

4.3" Touch Screen Control System

- > A complete touch screen control system in one low-cost, space-saving design
- > 3-Series™ control processor — powered by Core 3 OS™
- > 4.3" touch screen — powered by Core 3 UI™
- > Runs a single control system program
- > Includes full Unicode (multi-language) support
- > Onboard 10/100 Ethernet and Cresnet® master ports
- > Control port expansion via C2N-IO module^[1]
- > Supports additional touch screens, keypads, thermostats, dimmers, sensors and other peripherals^[2]
- > Onboard e-Control® Web server
- > Supports Core 3 UI™ XPanel Web-based remote control
- > Supports Crestron Mobile® control apps for iPhone®, iPad® and Android™^[2]
- > Supports Fusion RV™ and SNMP remote management
- > Native BACnet®/IP support^[4]
- > Customizable audio feedback
- > Built-in proximity sensor
- > 10 optional "hard key" pushbuttons
- > Dual-color LED button backlighting and feedback
- > Custom engravable button text
- > PoE network powered
- > Versatile wall, surface, and tabletop mounting options
- > Available with black or white smooth finish

The TPCS-4SM delivers a complete touch screen control system in one incredibly compact wall mount device. Perfect for individual rooms, condominiums, townhouses, MDUs and hotels, the TPCS-4SM combines the functionality of a 3-Series Control System™ and a Crestron Touch Screen for a total control solution. With its clean, contoured appearance, the TPCS-4SM makes an elegant statement in any environment, and its full color touch screen affords a customizable user interface that's both intuitive and fun to use.

No Equipment Rack Required!

Designed for installation on a wall or podium, the TPCS-4SM encapsulates the industry's best control technologies in a low-cost, space-saving design that alleviates the need for a separate equipment rack. Wiring at the TPCS-4SM is minimized through one PoE-enabled LAN port and one Cresnet® port, with expanded connectivity provided through the optional C2N-IO Control Port Expansion Module^[1].

Core 3 OS™ Control Engine

Crestron Core 3 OS delivers a distinctively robust, dynamic, and secure control system platform capable of faithfully managing a room full of disparate technologies — from audio and video equipment to lighting, climate control, shades, drapes, and other amenities. Rock solid networking and IP control afford seamless integration and accessibility beyond the touch screen.^[2]



Core 3 UI™ Graphics Engine

Featuring a high-resolution 4.3" widescreen touch display, the TPCS-4SM offers a fully-customizable user interface with easy-to-use controls and icons, true feedback and real-time status display. Core 3 UI touch screen technology enables the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Core 3 UI, programmers can swiftly integrate advanced controls using gestures, animation, and metadata for an engaging and ultra-intuitive touch screen experience.

Some Core 3 UI enhancements:

- Cool-looking graphical buttons, sliders, knobs, and gauges are intuitive and fun to use.
- Kinetic effects enhance the feeling of realism with lists and toolbars that scroll with momentum at the flick of a fingertip.
- Drag-and-drop objects snap into place offering an easy way to assign assets to rooms.
- Desktop widgets personalize the touch screen with animated clocks, calendars, weather, news, and other information.
- Customizable themes allow a completely different look and feel for every user, event, or season.
- Fully-developed SmartObjects™ enable sophisticated control over complex devices with minimal programming.
- Smart Sizing™ scales objects perfectly and instantly for faster GUI development — even across different sized touch screens.

Dual-Color Backlit Buttons

In addition to its touch screen, the TPCS-4SM comes standard with 10 programmable "hard key" pushbuttons for quick access to commonly used functions. Each button features a translucent button cap with a choice of red or green LED backlighting. The backlighting is fully dimmable, either globally or separately for the left side and right side. Alternately, each button LED can be programmed to provide discrete feedback, affording clear indication of the status of each individual button.

TPCS-4SM 4.3" Touch Screen Control System



TPCS-4SM-B-S with "No-Button" Covers



TPCS-4SM-W-S with
"No-Button" Covers and
TTK-4SM TableTop Kit

TPCS-4SM-B-S
with WMKU-4SM
Universal
Wall Mount Kit



TPCS-4SM-W-S with
"No-Button" Covers and
MSMK-4SM Multi-Surface Mount Kit
(Shown w/optional angle bracket)



Customized labeling of the covers surrounding the pushbuttons can be attained using Crestron Engraver software. Or, for a clean appearance, either column of buttons may be removed and covered using the no-button covers provided.

Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

Proximity Sensor

The TPCS-4SM senses as you approach it, waking its display automatically without having to touch the screen so it's always ready for use.

