ASIC/3-9520-DD

Programmable Dual Duct VAV Controller

ASIC/3-9520DD Features

- 32-bit ARM7 processor
- 100Mb Ethernet and Optional wireless
- BACnet communication
- System Bus for ASI or BACnet MSTP communication
- Local Bus for ASI or Modbus Master RTU
- Compatible with ASI WebLink & ASI OPC Server products
- USB Device Service Port
- USB Host
- Two-part screw terminal input, output and power connections
- 5 Universal Inputs
- 2 Airflow Sensors
- 8 Binary Relay Outputs
- 4 Analog Outputs
- Supports WS-061 wall sensor

The ASIC/3 Programmable System Controller represents a new generation of communicating distributed direct digital control for unitary equipment and building systems. The ASIC/3 controller is designed to be hardware compatible with the ASIC/2 Programmable controllers and offers expanded communication capability including USB, BACnet, Ethernet and Wireless.

The ASIC/3-9520DD provides the full range of ASIC/3 software objects for developing custom control sequences, onboard dual airflow sensors, and support for the WS-061 wall sensor – all of which make this a powerful package for dual duct VAV applications. It has a switching power supply for AC operation and flash memory for program and data storage.

The controller is easily configured using ASI Visual 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 ASIC/3 has an on-board battery-backed calendar clock and allows special events, holidays, and schedules to be defined in advance. Configuration data is stored in non-volatile memory that is retained through power loss. The ASIC/3 controller has separate RS-485 system and local buses. The system bus is used to network multiple ASIC/3 and ASIC/2 controllers, or optionally the system bus can support BACnet MS/TP. The local bus can poll ASIC/1 terminal controllers and make control decisions based on the data received. No central system is needed to supervise the controller. The local bus can also support Modbus Master RTU. Red and green LEDs indicate the controller's receive and transmit communications.

The ASIC/3 can operate as part of a larger communicating control network. The ASIC/3 offers Ethernet communication and alarm notification via wired 10/100 Mbps connection or optional WiFi module. The ASIC/3 also features a full-speed 12 Mbps USB Device connection for service in the field. The RS- 485 connections support baud rates up to 57,600 bps, and standard BACnet MSTP baud rates up to 76,800 bps are also supported.

The controller can send notify messages on the system bus to a computer running ASI Weblink software. Temperatures, setpoints, and other controller data may be easily reported to ASI WebLink or other OPC client software.

The eight 24 Vac relay outputs are ideal for driving contactors and starters. The four analog outputs are used for modulated actuators, electronic-pneumatic transducers, variable speed drives and other analog signal devices. The five universal inputs may be used for counting pulses, for reading thermistors and contact closures directly, and for reading 4 to 20 mA, 0 to 5 Vdc or 1 to 5 Vdc input signals.

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Specifications

Control Power

Supply Voltage: 24 Vac +/- 15%, 50/60 Hz
Power Consumption: 27 VA (plus loads)
Protection: PS1, Polyswitch, MOV
Connection 2-part screw terminal
Indication Red LED

Binary Outputs 8

Type: Form "A" Relay SPST N.O.Dry Contacts
Voltage Rating: Class 2, 24 Vac or 24 Vdc
Current Rating: 1 A General Use
Connection 2-part screw terminal
Indication Red LED, Binary Outputs

Analog Outputs 4

Type: Analog 0-10Vdc, 20 mA
Resolution: 1% full scale
Protection: TVS, 10 V, 600W peak
Connection 2-part screw terminal

Inputs 7

Type: Universal Analog/Binary
Range: 0 to 5 Vdc,12-bit, 0.1% full scale
Connection 2-part screw terminal
Airflow Sensors: 2

RS-485 Communications (2)

Format: RS-485, optional 120 ohm Termination
Baud Rate: Up to 57,600 bps
Protection: 500 mW-s TVS with 100 mA Polyswitch
Maximum Length: 4000 ft (1.2 km) RS-485
Connection: 3 Position, screw terminals
Indication: Red LED Receive, Green LED Transmit

System Bus Communication

Address Range: 1 to 65535
Maximum Size: Up to 255 devices with repeaters
Alternate Protocol: BACnet MS/TP up to 76,800 bps

Local Bus Communication

ASI Address Range: 1 to 65535 except for group and global addresses
Maximum Size: Up to 64 devices with repeaters
Alternate Protocol: Modbus Master RTU

WS-061 Wall Sensor Support

Connection: Via RJ45 jack & inputs 1-3
Software: SYS object supports WS display

Ethernet Networking

Communication: UDP/IP or TCP/IP; auto-sense 10 Mbit/s or 100 Mbit/s
Requires 100 MHz Ferrite Core on Ethernet cable.
Optional Wireless: XBee Module Ready

Other

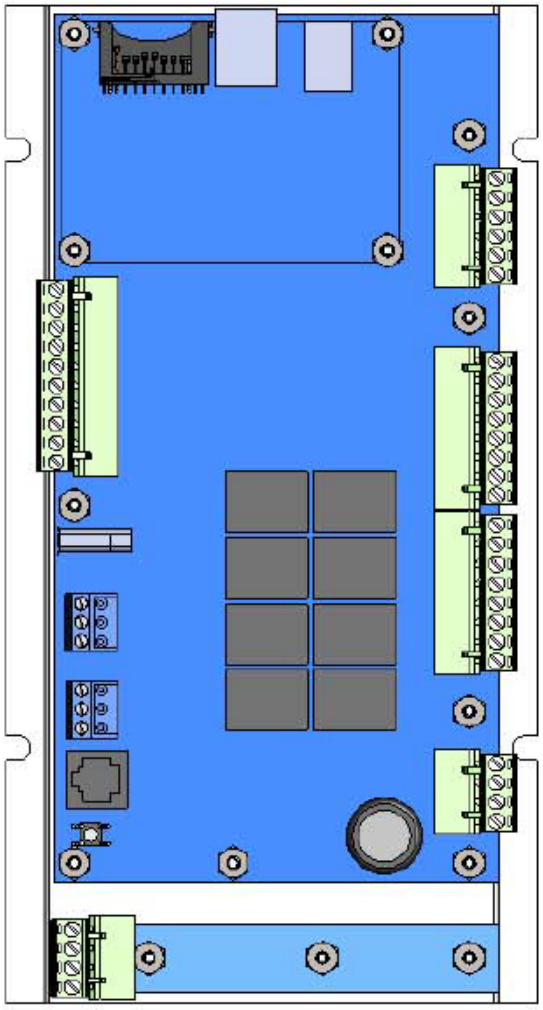
Indication: LEDs,1 Power, 2 Rx/Tx, 8 Output
Dimensions: 5.5" x 10.36" x2.0" (140mm x 263 mm x 51 mm)
Weight: 1.8 lbm (0.8 kg)

Environmental

Operating: 45 ºC max (+113 ºF) 10 to 95% RH non-condensing
Storage: -37 to 80 ºC (-35 to +180 ºF) 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
Programmable Unitary Controller	ASIC/3-9520
Programmable Unitary Controller-Dual Duct	ASIC/3-9520-DD

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/3-9520 Users' Guide	9520 User