CP4-R

CRESTRON **HOME**

4-Series Control Processor for Crestron Home™ OS

- *Advanced 4-Series control processor designed exclusively for Crestron Home™ OS 3*
- *4-Series multicore CPU processor delivers remarkable speed and performance*
- *Enhanced performance to handle larger home automation, home theater, multiroom video, and MDU applications*
- *Communicates with the Crestron Home App for system configuration and control*
- *Integrates control and monitoring of audio, video, lighting, shades, thermostats, door locks, sensors, and other devices*
- *Includes built-in IR, COM, I/O, relay, Cresnet® network, and high-speed gigabit Ethernet control ports*
- *Supports infiNET EX® network wireless devices via an optional external wireless gateway*
- *Native BACnet™ network/IP support*
- *Enterprise-class network security*
- *Single-space 19 in. rack mountable*
- *External 100–240 V power pack included*

The 4-Series Control Processor for Crestron Home™ OS (CP4-R) provides a secure, high-performance, rack-mountable control processor with the embedded Crestron Home operating system. It is designed exclusively to function as the core of a Crestron Home system, and features enhanced processing power to handle larger home automation, home theater, multiroom video, and MDU (multidwelling unit) applications. The CP4-R comes equipped with a 4-Series multicore CPU processor that delivers remarkable speed and performance while handling the demands of an advanced automated system.

Through a full complement of onboard control ports, the CP4-R allows Crestron Home to integrate with a wide variety of audio, video, lighting, motorized shades, thermostats, door locks, sensors, and other equipment. Integration with a security system is supported using the optional COM Port Expander (PYNG-CONNECT-COM, sold separately).

Crestron Home unlocks the full potential of a smart home. It provides dealers with the ability to deliver a simple and clean user interface that includes sophisticated page designs; fluid dynamic room controls and icons; and new features including support for multiple homes, favorites, custom access, room image customizations, and more. The CP4-R can be upgraded from Crestron Pyng® OS 2 to Crestron Home OS via a firmware upgrade.

Refer to www.crestron.com/crestronhome for more information about Crestron Home and for a list of supported Crestron and third-party equipment.[2]

Specifications

Communications

Ethernet	100/1000 Mbps, autoswitching, autonegotiating, autodiscovery, 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, IPv4 or IPv6, Active Directory® software authentication, HTTPS web server, SMTP email client
Cresnet® Network	Cresnet master mode[1]
USB	Supports USB mass storage class devices via the rear 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, all ports support RS-232 up to 115.2k baud with software handshaking, one port also supports RS-422 or RS-485 and hardware handshaking
IR	Supports 1-way device control via infrared up to 1.2 MHz
BACnet™ network/IP	Supports up to 2000 BACnet objects

Memory

SDRAM	2 GB
Flash	8 GB
Memory Card	Supports SD and SDHC cards up to 32 GB (4 GB included)
External Storage	Supports USB mass storage devices up to 1 TB

Connectors and Card Slots

RELAY OUTPUT 1–8	(2) 8-pin 3.5 mm detachable terminal blocks; Comprises (8) normally open, isolated relays; Rated 1 A, 30 V AC/DC; MOV arc suppression across contacts

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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 >3.125V low/0 and <1.875V 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
IR-Serial Output 1–8	(2) 8-pin 3.5 mm detachable terminal blocks; Comprises (8) IR output ports; IR output up to 1.2 MHz; 1-way Serial TTL/RS-232 (0–5 V) up to 115.2k baud 4 IRP2 IR emitters included, additional emitters sold separately
COM 1	(1) 5-pin 3.5 mm detachable terminal block; Bidirectional RS-232/422/485 port; Up to 115.2k baud; hardware and software handshaking support
COM 2–3	(2) 3-pin 3.5 mm detachable terminal blocks; Bidirectional RS-232 ports; Up to 115.2k baud; software handshaking support
MEMORY	(1) SD memory card slot; Accepts one SD or SDHC card up to 32 GB for storage of log files; 4 GB SDHC card included
USB	(1) USB Type A connector, female; USB 2.0 port for storage devices
LAN	(1) 8-pin RJ45 connector, female; 100/1000 Base-TX Ethernet port
NET	(1) 4-pin 3.5 mm detachable terminal block; Cresnet master port[1]; Outputs power to Cresnet devices only if the included power pack is connected to the 24 VDC power input jack; Alternately functions as a Cresnet power input to power the unit from a Cresnet power supply; See Power section below for additional specifications
24VDC 2.0A	(1) 2.1 x 5.5 mm DC power connector; 24 VDC power input; PW-2420RU power pack included; Passes through to the NET port to power Cresnet devices; See Power section below for additional specifications
G	(1) 6-32 screw; Chassis ground lug
COMPUTER (front)	(1) USB Type B connector, female; USB 2.0 computer console port (6 ft / 1.8 m cable included); For setup only

Controls and Indicators

PWR	(1) Green LED, indicates operating power is supplied from the power pack or Cresnet power supply
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 for hardware reset
SW-R	(1) Recessed push button for software reset
LAN (rear)	(2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

Power

Power Source Options	Power pack or Cresnet (connect only one)
Power Pack (included)	Input: 100–240 VAC, 50/60 Hz; Output: 2.5 A @ 24 VDC;
Cresnet Power Usage	15 W (0.625 A @ 24 VDC) when powered by a Cresnet power supply only
Available Cresnet Power	24 W (1 A @ 24 VDC) when powered by the included power pack only
Power Consumption	15 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	50 BTU/hr

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4-Series Control Processor for Crestron Home™ OS

Construction

Chassis	Metal housing, black finish
Front Panel	Extruded metal, black finish, polycarbonate label overlay
Mounting	Freestanding or 1 RU 19-in. rack-mountable (adhesive feet and rack ears included)

Dimensions

Height	1.70 in. (44 mm) without feet
Width	17.28 in. (439 mm), 19.00 in. (483 mm) with rack ears
Depth	6.56 in. (167 mm)

Weight

3.12 lb (1.42 kg)

Compliance

UL® Listed for US & Canada, CE, IC, FCC Part 15 Class B digital device

Models

CP4-R

Included Accessories

PW-2420RU
24 Volt DC Power Pack, Universal
(Qty. 1 included)

IRP2
IR Emitter
(Qty. 4 included)

Available Accessories

C2N-HBLOCK
Multi-type Cresnet® Network Distribution Block

CEN-IO-COM-102
Wired Ethernet Module with 2 COM Ports

CEN-IO-DIGIN-104
Wired Ethernet Module with 4 Digital Inputs

CEN-IO-IR-104
Wired Ethernet Module with 4 IR Ports

CEN-IO-RY-104
Wired Ethernet Module with 4 Relay Ports

CEN-GWEXER
infiNET EX® Network and ER Wireless Gateway

CENI-GWEXER
infiNET EX® Network and ER Wireless Gateway - International Version

CNSP-XX
Custom Serial Interface Cable

CNTBLOCK
Cresnet® Network Distribution Block

CRESTRON-HOME
Crestron Home™ OS App

IRP2
IR Emitter Probe with Terminal Block Connector

MYCRESTRON-DDNS
myCrestron Dynamic DNS Service for Crestron® Systems

PYNG-CONNECT-COM
COM Port Expander for Crestron Home™ OS

Notes:

1. The Cresnet port is strictly for use with specific Crestron devices that work with Crestron Home. In addition to Cresnet or Ethernet, many Crestron wireless devices are also supported by adding an infiNET EX wireless gateway. For a list of Crestron Home compatible devices, please visit: www.crestron.com/crestronhome.
2. Support for infiNET EX® network wireless devices is enabled by adding an infiNET EX wireless gateway (CEN-GWEXER or CENI-GWEXER sold separately).

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.

Specifications are subject to change without notice.

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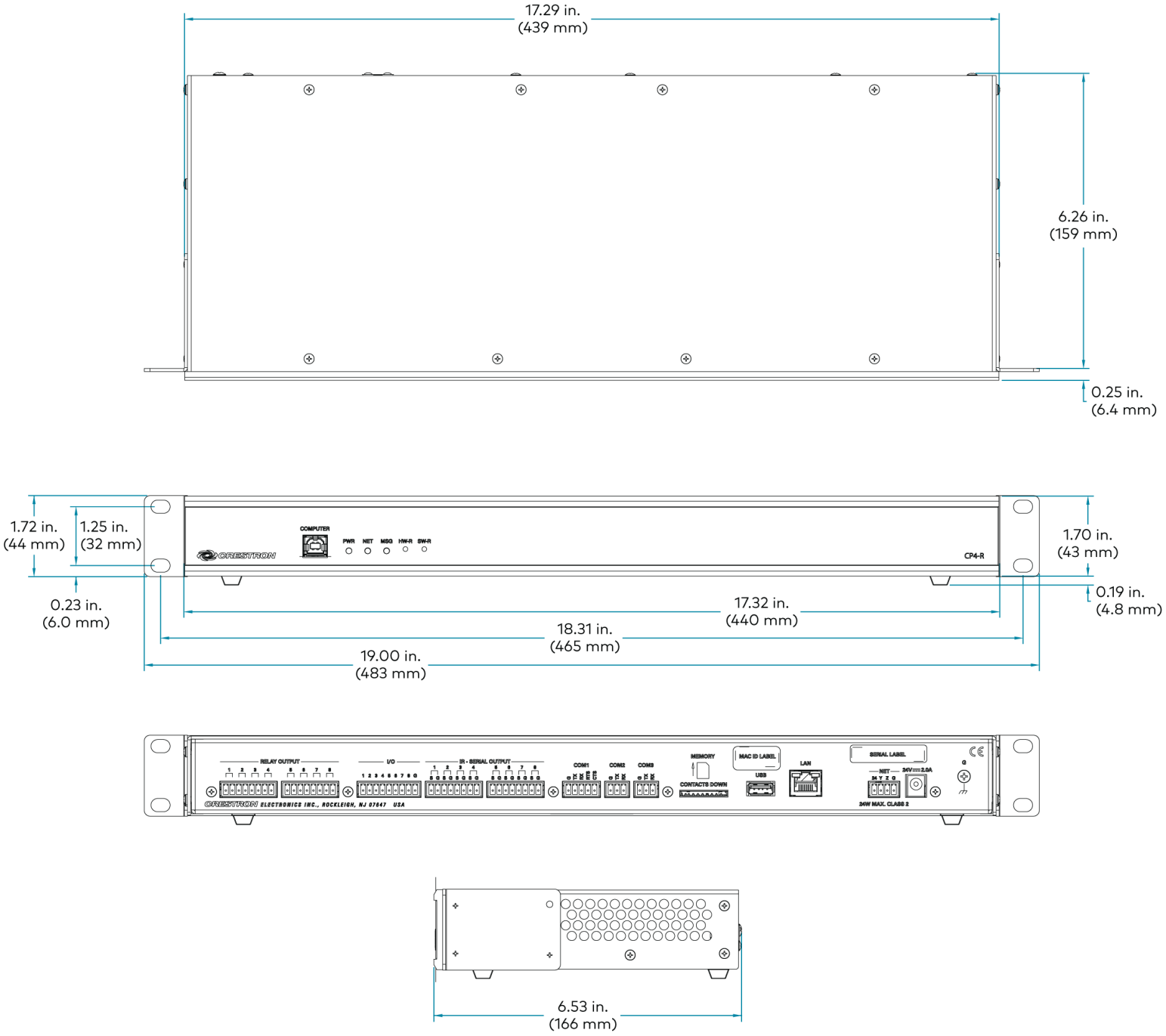
4-Series Control Processor for Crestron Home™ OS



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