Technical Data

Original Instructions

Allen-Bradley

PanelView 5310 Terminals Specifications

Catalog Numbers 2713P-T6CD1, 2713P-T6CD1-B, 2713P-T6CD1-K, 2713P-T7WD1, 2713P-T7WD1-B, 2713P-T7WD1-K, 2713P-T9WD1, 2713P-T9WD1-B, 2713P-T9WD1-K, 2713P-T10CD1, 2713P-T10CD1-B, 2713P-T10CD1-K, 2713P-T12WD1, 2713P-T12WD1-B, 2713P-T12WD1-K

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The PanelView™ 5310 terminals are operator interface devices that monitor and control devices attached to ControlLogix® 5570 and 5580, and CompactLogix™ L1, L2, and L3 controllers over an EtherNet/IP™ network. Animated graphic and text displays provide operators with a view into the operating state of a machine or process. Operators interact with the control system by using the touch screen.

The PanelView 5310 terminals include these features and capabilities:

- Tightly integrated control and design environment allows information to be shared between the PanelView 5310 terminal and the Logix platforms.
- The Studio 5000® environment provides one point of access for the Studio 5000 View Designer® and Studio 5000 Logix Designer® applications.(1)
- Connection to one ControlLogix 5570, ControlLogix 5580, or CompactLogix L1, L2, or L3 controller with revision 27 firmware or later.
- Supports a maximum of 100 user-defined screens.
- Supports a maximum of 4,000 Logix-based alarms.(1)
- Easily configured screen navigation menu.
- Conformal coating available for all terminal sizes.

(1) PanelView 5310 firmware can support up to 4,000 Logix-based alarms in a single controller if you use Studio 5000 View Designer application version 5 and Studio 5000 Logix Designer application version 32 or higher. Of the 4,000 alarms, no more than 1,000 can be instruction-based. Earlier versions of the Studio 5000 View Designer or Studio 5000 Logix Designer applications can support up to 1,000 Logix-based alarms.

Summary of Changes

This publication contains new and updated information as indicated in this table.

Topic	Page
Added a line to the Environmental Specifications table for corrosive atmosphere specifications.	2

Environmental Specifications

This table provides environmental specifications for the PanelView 5310 terminals.

Attribute	Value
Temperature, operating	0…50 °C (32…122 °F)
Temperature, nonoperating	-25…+70 °C (-13…+158 °F)
Relative humidity	5…95% without condensation
Vibration	0.012 pk-pk, 10…57 Hz 2 g peak at 57…500 Hz
Shock, operating	15 g at 11 ms
Shock, nonoperating	30 g at 11 ms
Altitude, operating	Sea level to 2,000 m (6,562 ft)
Enclosure ratings	NEMA and UL Type 4X, 12, 13, and classified by UL as IP66 (when mounted on a flat surface of an equivalent enclosure)
Corrosive Atmosphere ASTM B845-97 Method H Accelerated Test (20 Day Exposure)	For PanelView 5310 conformal-coated PCBA level products with catalog numbers that end in K, product meets or exceeds the following requirement: Severity Level G3 per ANSI/ISA 71.04.2013

Certifications

This table provides certification information for the PanelView 5310 terminals.

Certification(1)	Value
c-UL-us	c-UL-us Listed to UL 61010-1, UL 61010-2-201, CAN/CSA-C22.2 No. 61010-1, and CAN/CSA-C22.2 No. 61010-2-201; see 2713P-CT002
CE (EMC)	European Union EMC Directive, compliance with: • EN 61131-2; Programmable Controllers (pertinent EMC sections); see 2713P-CT004
EAC	Russian Customs Union TP TC 020/2011 EMC Technical Regulation; see 2713P-CT001
EtherNet/IP	ODVA conformance tested to EtherNet/IP specifications; see 2713P-CT005
KC	KC registered; see 2713P-CT001
RCM	Australian Radiocommunications Act, compliance with: • EN 61000-6-4; Industrial Emissions; see 2713P-CT003
Morocco	Moroccan EMC Directive, compliance with: • NM EN 61131-2; Programmable Controllers EMC; see 2713P-CT008
RoHS	• China RoHS • European RoHS • Turkey RoHS (EEE Yönetmeliğine Uygundur. In Conformity with the EEE Regulation.) • UAE RoHS ENV-CT001

(1) When marked. See the Rockwell Automation® Product Certifications site at rok.auto/certifications for declarations of conformity, certificates, and other certification details.

