



ASI Controls

Configurable Unitary Controller

ASIC/2-8040 Features

- 8 Universal inputs.
- 4 Analog outputs.
- 3 Binary relay outputs.
- 5 Binary triac outputs which switch 24 Vac to common.
- 10 year hardware clock .
- System bus for communication access
- Local bus for supervision of terminal controllers
- Direct RS-232 communication user access.
- Compatible with ASI WebLink & ASI Data Server products

The ASIC/2-8040 is a configurable unitary controller designed for energy management and control systems for a wide range of building systems including air handlers, chillers, cooling towers, pumps, lighting, etc. Applications range from control of small air handling units and roof top air conditioners in networked systems, to stand alone control of small buildings, such as branch banks, retail stores, and utility company sites.

The controller is easily configured using Windows™ based ASI Visual Expert configuration software that links ready-made objects for scheduling, PID control, alarming, optimum start, trending, run-time accumulation, event logging and electrical demand management. The ASIC/2-8040 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. Comprehensive product documentation is available on-line while using ASI Expert software.

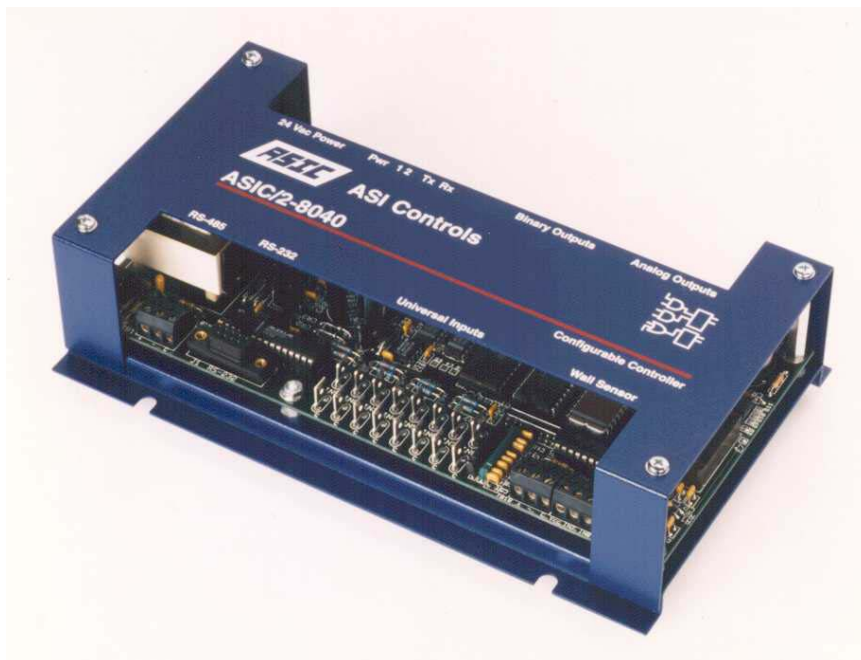
In stand-alone applications a modem may be connected to allow dial-in from a remote location to review conditions and/or to modify schedules or setpoints. Under selected alarm conditions the controller can dial-out and send notify messages to a pager, printer, or computer running ASI Monitor software. Similarly, an ASI EtherLink can be attached to receive and send information via Ethernet TCP/IP network.

The controller has separate RS-485 system and local buses. The system bus is used to network multiple ASIC/2 controllers. The controllers may be polled or be configured for peer-to-peer communication using token passing. Red and green LEDs indicate the controller system bus communications. On a separate local bus the ASIC/2-8040 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 ASIC/2-8040 can operate 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, setpoints, and other controller information may be easily reported to ASI WebLink, or any Windows based software that is a client for OLE for Process Control (OPC) or Dynamic Data Exchange (DDE).