Robust Ethernet

High-speed Ethernet connectivity enables integration with IP-controllable devices and allows the TPCS-4SM to be part of a larger managed control network. Whether residing on a home network or a sensitive corporate LAN, the TPCS-4SM provides secure, reliable interconnectivity with computers, mobile devices, video displays, media servers, security systems, and other equipment — whether on premises or across the globe.^[2]

e-Control® Remote Access

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, our many e-Control solutions offer more ways than ever to control your world the way you want.

With e-Control built-in, the TPCS-4SM lets you control anything in your home or office from anywhere in the world using an iPhone®, iPad®, or Android™ device, or any popular Web browser.^[2] Remote access is simplified using the myCrestron Dynamic DNS service to establish a friendly URL for your home system. And should you ever need technical support, your Crestron system installer can even perform diagnostics and implement updates to the system remotely without coming on site.

Fusion RV™ and SNMP

As part of a complete managed network in a hotel, office building, university, or apartment complex, the TPCS-4SM works integrally with Crestron Fusion RV Remote Asset Management Software to enable remote scheduling, monitoring, and control from a central help desk. Built-in SNMP support offers an alternative solution suited to IT personnel using third-party network management software.

TPCS-4SM 4.3" Touch Screen Control System

Power over Ethernet

The TPCS-4SM gets its power right through the LAN wiring using PoE technology. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector ([PWE-4803RU^{\[1\]}](#)) simply connects in line with the LAN cable, allowing for installation at a convenient location. Crestron PoE switches ([CEN-SW-POE-5](#), [CEN-SWPOE-16](#), or [CEN-SWPOE-24^{\[1\]}](#)) may also be used to provide a total networking solution with built-in PoE.

Simple, Versatile Mounting

The TPCS-4SM installs easily on virtually any mounting surface. As standard, it mounts directly to a single-gang electrical box (horizontally oriented) or European electrical box, requiring just 1/2-inch mounting depth while protruding less than 3/4-inch from the wall surface. It can also be adapted for mounting to a vertically-oriented 1-gang or 2-gang electrical box, or a 2-gang UK electrical box, using the optional [WMKU-4SM](#) Universal Wall Mount Kit^[1], which can also be used without an electrical box for a low-profile surface-mount solution^[3].

For impenetrable surfaces, such as decorative glass, granite, marble, plaster, smooth stone and masonry, Crestron offers the [MSMK-4SM](#) Multi-Surface Mount Kit^[1], which provides a very versatile mounting solution complete with a low-profile rear shell enclosure, adhesive mounting plate, optional angle bracket, and wire raceway. And finally, the [TTK-4SM](#) Table Top Kit^[1] converts the TPCS-4SM into a stylish, compact tabletop touch screen, perfect for free-standing use or permanently-mounted on a tabletop or counter surface.

Control Port Expander^[1]

Interfacing with IR, serial, and relay controlled devices is facilitated using the [C2N-IO](#) Control Port Expansion Module^[1]. The C2N-IO is a compact device that can be mounted virtually anywhere. It connects to the TPCS-4SM via the Cresnet port, and provides one bidirectional RS-232 port, one IR/serial port, and two relay ports for integration with third-party devices. Besides the C2N-IO, the TPCS-4SM is compatible with the complete line of Crestron control modules, 3-Series™ control card interfaces, sensors, lighting controllers, thermostats, keypads, and wireless gateways to accommodate virtually any control function or system integration need.^[2]

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.^[4]

SPECIFICATIONS

Control Engine

Core 3 OS™; real-time, preemptive multi-threaded/multitasking kernel;
Transaction-Safe Extended FAT file system ^[2]

Graphic Engine

Core 3 UI™

Memory

SDRAM: 256 MB

Flash: 2 GB

Maximum Touch Screen Project Size: 60 MB

Communications

Ethernet: 10/100 Mbps; auto-switching; auto-negotiating; auto-discovery; full/half duplex; industry-standard TCP/IP stack; UDP/IP; CIP; DHCP; SSL; IEEE 802.1X; SNMP; BACnet®/IP^[4]; IPv4 or IPv6; Active Directory authentication; IIS v.6.0 Web Server; SMTP e-mail client; installer setup via Crestron Toolbox™ or MSIE^[5]; supports all e-Control®, Crestron Mobile®, Crestron Fusion™ and RoomView® applications, IEEE 802.3af and 802.3at Type 1 compliant

Cresnet®: Cresnet master mode

Audio

Audio Feedback Format: MP3

Touch Screen Display

Display Type: TFT Active matrix color LCD

Size: 4.3 inch (109 mm) diagonal

Aspect Ratio: 16:9 WVGA

Resolution: 800 x 480 pixels

Brightness: 270 nits (cd/m²)