Technical Specifications

This section provides technical specifications for the PanelView 5310 terminals.

Technical Specifications - PanelView 5310 Terminals

Attribute	6-in. Touch	7-in. Wide Touch	9-in. Wide Touch	10.4-in. Touch	12.1-in. Wide Touch
	2713P-T6CD1 2713P-T6CD1-B(1) 2713P-T6CD1-K(2)	2713P-T7WD1 2713P-T7WD1-B(1) 2713P-T7WD1-K(2)	2713P-T9WD1 2713P-T9WD1-B(1) 2713P-T9WD1-K(2)	2713P-T10CD1 2713P-T10CD1-B(1) 2713P-T10CD1-K(2)	2713P-T12WD1 2713P-T12WD1-B(1) 2713P-T12WD1-K(2)
Operator input	Touch				
Conformal coated	Yes				
Display type	Color TFT LCD (thin-film-transistor, liquid-crystal display)				
Display size, diagonal	5.7-in. screen	7-in. widescreen	9-in. widescreen	10.4-in. screen	12.1-in. widescreen
View area, W x H	115 x 86 mm (4.5 x 3.4 in.)	152 x 91 mm (6.0 x 3.6 in.)	196 x 118 mm (7.7 x 4.6 in.)	211 x 158 mm (8.3 x 6.2 in.)	261 x 163 mm (10.3 x 6.4 in.)
Display resolution/ aspect ratio	640 x 480 VGA/4:3	800 x 480 WVGA/5:3	800 x 480 WVGA/5:3	800 x 600 SVGA/4:3	1280 x 800 WXGA/16:10
Color depth	24-bit color graphics (16.7 million colors)				
Brightness, typical	300 cd/m^2 (Nits)				
Backlight	• Light-emitting diode, non-replaceable • Life: 50,000 h min at 40 °C (104 °F) to half-brightness				
Backlight power consumption, typical	2.4 W	3 W	3.5 W	4 W	5 W
Touch screen	• Analog resistive • Actuation rating: 1 million presses • Operating force: <100 grams				
Battery (real-time clock backup)	• Accuracy: +/-2 minutes per month. • Battery life: 4 years min at 25 °C (77 °F) • Replacement: CR2032 lithium coin cell				
Memory RAM User available	 1 GB RAM 1 GB nonvolatile storage for projects				
Secure Digital (SD) card slot	One SD card slot for external storage; supports cat. no. 1784-SD*x* cards. See Secure Digital (SD) Cards on page 6.				
USB ports Host Device	 One USB high-speed 2.0 host port (type A) supports removable drives for external storage. One high-speed 2.0 device port (type B) supports connection to host computer (available in a future release).				
Ethernet port	One 10/100Base-T, Auto MDI/MDI-X Ethernet port for controller communication.				
Status indicators	STS (status, green), ERR (error, red)				
Software	Studio 5000 environment provides single portal to View Designer and Logix Designer applications.				
Electrical					
USB host port (type A)	0.5 A at 5V DC				
Input voltage	24V DC nom (18. . .30V DC)				
Power consumption, max	13 W		14 W	15 W	16 W
Power consumption, typical	9 W		11 W	12 W	12 W
Power dissipation	31 BTU/hr.		38 BTU/hr.	41 BTU/hr.	41 BTU/hr.

