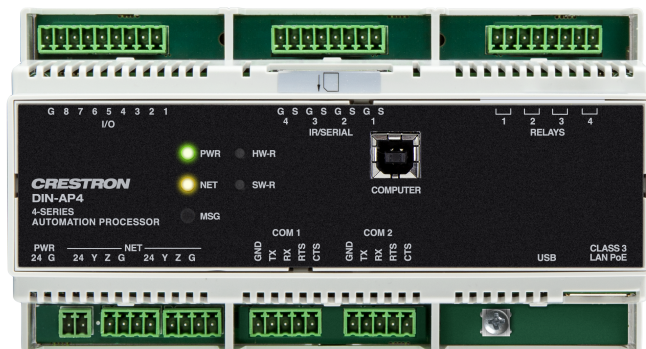


DIN-AP4

4-Series™ DIN Rail Control System



- *4-Series™ control system with 1 GB SDRAM and 8 GB flash memory*
- *Embedded 4-Series multicore CPU processor*
- *iPhone®, iPad®, and Android™ device control app support*
- *XPanel computer and web based control*
- *Modular programming architecture*
- *Onboard IR/serial, COM, I/O, relay, Cresnet® network, and Ethernet control ports*
- *High-speed USB 2.0 host port and memory card slot*
- *Crestron Fusion® software room monitoring and scheduling*
- *XiO Cloud® service provisioning and management*
- *Enterprise-class network security and authentication*
- *SNMP V3 remote IT management support*
- *Native BACnet network/IP support*
- *Installer setup via software, web browser, or cloud*
- *IPv6 ready*
- *Integrates with Apple® HomeKit® technology*
- *Powered via 24 VDC power pack or PoE (Power over Ethernet)*
- *9M wide DIN rail mountable*

The DIN-AP4 is a secure, high-performance control processor with a powerful 4-Series™ control engine designed specifically for DIN rail mounting applications. The DIN-AP4 is designed to integrate and automate technology within any modern networked home, commercial building, or government facility. DIN rail mounting provides a space-efficient, cost-effective, and modular solution for configuring complete automation systems using the DIN-AP4 along with additional Crestron and third-party DIN rail mountable devices.

4-Series Control Engine

4-Series control systems come equipped with an upgraded multicore CPU, delivering a sizable speed and performance increase compared to Crestron 3-Series® control processors. The improved performance allows 4-Series control systems to handle the increasing demands of an advanced automated system.

Reliable networking and IP control afford seamless integration with other systems and devices, with add-on control capability using Crestron touch screens, wireless remotes, and mobile device apps, as well as remote management through Crestron Fusion® software and the XiO Cloud® service.

Modular Programming Architecture

The DIN-AP4 provides a modular programming architecture for running up to ten programs simultaneously. Programmers can develop and run independent, device-specific programs, enabling each program to be optimized for a specific function and allowing for changes to be made to one program without affecting the whole system.

Through a full complement of onboard control ports, the DIN-AP4 can be integrated with a wide variety of audio, video, lighting, motorized shades, thermostats, door locks, sensors, security systems, and other equipment.

- Ethernet provides an interface for connecting to the building network and controlling Crestron AV switchers, audio processors, power controllers, and other IP controllable equipment.
- Cresnet® network connectivity provides support for Crestron lighting dimmers, motorized shades, sensors, thermostats, keypads, and more.
- Onboard RS-232, IR/serial, relay, and Versiport I/O control ports enable direct integration with all types of third-party equipment.

Cresnet Network

Cresnet provides a dependable network wiring solution with simple configuration, carrying bidirectional communication and 24 VDC power to each connected device over a 4-conductor cable. The DIN-AP4 includes a pair of Cresnet master ports (paralleled) capable of supporting approximately 20 typical devices. Larger systems with more than 20 devices can be handled by adding a [DIN-HUB](#) Cresnet distribution hub or a [DIN-CENCN-2](#) Ethernet to Cresnet bridge. Connectivity for multiple wiring runs can be facilitated using one or more [DIN-BLOCK](#) Cresnet distribution blocks (all sold separately).

DIN-AP4

4-Series™ DIN Rail Control System

Crestron Fusion Room Monitoring and Scheduling

As part of a complete managed network, the DIN-AP4 works with Crestron Fusion to enable remote scheduling, monitoring, and control of rooms and technology from a central help desk or mobile app. It also enables organizations to reduce energy consumption by tracking real-time usage and automating control of AV, lighting, shades, and HVAC. For more information about Crestron Fusion, visit www.crestron.com/fusion.

XiO Cloud Provisioning and Management

4-Series control systems leverage the power and flexibility of XiO Cloud services, enabling users to remotely provision, monitor, and manage Crestron devices across an enterprise network. XiO Cloud can be used to configure and load programs to the control system before it is received, making the control system fully functional as soon as it is connected to the network. XiO Cloud is built on the Microsoft® Azure® software platform and utilizes Microsoft's industry leading Azure IoT Hub technology. XiO Cloud enables installers and IT managers to deploy and manage thousands of devices in the time it previously took to manage just one. Unlike other virtual machine based cloud solutions, Azure services provide unlimited scalability to suit the ever growing needs of an enterprise. For more information, visit www.crestron.com/xiocloud.

Enhanced Enterprise-Grade Security

The DIN-AP4 is an enterprise-class control processor that can be deployed across hundreds of spaces and set up easily using a web browser, Crestron Toolbox™ software, or Crestron XiO Cloud. It employs standard network security protocols, including 802.1X network access control, Active Directory® service authentication, SSH, TLS, and HTTPS to ensure reliability and compliance with your organization's IT policies.

The DIN-AP4 is configured to meet Crestron's enhanced security standards right out of the box. The DIN-AP4 ships with authentication enabled and requires that an administrator account be created before access is granted to device configuration and control interfaces.

SNMP V3 Support

Built-in SNMP V3 support enables integration with third-party IT management software, allowing network administrators to manage and control Crestron systems on the network in an IT-friendly format.

BACnet Support

Native support for the BACnet communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, and other systems. Using BACnet, each system runs independently but communicates together on one platform.¹

Apple HomeKit Integration

The DIN-AP4 supports integration with an Apple® HomeKit® technology system. Once the DIN-AP4 is paired with a HomeKit system via [SIMPL](#) programming, a Crestron [TSR-310](#) can be used to control supported Apple devices. A pairing QR code is affixed to the DIN-AP4 that makes it easy to pair the control system directly to the Apple Home app.²

Versatile Power Options

The DIN-AP4 can be powered using a 24 VDC power pack ([PW-2407WUL](#) or equivalent, sold separately) or via PoE (Power over Ethernet). Using PoE technology, the DIN-AP4 gets its operating power directly through the LAN wiring. A PoE injector ([PWE-4803RU](#)) simply connects in line with the LAN cable at a convenient location. Crestron PoE switches ([CEN-SW-POE-5](#) or [CEN-SWPOE-16](#)) may also be used to provide a total networking solution with built-in PoE. All PoE injectors and switches are sold separately.

DIN Rail Mounting

The DIN-AP4 is designed to attach to a standard DIN rail for installation in a wall mount enclosure (Crestron [DIN-EN](#) series or similar) or on a wall panel as part of a complete DIN rail automation system.

4-Series™ DIN Rail Control System

Specifications

Control Engine

Crestron® 4-Series™; real-time, preemptive multi-threaded/multitasking kernel; Transaction-Safe Extended FAT file system; supports up to 10 simultaneously running programs

Communications

Ethernet	100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, industry-standard TCP/IP stack, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), FIPS 140-2 compliant encryption, IEEE 802.1x, SNMP, BACnet and IP ¹ , IPv4 or IPv6, Active Directory® service authentication, HTTPS web server, HTTPS web browser setup and XiO Cloud® client, SMTP email client
Cresnet® Network	Cresnet master mode
USB	Supports USB mass storage class devices via the front panel USB 2.0 host port, supports computer console via the front panel USB 2.0 device port
RS-232/422/485	For 2-way device control and monitoring, supports RS-232, RS-422, or RS-485 up to 115.2k baud with hardware and software handshaking
IR/Serial	Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0–5 V) up to 115.2k baud

Memory

SDRAM	1 GB
Flash	8 GB
Memory Card	Supports SD and SDHC cards up to 32 GB
External Storage	Supports USB storage devices up to 1 TB

Connectors and Card Slots

I/O 1–8	(1) 9-pin 3.5 mm detachable terminal block; Comprises (8) Versiport digital input/output or analog input ports (referenced to GND); Digital Input: Rated for 0–24 VDC, input impedance 20k Ω, logic threshold >3.125 V low/0 and <1.875 V high/1; Digital Output: 250 mA sink from maximum 24 VDC, catch diodes for use with real world loads; Analog Input: Rated for 0–10 VDC, protected to 24 VDC maximum, input impedance 21k Ω with pull-up resistor disabled; Programmable 5 V, 2k Ω pull-up resistor per pin
MEMORY	(1) SD memory card slot; Accepts one SD or SDHC card up to 32 GB for storage of log files
IR/SERIAL 1–4	(1) 8-pin 3.5 mm detachable terminal block; Comprises (4) IR output ports; IR output up to 1.2 MHz; 1-way serial TTL/RS-232 (0–5 V) up to 115.2k baud; IRP2 IR emitters sold separately
RELAYS 1–4	(1) 8-pin 3.5 mm detachable terminal block; Comprises (4) normally open, isolated relays; Rated 1 A, 30 VAC/VDC; MOV arc suppression across contacts
COMPUTER	(1) USB Type B connector, female; USB 2.0 computer console port; For setup only
PWR	(1) 2-pin 3.5 mm detachable terminal block; 24 VDC power input for power pack (sold separately)
NET	(2) 4-pin 3.5 mm detachable terminal blocks, paralleled; Cresnet master port
COM 1–2	(2) 5-pin 3.5 mm detachable terminal blocks; Bidirectional RS-232/422/485 port; Up to 115.2k baud; hardware and software handshaking support
G	(1) 6-32 screw; Chassis ground lug
USB	(1) USB Type A connector, female; USB 2.0 port for storage devices
LAN PoE	(1) 8-pin RJ-45 connector, female; 100BASE-T Ethernet port; PoE (Power over Ethernet) PD (Powered Device) port

DIN-AP4

4-Series™ DIN Rail Control System

Controls and Indicators

PWR	(1) Bicolor green/amber LED, indicates operating power is present; Amber indicates that the device is booting and is not yet ready to operate; Green indicates that the device is ready to operate
NET	(1) Amber LED, indicates communication with Cresnet devices
MSG	(1) Red LED, indicates control processor has generated an error message
HW-R	(1) Recessed push button, initiates hardware reset
SW-R	(1) Recessed push button, initiates software reset
LAN	(1) Green and (1) Amber LEDs; Green LED indicates Ethernet link status and connection speed; Amber LED indicates Ethernet activity

Power

Power Source Options	Power pack (sold separately) or PoE
Power Pack	Must supply 24 VDC to 2-pin terminal block via flying leads; Use model PW-2407WUL or equivalent
Power over Ethernet	IEEE 802.3at Type 1 (802.3af compatible) Class 0 (12.95 W) PoE Powered Device
Available Cresnet Power	2.5 W maximum via PoE; 10 W maximum via 0.75 @ 24 VDC power pack
Power Consumption	9.7 W (not including any connected Cresnet devices)

Environmental

Temperature	41 to 113 °F (5 to 45 °C)
Humidity	10% to 90% RH (noncondensing)
Heat Dissipation	33 BTU/hr

