3-Series Control System®

> *Enterprise-class control system*

> *3-Series® Control Engine — substantially faster and more powerful than other control systems*

> *Exclusive modular programming architecture*

> *Onboard 512MB RAM & 4GB Flash memory*

> *Expandable storage up to 1TB*

> *Rear panel memory card slot*

> *High-speed USB 2.0 host port*

> *Industry-standard Ethernet and Cresnet® wired communications*

> *XPanel with Smart Graphics™ computer and web based control*

> *iPhone®, iPad®, and Android™ control app support*

> *Crestron Fusion® Cloud Enterprise Management Service support*

> *SNMP remote management support*

> *One RS-232/422/485 COM port with hardware and software handshaking*

> *Two RS-232 COM ports with software handshaking only*

> *Eight IR/serial, eight relay, and eight Versiport I/O ports*

> *Programmable event scheduling with astronomical time clock*

> *Native BACnet™/IP support[1]*

> *Installer setup via Crestron Toolbox™ software or web browser*

> *C#, symbol based, and drag-and-drop programming environments*

> *Full Unicode (multi-language) support*

> *Increased network throughput and security*

> *Secure access through full user/group management or Active Directory integration*

> *Hardware level security using 802.1X authentication*

> *JITC certified model available for use in secure network environments*

> *TLS, SSL, SSH, and SFTP network security protocols*

> *FIPS 140-2 compliant encryption*

> *IIS v.6.0 Web Server*

> *IPv6 ready*

> *Front panel USB computer console port*

> *1-space rack-mountable*

The Crestron® CP3 is an enterprise-class control system for residential, commercial, and government applications. Featuring the 3-Series® control engine, the CP3 forms the core of any modern networked home or commercial building, managing and integrating all the disparate technologies throughout your facility to make life easier, greener, more productive, and more enjoyable.

3-Series® Control Systems

Today's commercial buildings and custom homes comprise more technology than ever before, and all these systems need to be networked, managed, and controlled in fundamentally new ways. The IP based 3-Series platform is engineered from the ground up to deliver a network-grade server appliance capable of faithfully handling everything from boardroom AV and home theater control to total building management.

3-Series embodies a distinctively robust, dynamic, and secure platform to elevate your system designs to higher levels of performance and reliability. Compared to other control systems, Crestron 3-Series provides a pronounced increase in processing power and speed with more memory, rock solid networking and IP control, and a unique modular programming architecture.

Modular Programming Architecture

Designed for enhanced scalability, the CP3 affords high-speed, real-time multi-tasking to seamlessly run multiple programs simultaneously. This exclusive modular programming architecture lets programmers independently develop and run device-specific programs for AV, lighting, shades, HVAC, security, etc., allowing for the optimization of each program, and allowing changes to be made to one program without affecting the whole. Even as your system grows, processing resources can easily be shifted from one 3-Series processor to another without rewriting any code. The end benefit is dramatically simplified upgradability with minimal downtime, whether implementing changes on site or remotely via the network.

Robust Ethernet & IP Control

IP technology is the heart of 3-Series, so it should be no surprise that its networking abilities are second to none. High-speed Ethernet connectivity enables integration with IP-controllable devices and allows the CP3 to be part of a larger managed control network. Whether residing on a sensitive corporate LAN, a home network, or accessing the Internet through a cable modem, the CP3 provides secure, reliable interconnectivity with IP-enabled touch screens, computers, mobile devices, video displays, media servers, security systems, lighting, HVAC, and other equipment — whether on premises or across the globe.

CP3 – Rear View

Control Apps & XPanel

Years ago, Crestron pioneered the world's first IP-based control system unleashing vast new possibilities for controlling, monitoring, and managing integrated systems over a LAN, WAN, and the Internet. Today, Crestron offers more ways than ever to control your world the way you want. Using a computer, smartphone, or tablet device, Crestron lets you control anything in your home or workplace from anywhere in the world.

Native to every 3-Series control system, Crestron XPanel technology transforms any laptop or desktop computer into a virtual Crestron touch screen. Crestron control apps deliver the Crestron touch screen experience to iPhone®, iPad®, and Android™ devices, letting you safely monitor and control your entire residence or commercial facility using the one device that goes with you everywhere.

Crestron Fusion® Cloud

Crestron Fusion Cloud provides an integrated platform for creating truly smart buildings that save energy, enhance worker productivity, and prolong the life-span of valuable equipment. As part of a complete managed network in a corporate enterprise, college campus, convention center, or any other facility, the CP3 works integrally with Crestron Fusion Cloud to enable remote scheduling, monitoring, and control of rooms and technology from a central help desk. It also enables organizations to reduce energy consumption by tracking real-time usage and automating control of lighting, shades, and HVAC.

SNMP Support

Built-in SNMP 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.