Technical Specifications - PanelView 5310 Terminals (Continued)

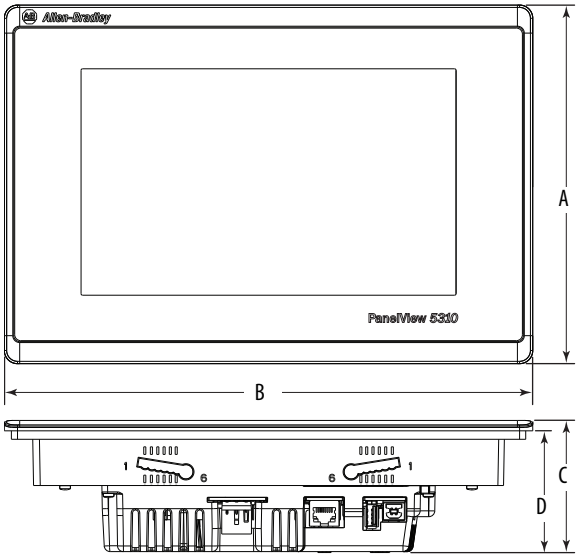
Attribute	6-in. Touch 2713P-T6CD1 2713P-T6CD1-B(1) 2713P-T6CD1-K(2)	7-in. Wide Touch 2713P-T7WD1 2713P-T7WD1-B(1) 2713P-T7WD1-K(2)	9-in. Wide Touch 2713P-T9WD1 2713P-T9WD1-B(1) 2713P-T9WD1-K(2)	10.4-in. Touch 2713P-T10CD1 2713P-T10CD1-B(1) 2713P-T10CD1-K(2)	12.1-in. Wide Touch 2713P-T12WD1 2713P-T12WD1-B(1) 2713P-T12WD1-K(2)
Inrush current, max	15 A				
Power supply	Supports safety extra low voltage and protected extra low voltage 24V DC supplies(3)(4)				
Mechanical					
Weight, approx	0.79 kg (1.7 lb)	2.0 kg (4.4 lb)	2.41 kg (5.31 lb)	3.35 kg (7.39 lb)	3.65 kg (8.0 lb)
Terminal dimensions, approx	See PanelView 5310 Terminal and Cutout Dimensions on this page.				
Cutout dimensions, approx	See PanelView 5310 Terminal and Cutout Dimensions on this page.				

(1) Add -B to the end of a catalog number to order a terminal without the Allen-Bradley® logo and product identification, for example, 2713P-T7WD1-B.
(2) Add -K to the end of a catalog number to order a terminal with conformal coating, for example, 2713P-T6CD1-K.
(3) DC-powered terminals support safety extra low voltage (SELV) and protective extra-low voltage (protected extra low voltage) 24V DC power supplies, such as catalog numbers 1606-XLP95E, 1606-XLP100E, and 2711P-RSACDIN.
(4) Where PELV is defined in IEC 61131-2.

Terminal Dimensions

This section provides dimensions for the PanelView 5310 terminals. The 9-inch widescreen terminal is shown for illustrative purposes. All other terminal sizes look similar.

PanelView 5310 Terminal Dimensions - (9-in. widescreen terminal shown)



PanelView 5310 Terminal and Cutout Dimensions

Terminal Size (in.)	Input Type	Terminal Dimensions				Cutout Dimensions	
		Height (A) mm (in.)	Width (B) mm (in.)	Overall Depth (C) mm (in.)	Mounted Depth (D) mm (in.)	Height (A) mm (in.)	Width (B) mm (in.)
6	Touch	153 (6.0)	186 (7.3)	69.5 (2.74)	64 (2.5)(1)	123 (4.84)	156 (6.14)
7		178 (7.0)	237 (9.3)			148 (5.82)	207 (8.15)
9		190 (7.48)	280 (11.02)			162 (6.38)	252 (9.92)
10.4		252 (9.92)	297 (11.69)			224 (8.82)	269 (10.59)
12.1		246 (9.69)	340 (13.39)			218 (8.58)	312 (12.28)

(1) When mounted in a panel, the front of the bezel extends less than 6 mm (0.24 in.) from the panel.

Studio 5000 Environment

Use the Studio 5000 environment to create HMI applications for the PanelView 5310 terminal platform. This environment includes these major components:

- **Studio 5000 View Designer** – you can create and design a project for a specific PanelView 5310 terminal and download the project to the terminal.

  You can create an application for any PanelView 5310 terminal and reuse that same application across the entire platform.
- **Studio 5000 Logix Designer** – you can develop control logic for a CompactLogix or ControlLogix controller and download the logic to the controller.

