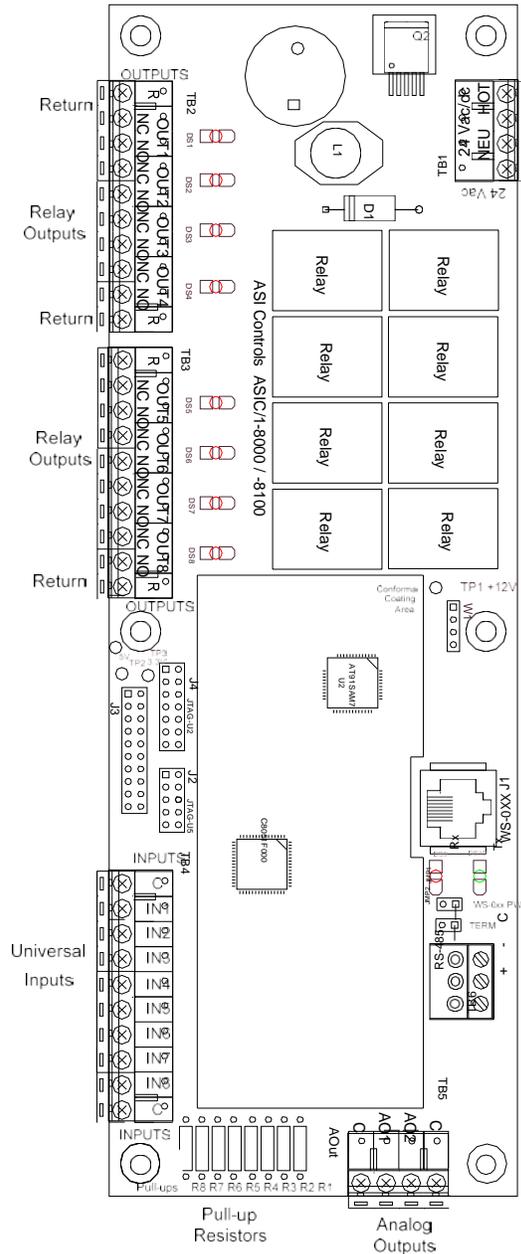
Environmental

Operating: -22 to +122 °F (-30 to 50 °C)
 10 to 95% rh non-condensing
 Storage: -40 to +167 °F (-40 to 75 °C)
 5 to 95% rh non-condensing

UL Listing & CE



Rated as a Class 2 Device, Pilot Duty
 Meets CE requirements.



How to Order:	Order Number
Packaged Unit Controller	ASIC/1-8100

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

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert