4-Series™ Control System for Crestron Home® OS

- Advanced 4-Series™ control processor designed exclusively for Crestron Home® OS
- 4 GB SDRAM and 8 GB Flash Memory
- 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 100–240V power pack included

The Crestron CP4-R is 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 its onboard control ports, the CP4-R allows Crestron Home to integrate with a 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 expanders (CEN-IO-COM-102 or CEN-IO-COM-202). Native support for BACnet™ communications provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, and other systems.¹

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 powerful features such support for multiple homes, favorites, custom access, and room image customizations. 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**

<table>
<thead>
<tr>
<th>Eagleset® Network</th>
<th>Censet server mode³</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>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</td>
</tr>
<tr>
<td>RS-232/422/485</td>
<td>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</td>
</tr>
</tbody>
</table>

**Memory**

<table>
<thead>
<tr>
<th>SDRAM</th>
<th>4 GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash</td>
<td>8 GB</td>
</tr>
<tr>
<td>Memory Card</td>
<td>Supports SD and SDHC cards up to 32 GB (4 GB included)</td>
</tr>
<tr>
<td>External Storage</td>
<td>Supports USB mass storage devices up to 1 TB</td>
</tr>
</tbody>
</table>

**Connectors and Card Slots**

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

Crestron Electronics Inc.  
15 Volvo Drive  |  Rockleigh, NJ 07647  
www.crestron.com  |  800.237.2041
**4-Series™ Control System for Crestron Home® OS**

**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 0–24VDC, input impedance 20k Ω, logic threshold >3.125V low/0 and <1.875V high/1;
Digital Output: 250 mA sink from maximum 24VDC, catch diodes for use with real world loads;
Analog Input: Rated for 0–10VDC, protected to 24VDC maximum, input impedance 21k Ω with pull-up resistor disabled;
Programmable 5V, 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 (0–5V) 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 RJ-45 connector, female;
100BASE-TX/1000BASE-T Ethernet port

**NET**
(1) 4-pin 3.5 mm detachable terminal block;
Cresnet server port;
Outputs power to Cresnet devices only if the included power pack is connected to the 24VDC 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;
24VDC power input;
PW-2420RU power pack included;
Passes through to the NET port to power Cresnet devices;
See Power section below for additional specifications

**Controls and Indicators**

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>(1) Green LED, indicates operating power is supplied from the power pack or Cresnet power supply</td>
</tr>
<tr>
<td>NET</td>
<td>(1) Amber LED, indicates communication with Cresnet devices</td>
</tr>
<tr>
<td>MSG</td>
<td>(1) Red LED, indicates control processor has generated an error message</td>
</tr>
<tr>
<td>HW-R</td>
<td>(1) Recessed push button for hardware reset</td>
</tr>
<tr>
<td>SW-R</td>
<td>(1) Recessed push button for software reset</td>
</tr>
<tr>
<td>LAN (rear)</td>
<td>(2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity</td>
</tr>
</tbody>
</table>

**Power**

<table>
<thead>
<tr>
<th>Power Source Options</th>
<th>Power pack or Cresnet (connect only one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Pack (included)</td>
<td>Input: 100–240VAC, 50/60 Hz; Output: 2.5A @ 24VDC;</td>
</tr>
<tr>
<td>Cresnet Power Usage</td>
<td>15 W (0.625A @ 24VDC) when powered by a Cresnet power supply only</td>
</tr>
<tr>
<td>Available Cresnet Power</td>
<td>24 W (1A @ 24VDC) when powered by the included power pack only</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>15 W (not including any connected Cresnet devices)</td>
</tr>
</tbody>
</table>

**Environmental**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>41 to 113°F (5 to 45°C)</td>
</tr>
<tr>
<td>Humidity</td>
<td>10% to 90% RH (noncondensing)</td>
</tr>
<tr>
<td>Heat Dissipation</td>
<td>50 BTU/hr</td>
</tr>
</tbody>
</table>
4-Series™ Control System for Crestron Home® OS

**Construction**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis</td>
<td>Steel</td>
</tr>
<tr>
<td>Front Panel</td>
<td>Extruded metal, black finish, polycarbonate label overlay</td>
</tr>
<tr>
<td>Mounting</td>
<td>Freestanding or 1U 19 in. rack-mountable (adhesive feet and rack ears included)</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>1.70 in. (44 mm) without feet</td>
</tr>
<tr>
<td>Width</td>
<td>17.28 in. (439 mm), 19.00 in. (483 mm) with rack ears</td>
</tr>
<tr>
<td>Depth</td>
<td>6.56 in. (167 mm)</td>
</tr>
</tbody>
</table>

**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

4-Series™ Control System for Crestron Home® OS

**Included Accessories**

- **PW-262ORU**
  24 Volt DC Power Pack, Universal
  (Qty. 1 included)

- **IRP2**
  IR Emitter
  (Qty. 4 included)

**Available Accessories**

For supported accessories, visit the appropriate CP4-R product page at [www.crestron.com](http://www.crestron.com).

**Notes:**

1. Up to 2000 BACnet objects are supported out of the box with no licensing required.
2. Support for infiNET EX network wireless devices is enabled by adding an infiNET EX wireless gateway ([CEN-GWEXER](http://www.crestron.com) or [CENI-GWEXER](http://www.crestron.com) sold separately).
3. The Crestron Home is designed for use with Crestron devices that work with Crestron Home. In addition to Crestron 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](http://www.crestron.com/crestronhome).

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](http://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](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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