Cresnet®

Cresnet provides a dependable network wiring solution for Crestron keypads, lighting controls, shade motors, thermostats, occupancy sensors, and other devices that don't require the higher speed of Ethernet. The Cresnet bus offers easy wiring and configuration, carrying bidirectional communication and 24VDC power to each device over a simple 4-conductor cable. To assist with troubleshooting, the CP3 includes our patent-pending Network Analyzer which continuously monitors the integrity of the Cresnet network for wiring faults, marginal performance, and other errors.

Onboard Control Ports

In addition to Ethernet, the CP3 includes three bidirectional COM ports and eight IR ports to interface directly with all of your centralized AV sources, video displays, and other devices. Eight programmable relay ports are included for controlling projection screens, lifts, power controllers, and other contact-closure actuated equipment. Eight "Versiport" I/O ports enable the integration of power sensors, motion detectors, door switches, alarms, or anything else that provides a dry contact closure, low-voltage logic, or 0-10 Volt DC signal.

BACnet™/IP

Native support for the BACnet/IP communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, fire & life safety, voice & data, lighting, shades, and other systems. Using BACnet/IP, each system runs independently with the ability to communicate together on one platform for a truly smart building.[1]

Government Version

Crestron is committed to developing solutions for critical secure network environments. A government version of the CP3, model CP3-GV, is available preconfigured for deployment on a multi-level secured network. It has been specially developed and tested with specific government firmware. The CP3-GV has been assessed by JITC using IA requirements from the Department of Defense, and the results have been documented in a DIACAP scorecard. For additional information, see Crestron True Blue Online Help Answer ID 5361.

SPECIFICATIONS

Control Engine

Crestron 3-Series; real-time, preemptive multi-threaded/multitasking kernel; Transaction-Safe Extended FAT file system; supports up to 10 simultaneously running programs

Memory

SDRAM: 512 MB
Flash: 4 GB
Memory Card: Supports SD and SDHC cards up to 32 GB
External Storage: Supports USB mass storage devices up to 1 TB

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, BACnet/IP [1], IPv4 or IPv6, Active Directory authentication, IIS v.6.0 Web Server, SMTP e-mail client
Cresnet: Cresnet master mode
USB: Supports USB mass storage class devices via rear panel USB 2.0 host ports, 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/Serial: Supports 1-way device control via infrared up to 1.2 MHz or serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

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/Serial output ports;
IR output up to 1.2 MHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud

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 memory expansion

USB: (1) USB Type A female;
USB 2.0 port for storage devices

LAN: (1) 8-pin RJ45 jack;
10Base-T/100Base-TX Ethernet port

NET: (1) 4-pin 3.5 mm detachable terminal block;
Cresnet master port;
Outputs power to Cresnet devices if a power pack is connected to the 24VDC power input jack;
Receives Cresnet network power if no power pack is connected to the 24VDC power input jack;
See "Power" section 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 NET port to power Cresnet devices;
See "Power" section for additional specifications

G: (1) 6-32 screw;
Chassis ground lug

COMPUTER (front): (1) USB Type B female;
USB 2.0 computer console port (6 ft cable included);
For setup only

Controls & Indicators

PWR: (1) Green LED, indicates operating power supplied from power pack or Cresnet network
NET: (1) Amber LED, indicates communication with the Cresnet system
MSG: (1) Red LED, indicates control system 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 Pack: 2.0 Amps @ 24 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-2420RU included
Available Cresnet Power: 24 Watts (1 Amp @ 24 Volts DC) when using power pack
Cresnet Power Usage: 15 Watts (0.625 Amp @ 24 Volts DC) when using Cresnet network power

Environmental

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

Enclosure

Chassis: Metal, black finish
Faceplate: Extruded metal, black finish, polycarbonate label overlay
Mounting: Freestanding or 1 RU 19-inch 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)

MODELS & ACCESSORIES

Available Models

CP3: 3-Series Control System®
CP3-GV: 3-Series Control System® - Government Version

Included Accessories

PW-2420RU: Power Pack, Desktop, 24VDC, 2A (50 Watts), Regulated, US/International (Qty. 1 included)

Available Accessories

C2N-HBLOCK: Multi-type Cresnet Distribution Block
CNTBLOCK: Cresnet Distribution Block
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Emitter Probe w/Terminal Block Connector
Crestron® App: Control App for Apple® iOS® & Android™
XPanel: Crestron Control® for Computers
myCrestron: Dynamic DNS Service for Crestron Systems
Crestron Fusion®: Enterprise Management Platform
3-Series® BACnet™/IP Support: 3-Series Native BACnet/IP Interface License
CSP-LIR-USB: IR Learner

Notes:

1. License required. The CP3 supports a maximum of 1000 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity.

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 www.crestron.com/salesreps or by calling 800-237-2041.

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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