Enclosure

Light gray polycarbonate housing with polycarbonate label overlay, UL94 V-0 rated, 35 mm DIN EN 60715 rail mount, DIN 43880 form factor for enclosures with 45 mm front panel cutout, occupies 9 DIN module spaces (162 mm)

Dimensions

Height	3.57 in (91 mm)
Width	6.33 in (161 mm)
Depth	2.28 in (58 mm)

Weight

9.8 oz (277 g)

Compliance

Regulatory Model: DIN-AP4;
UL® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

Model

DIN-AP4
4-Series™ DIN Rail Control System

Available Accessories

PW-2407WUL
Wall Mount Power Pack, 24 VDC, 0.75 A, Flying Leads, Universal

CEN-SWPOE-16
16-Port Managed PoE Switch

CEN-SW-POE-5
5-Port PoE Switch

PWE-4803RU
PoE Injector

CNSP-XX
Custom Serial Interface Cable

CSP-LIR-USB
IR Learner

IRP2
IR Emitter with Terminal Block Connector

DIN-AO8
DIN Rail Analog Output Module

DIN-BLOCK
DIN Rail Cresnet® Network Distribution Block

DIN-CENCN-2
Ethernet to Cresnet® Network Bridge

DIN-CENCN-2-POE
Ethernet to Cresnet® Network Bridge with PoE

DIN-HUB
DIN Rail Cresnet® Network Distribution Hub

DIN-IO8
DIN Rail Versiport Module

DIN-AP4

4-Series™ DIN Rail Control System

DIN-1DIM4

DIN Rail Dimmer, 1 feed, 4 channels

DIN-1DIMU4

DIN Rail Universal Dimmer, 1 feed, 4 channels

DIN-4DIMFLV4

DIN Rail 0–10V Dimmer Module, 4 feeds, 4 channels

DIN-8SW8-I

DIN Rail High-Voltage Switch with Digital Inputs

DIN-EN-2X18

Enclosure for DIN Rail Devices, 2 DIN Rails, 18 M Wide

DIN-EN-3X18

Enclosure for DIN Rail Devices, 3 DIN Rails, 18 M Wide

DIN-EN-6X18

Enclosure for DIN Rail Devices, 6 DIN Rails, 18 M Wide

DIN-PWS30-277

DIN Rail 30 W Cresnet® Power Supply, 277 V

DIN-2MC2

DIN Rail Motor Control, 2 feeds, 2 channels

SW-3SERIES-BACNET-50+

BACnet Network/IP Support for 3-Series® and 4-Series Control Processors

SW-FUSION-C-3

Crestron Fusion® Cloud; 250 rooms; 3-year service, support, and updates

SW-FUSION-P-L

Crestron Fusion® On-premises; Unlimited rooms; lifetime service, support, and updates

SW-XIOC-EM

XiO Cloud® Provisioning and Management Service, Endpoint Management License for one room

SW-XIOC-S

XiO Cloud® Provisioning and Management Service, Support License for one room

SW-XIOC-API

XiO Cloud® Provisioning and Management Service, REST API License for one room

XPANEL

XPanel – Crestron Control® Interface for Computers

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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Specifications are subject to change without notice.

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Notes:

1. A BACnet and IP license is required. A free license is available to support up to 50 BACnet objects on a single 4-Series control system. Enabling support for more than 50 BACnet objects requires the purchase of one [SW-3SERIES-BACNET-50+](http://www.crestron.com/licenses/sw-3series-bacnet-50) license. The DIN-AP4 supports a maximum of 500 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity. To obtain the license, visit www.crestron.com/bacnetlicense.
2. This feature is only available when using the TSR-310. Other Crestron touch screens, handheld remotes, and keypads are not supported. For these interfaces, traditional IR or CEC control must be used to control supported Apple devices.

DIN-AP4

4-Series™ DIN Rail Control System