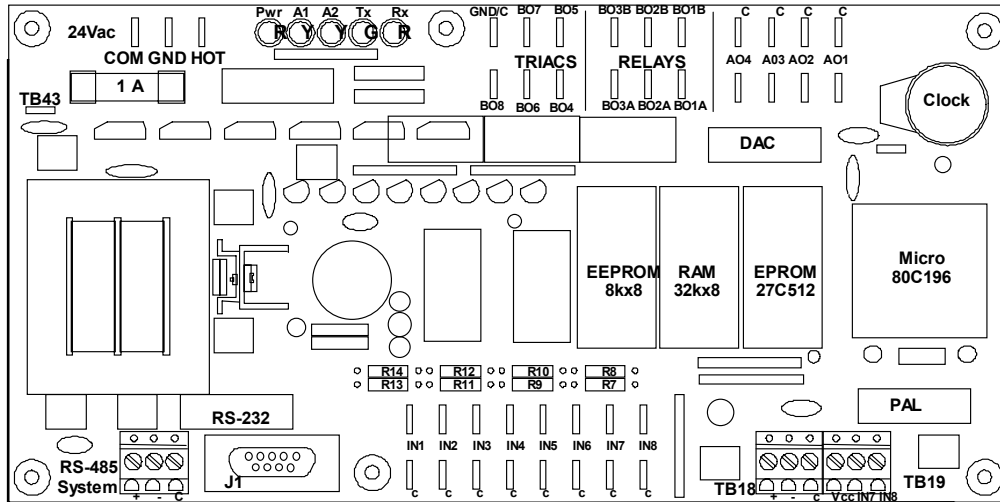
The five triacs provide quiet, solid-state control of modulating devices such as damper and valve motors and thermal devices. The three 24 V relays are ideal for driving contactors and starters. Two yellow LEDs may be configured to indicate specific alarm or other conditions. The four analog outputs are used for modulated actuators, electro-pneumatic transducers, variable speed drives and other analog signal devices. The 8 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: 12 VA (plus loads)
 Protection: 1 A Fuse

Binary Outputs 8

Type: 3 Form "A" Relay SPST N.O. Dry Contacts
 Voltage rating: 24 Vac or Vdc, 2 A
 Type: 5 Binary solid state triac switch
 Voltage rating: 24 Vac, 1 Amp
 Optional Triac/Relay Board or Varistor Kit.

Analog Outputs 4

Type: 4 Analog 0-10Vdc
 Resolution: 0.4% full scale
 Current Rating: 5.0mA at 10Vdc
 Optional Transient Voltage Suppressor Kit.

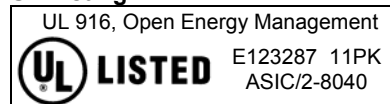
Inputs 8

Type: Universal Analog/Binary
 Range: 0 to 5 Vdc, 0.1% full scale

Communications

Format: RS-485 1/2 duplex
 RS-232 DB-9 Connector
 Baud Rate: Up to 19200 baud
 Protection: 1/8 A pico fuse
 Repeater: ASI Converter/Repeater every 32 devices
 Maximum Length: 4000 ft (1.2 km) RS-485

UL Listing



Rated as a Class 2 device, Pilot Duty
 Includes terminal connector kit with wiring instructions. Use provided connectors.
 Meets CE requirements.



Connections

Power, Input & Output: Male spades (0.25")
 Communications: two part, 3 Position, screw terminals

Other

Microprocessor: Intel 80C196 microcontroller
 Memory: Firmware, 512 kbits EPROM, Volatile 32kbytes RAM
 Non-volatile, 8 kbytes EEPROM
 Indication: 1 Red LED, Power, 2 Amber programmable
 1 Red LED Receive, 1 Green LED Transmit

Overall Dimensions: 5.50" x 9.20" x 2.25" (WxLxH)
 140 mm x 234 mm x 57 mm
 with mounting holes on center
 6.20" x 5.20" (157 mm x 132 mm)

Weight: 2.4 lb (1.1 kg)

Environmental

Operating: 0 to 50 °C (32 to +122 °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
Configurable Controller with cover	ASIC/2-8040

Accessories:	Order Number
Three Input Multiplex Kit	MUX-124
Triac/Relay Board	TRB-5AC
Varistor Kit, 47 V	MOV-47
Transient Voltage Suppressor Kit, 10 Vdc	TVS-10

Software and Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/2-8040 Object Definitions	8040 OBJDEF
ASIC/2-8040 Users' Manual	8040 Manual