Contrast: 300:1

Color Depth: 16-bit, 64k colors

Illumination: Backlit LED

Viewing Angle: ±80° horizontal, ±80° vertical

Touch Screen: Resistive membrane

Buttons

Hard Keys: (10) Optional programmable pushbuttons, translucent backlit

Feedback/Backlight: (1) red and (1) green LED per hard key, programmable for feedback and backlighting

Reset: (1) Recessed pushbutton behind pinhole for hardware reset

Proximity Sensor

Type: Active infrared beam and receiver

Range: 3-4 feet

Wakes the touch screen and backlight

Connectors

LAN PoE: (1) 8-wire RJ45 with 2 LED indicators;

10Base-T/100Base-TX Ethernet port;

Power over Ethernet compliant;

Green and yellow LEDs indicate Ethernet port status

TPCS-4SM 4.3" Touch Screen Control System

NET: (4) captive screw terminals;
Cresnet master port;
Connects to C2N-IO Control Port Expansion Module and other
Cresnet devices^[1,2]

Power Requirements

Power over Ethernet: IEEE 802.3af (802.3at Type 1) Class 3 PoE Powered Device
Available Cresnet Power: 4 Watts (167 mA @ 24 Volts DC)

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 14 BTU/Hr

Enclosure

Construction: Plastic, black or white, smooth finish
Front Bezel: Plastic, hard buttons installed with pre-labeled button covers, custom engraving sold separately, "no-button" covers also included
Mounting: Requires a horizontally-oriented 1-Gang electrical box or plaster ring, or a 1-Gang European (DIN 49073) electrical box; choice of standard or security screws provided; optional universal wall, multi-surface, and table top mounting kits sold separately

Dimensions

Height: 3.47 in (89 mm)
Width: 6.20 in (158 mm)
Depth: 1.21 in (31 mm)

Weight

8.8 oz (249 g)

MODELS & ACCESSORIES

Available Models

TPCS-4SM-B-S: 4.3" Touch Screen Control System, Black Smooth
TPCS-4SM-W-S: 4.3" Touch Screen Control System, White Smooth

Available Accessories

4SM-BTNO: Engravable Button Covers, Set of 2
WMKU-4SM: Universal Wall Mount Kit
MSMK-4SM: Multi-Surface Mount Kit
TTK-4SM: TableTop Kit
SMK-4SM: Swivel Mount Kit for TTK-4SM
C2N-IO: Control Port Expansion Module
C2N-HBLOCK: Multi-type Cresnet Distribution Block
PWE-4803RU: PoE Injector
CEN-SW-POE-5: 5-Port PoE Switch
CEN-SWPOE-16: 16-Port Managed PoE Switch
CEN-SWPOE-24: 24-Port Managed PoE Switch

SW-VMK-WIN: TouchPoint® Virtual Mouse & Keyboard Software for Windows®

CRESTRON-MOBILE-PRO: Crestron Mobile Pro® Control App for iPhone®, iPod touch®, and Android™

SW-FUSION-RV: Fusion RV™ Remote Asset Management Software

SW-ROOMVW-ENT: RoomView® Express - Remote Help Desk and Resource Management Software, Full License

3-Series™ BACnet®/IP Support: 3-Series Native BACnet/IP Interface License

CSP-LIR-USB: IR Learner

Notes:

1. Item(s) sold separately.
2. The TPCS-4SM supports a maximum of 10 Ethernet devices, 10 Cresnet® devices, one infiNET EX® wireless gateway, and one Crestron Mobile® device.
3. WMKU-4SM mounting option requires a minimum surface cut-out or wall box opening of 1.7" high x 2.0" wide.
4. License required. The TPCS-4SM supports a maximum of 250 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity.
5. Web-based installer setup requires the Microsoft® Internet Explorer® Web browser running on a Windows® PC.

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.

Specifications subject to change without notice. Crestron is not responsible for errors in typography or photography.

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

3-Series, 3-Series Control System, Core 3, Core 3 OS, Core 3 UI, Cresnet, Crestron, Crestron Fusion, Crestron Toolbox, Crestron Mobile, Crestron Mobile Pro, e-Control, Fusion RV, RoomView, Smart Sizing, SmartObjects, TouchPoint, and the Crestron logo are either trademarks or registered trademarks of Crestron Electronics, Inc. in the United States and/or other countries. BACnet and the BACnet logo are either trademarks or registered trademarks of American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. in the United States and/or other countries. iPad and iPhone are either trademarks or registered trademarks of Apple Inc. in the United States and/or other countries. Android is either a trademark or registered trademark of Google Inc. in the United States and/or other countries. Internet Explorer, Microsoft, and Windows are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. ©2012 Crestron Electronics, Inc.

TPCS-4SM 4.3" Touch Screen Control System

