

## 3-Series® Control Processor for Crestron Pyng®

- > Advanced 3-Series® control processor designed exclusively for Crestron Pyng®
- > Enhanced performance to handle larger home automation, home theater, multiroom video, and MDU applications
- > Integrates control and monitoring of audio, video, lighting, shades, thermostats, door locks, sensors, and other equipment
- > Includes built-in IR, COM, I/O, relay, Cresnet®, and high-speed Ethernet control ports<sup>[1]</sup>
- > Supports infiNET EX® wireless devices via an optional external wireless gateway
- > Communicates with the Crestron Pyng App via an internet connection
- > Enables use of Crestron® touch screens, keypads, lighting controls, and handheld remotes
- > Setup via the Crestron Pyng App or a web browser
- > Dynamic Drivers download automatically from the cloud
- > Reports to the MyCrestron Residential Monitoring Service
- > Backs up all settings in the cloud for reliability and serviceability
- > Supports Crestron Sonnex®, DigitalMedia™, and DM® NVX AV signal routing solutions
- > Supports third-party AVRs, DVRs, TVs, and other equipment
- > Integrates with Sonos® wireless speakers and streaming devices
- > Controls projection screens, lifts, garage doors, gates, and fountains
- > Interfaces with a security system via optional COM port expander
- > Enterprise-class network security
- > Single-space 19" rack mountable
- > External 100-240V power pack included

The 3-Series® Control Processor for Crestron Pyng® (CP3-R) provides a secure, high-performance, rack-mountable control processor with embedded Crestron Pyng OS 2 operating system. It is designed exclusively to function as the core of a Crestron Pyng home automation system, and features enhanced processing power to handle larger home automation, home theater, multiroom video, and MDU applications.

Through a full complement of onboard control ports, the CP3-R allows Crestron Pyng 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 Crestron Pyng COM Port Expander (PYNG-CONNECT-COM sold separately).

A complete Crestron Pyng home automation system can be controlled and monitored using the Crestron Pyng App (CRESTRON-PYNG), as well as Crestron® touch screens, keypads, handheld remotes, and lighting controls installed in each room of the home.



Crestron Pyng affords quick custom setup and deployment by a Crestron authorized installer using the Crestron Pyng App or a web browser. Configuration settings are stored onboard the CP3-R and backed up in the cloud to ensure reliable operation and enable secure remote support capability.

Refer to <https://www.crestron.com/crestronpyng> for more information about Crestron Pyng, and a list of supported Crestron and third-party equipment.

Note: Support for infiNET EX® wireless devices is enabled by adding an infiNET EX wireless gateway (CEN-GWEXER or CENI-GWEXER sold separately).

## SPECIFICATIONS

### Communications

**Ethernet:** 10/100 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, IPv4 or IPv6, Active Directory® authentication, HTTPS web server, SMTP e-mail client

**Cresnet:** Cresnet master mode<sup>[1]</sup>

**USB:** Supports USB mass storage class devices via rear panel USB 2.0 host port, supports computer console via 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

### Memory

**SDRAM:** 1 GB

**Flash:** 4 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

# CP3-R 3-Series® Control Processor for Crestron Pyng®



CP3-R – Front & Rear Views

## Connectors & Card Slots

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

**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 Volts DC, input impedance 20k Ohms, logic threshold >3.125V low/0 and <1.875V high/1;  
Digital Output: 250 mA sink from maximum 24 Volts DC, catch diodes for use with “real world” loads;  
Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 21k Ohms with pull-up resistor disabled;  
Programmable 5 Volts, 2k Ohms 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;  
Qty. 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;  
10Base-T/100Base-TX Ethernet port

**NET:** (1) 4-pin 3.5 mm detachable terminal block;  
Cresnet master port<sup>[1]</sup>;  
Outputs power to Cresnet devices 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;  
24 Volt DC 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 & 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 pushbutton for hardware reset

**SW-R:** (1) Recessed pushbutton 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 Volts AC, 50/60 Hz;

Output: 2.5 Amps @ 24 Volts DC;

Model: [PW-2420RU](#)

**Cresnet Power Usage:** 15 Watts (0.625 Amp @ 24 Volts DC) when powered by a Cresnet power supply

**Available Cresnet Power:** 24 Watts (1 Amp @ 24 Volts DC) when powered by the included power pack

**Power Consumption:** 15 Watts (not including any connected Cresnet devices)

# CP3-R 3-Series® Control Processor for Crestron Pyng®

## Environmental

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**Temperature:** 41° to 113° F (5° to 45° C)  
**Humidity:** 10% to 90% RH (non-condensing)  
**Heat Dissipation:** 50 BTU/hr

## Construction

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

## Dimensions

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**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

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3.12 lb (1.42 kg)

## Compliance

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

## MODELS & ACCESSORIES

### Available Models

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CP3-R: 3-Series® Control Processor for Crestron Pyng®

### Included Accessories

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PW-2420RU: 24 Volt DC Power Pack, Universal (Qty. 1 included)  
IRP2: IR Emitter (Qty. 4 included)

### Available Accessories

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CRESTRON-PYNG: Crestron Pyng® App  
PYNG-CONNECT-COM: COM Port Expander for PYNG-HUB  
CEN-GWEXER: infiNET EX® Wireless Gateway  
CENI-GWEXER: infiNET EX® Wireless Gateway – International Version  
MYCRESTRON-DDNS: myCrestron Dynamic DNS Service for Crestron Systems  
C2N-HBLOCK: Cresnet® Network Distribution Block  
CNTBLOCK: Cresnet® Network Distribution Block  
CNSP-XX: Custom Serial Interface Cable  
IRP2: IR Emitter

### Notes:

1. The Cresnet port is strictly for use with specific Crestron devices that work with Crestron Pyng. 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 Pyng compatible devices, please visit: <https://www.crestron.com/crestronpyng>.

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

The specific patents that cover this and other Crestron products are listed online at <https://www.crestron.com/legal/patents>.

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

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