



ASI Controls

Configurable System Controller

ASIC/2-7040 Features

- 16 Universal Inputs
- 12 Binary relay outputs
- 8 analog outputs.
- 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/2-7040 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 autonomous control of retail stores, branch banks, and telephone company buildings to networked control of very large buildings.

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/2-7040 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. On a separate local bus the ASIC/2-7040 can poll ASIC/1 terminal controllers and make control decisions based on the data received. No central system is needed to supervise the controller. Red and green LEDs indicate the controller receive and transmit communications.

The ASIC/2-7040 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 twelve 24 Vac relay outputs are ideal for driving contactors and starters. Four yellow LEDs may be configured to indicate specific alarm or other conditions. 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.





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Features

Analog Input Monitoring	Binary Input Monitoring
Maintained Outputs	Pulsed Outputs
Tristate 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	Display and Keypad
Alarm Configuration	Value Trending
Polling Communications	Optional Token Passing
Local Bus Polling	Local Bus Broadcast
Hardware Clock	Brownout Protection

Specifications

Control Power

Supply Voltage:	24 Vac +/- 15%, 50/60 Hz
Power Consumption:	24 VA (plus loads)
Protection:	1 A Fuse

Binary Outputs 12

Type:	Form "A" Relay SPST N.O. Dry Contacts
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Voltage Rating:	24 Vac or 24 Vdc, 2 A
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Analog Outputs 8

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

Inputs 16

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

Communications

Format:	RS-485 1/2 duplex RS-232 DB-9 Connector
Baud Rate:	1200, 2400, 4800, 9600, 19200
Protection:	1/8 A pico fuse,
Transient Protection:	500 mW-s Transorb
Maximum Length:	4000 ft (1.2 km) RS-485
Repeater:	ASI Converter/Repeater every 32 devices

System Bus Communication

Address Range:	32,001 to 32,255
Maximum Size:	Up to 255 devices with repeaters
Baud Rate:	Up to 19,200 baud

Local Bus Communication

Address Range:	1 to 32,000
Maximum Size:	Up to 64 devices with repeaters
Maximum Baud Rate:	Up to 9600 baud

Specifications Continued

Connections

Power:	Molex 3 pin plug connector
Input:	2 Molex 15 pin plug connector
Binary Output:	2 Molex 12 pin plug connector
Analog Output:	Molex 15 pin receptacle connector
Communications:	2, 3 Position, screw terminals Mini-Molex 8 pin connector for DAK-002-E 9 position DE-9 female for RS-232

Other

Microprocessor:	Intel 80C196 microcontroller
Memory:	Firmware, 512 kbits EPROM Volatile, 32kbytes RAM Non-volatile, 32 kbytes EEPROM
Indication:	1 Red LED, Power 2 Red LED Receive, 2 Green LED Transmit 4 Amber LED programmable. 12 Red LED, Binary Outputs

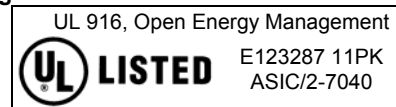
Overall Dimensions with base:

7.7" x 10.2" x 2.5" (WxLxH)
196 mm x 259 mm x 64 mm
with mounting holes on center
7.2" x 7.2" (183 mm x 183 mm)
Weight: 4.4 lb (2.0 kg)

Environmental

Operating:	0 to 40 °C (32 to 104 °F) 10 to 95% rh non-condensing
Storage:	-37 to 80 °C (-35 to +180 °F) 5 to 95% rh non-condensing

UL Listing



Rated as a Class 2 Device, Pilot Duty
Includes MCK-003 Molex connector kit with wiring instructions
Use provided connectors. Meets CE requirements.

How to Order:	Order Number
Configurable Controller with enclosure	ASIC/2-7040

Accessories:	Order Number
Three Input Multiplex Kit	MUX-124
Transient Voltage Suppressor Kit, 10 Vdc	TVS-10

Software & Documentation:	Order Number
ASI Expert Configuration Software	ASI Expert
ASIC/2-7040 Object Definitions	7040 OBJ DEF
ASIC/2-7040 Users' Manual	7040 Manual



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