

ASIC/3 Features

32-bit ARM9 processor
 100Mb Ethernet and optional wireless
 BACnet communication
 System Bus for ASI or BACnet MSTP communication
 2 Local Buses for ASI and/or Modbus Master RTU
 Compatible with ASI WebLink & ASI Data Server products
 USB Device Service Port
 Isolated switching power supply for AC or DC operation
 10 Year hardware clock
 Two-part screw terminal input, output and power connections
 16 Universal Inputs
 16 Binary Relay Outputs
 8 Analog Outputs
 NEMA-1 Industrial Control Panel
 Power Supply

ASI Controls ENC-9540 control panel is a complete package designed for energy management and control of mechanical systems. An ASIC/3-9540 configurable controller is mounted inside the panel.

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 provides energy management and control of a wide range of building systems including air handlers, chillers, cooling towers, boilers, pumps, lighting, etc. It has an isolated switching power supply for AC or DC 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 three 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. Two local buses can poll ASIC/1 terminal controllers and make control decisions based on the data received. No central system is needed to supervise the controller. Alternately either local bus can 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 sixteen 24 Vac relay outputs are ideal for driving contactors and starters. The eight analog outputs are used for modulated actuators, electronic-pneumatic transducers, variable speed drives and other analog signal devices. The 16 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.



Features

Analog Inputs	Binary Inputs
Maintained Binary Outputs	Pulsed Outputs
Analog Outputs	
Scheduled Start/Stop	Afterhour Override
Calendar Events	Special Day Schedules
Multiple Control States	Multiple PID Loop
Counters and Timers	Optional Demand Limit
Conditional Logic	
Notify Alarm Configuration	Value Trending
Ethernet Communications	Optional Wireless
Remote Point Broadcast	Message Pass-thru
Local Bus Polling	Local Bus Broadcast
Hardware Clock	Brownout Protection
Optional Modbus Master RTU	
Optional BACnet MS/TP	

Specifications

Power Supply (Isolated)

Supply Voltage:	24 Vac +/- 15%, 50/60 Hz or +/- 24 to 48 Vdc
Power Consumption:	27 VA (plus loads)
Protection:	PS8, Polyswitch, MOV
Connection	2-part screw terminal
Indication	Red LED

Binary Outputs 16

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 8

Type:	Analog 0-10Vdc
Resolution:	0.4% full scale
Current Rating:	20 mA
Protection:	TVS, 10 V, 600W peak
Connection	2-part screw terminal

Aux Power

Aux Power:	5 V, 100 mA max 12V, 100 mA max
Connection	fixed screw terminal

Inputs 16

Type:	Universal Analog/Binary
Range:	0 to 5 Vdc
Accuracy:	0.1% full scale
Connection	2-part screw terminal

UL Listing

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



RS-485 Communications (3)

Format:	RS-485 with 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 except for group and global addresses
Maximum Size:	Up to 255 devices with repeaters
Alternate Protocol:	BACnet MS/TP 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

Ethernet Networking

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

Internal Power Supply

Supply Voltage:	120 Vac, 50/60 Hz
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Panel

Panel:	NEMA Type 1 Industrial Control Panel
Dimensions:	20" x 18" x 6"
Weight:	approx. 22 lb (10 kg)
Panel UL Listed:	E182943

Environmental

Operating:	-20 to 45 °C (-4 to 113 °F) 10 to 95% RH non-condensing
Storage:	-37 to 80 °C (-35 to +180 °F) 5 to 95% RH non-condensing

How to Order:	Order Number
Control Panel with Controller	ENC-9540

Accessories:	Order Number
Four Input Multiplex Kit	QUADMUX

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/3 Object Definitions	ASIC3 OBJ DEF
ASIC/3 Installation Guide	ASIC3 Manual

CE

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