In the Studio 5000 environment, you can create an application for any PanelView 5310 terminal and reuse that same application across the entire platform.

Accessories

This section lists accessories for the PanelView 5310 terminals.

Power Supplies and Replacement Power Terminal Blocks

Cat. No.	Description	Quantity
1606-XLB120E	DIN rail power supply, 24…28V DC output voltage, 120 W	1
1606-XLP100E	DIN rail power supply, 24…28V DC output voltage, 100 W	1
1606-XLP95E	DIN rail power supply, 24…28V DC output voltage, 95 W	1
2711P-RSACDIN	DIN rail power supply, AC-to-DC, 85…265V AC, 47…63 Hz	1
2711-TBDC	3-pin DC power terminal block	10

Mounting Hardware

Cat. No.	Description	Quantity
2711P-RMCP[1]	Mounting levers (black)	16

(1) Catalog number 2711P-RMCP mounting levers are used with the PanelView 5310 terminals. Do not use gray mounting levers; they are not compatible with PanelView 5310 terminals.

Secure Digital (SD) Cards[1]

Cat. No.	Description
1784-SD1	1 GB SD card
1784-SD2	2 GB SD card
1784-SDHC8	8-GB SDHC card
1784-SDHC32	32-GB SDHC card
2711C-RCSD	USB to SD adapter for SD card

(1) To help reduce the chance of corruption when you use SD Cards or USB drives with the terminal, Rockwell Automation recommends that you use only the above SD card catalog numbers.

The SD™ and SDHC™ accessory cards in the above table have been designed to meet industrial robustness and environmental requirements. Rockwell Automation recommends that you use these accessory cards with the terminal to help reduce the chances of corruption. Studio 5000 View Designer software requires the following for SD cards that are inserted into the HMI device:

- 4 GB of free space
- A supported SDHC card type, preferably one listed in the Secure Digital (SD) Cards table
- An environmental rating for the PanelView 5000 environment
- A supported format of either FAT32 or ext3

USB Programming Cable

Cat. No.	Description	Length
6189V-USBCBL2	Programming cable that connects the device port of the terminal to a USB host port of a computer	1.8 m (5.9 ft)

Battery Replacement

Cat. No.	Description	Quantity
2711P-RY2032	Lithium coin cell battery, CR2032 equivalent	1

Protective Overlays

Cat. No.[1]	Display Size	Quantity
2711P-RGT6S	6-in.	3
2711P-RGT7SP	7-in. widescreen	
2711P-RGT9SP	9-in. widescreen	
2711P-RGT10SP	10.4-in.	
2711P-RGT12SP	12.1-in. widescreen	

(1) Although these protective overlays were designed for the PanelView 5510 terminals, they can also be used for the PanelView 5310 terminals. However, when these overlays are used on a PanelView 5310 terminal, there is an increased air gap between the overlay and the terminal screen.

Additional Resources

These documents contain more information about related products from Rockwell Automation.

Resource	Description
Visualization Solutions Selection Guide, publication VIEW-SG001	Provides an overview of the visualization products (includes catalog number selections) offered by Rockwell Automation.
PanelView 5310 Terminals User Manual, publication 2713P-UM001	Provides information on how to install, operate, configure, and troubleshoot the PanelView 5310 terminals.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines on how to install a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at https://www.rockwellautomation.com/global/literature-library/overview.page.

Rockwell Automation Support

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Technical Support Center	Knowledgebase Articles, How-to Videos, FAQs, Chat, User Forums, and Product Notification Updates.	www.rockwellautomation.com/knowledgebase
Local Technical Support Phone Numbers	Locate the phone number for your country.	www.rockwellautomation.com/global/support/get-support-now.page
Direct Dial Codes	Find the Direct Dial Code for your product. Use the code to route your call directly to a technical support engineer.	www.rockwellautomation.com/global/support/direct-dial.page
Literature Library	Installation Instructions, Manuals, Brochures, and Technical Data.	www.rockwellautomation.com/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	www.rockwellautomation.com/global/support/pcdc.page

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Rockwell Automation maintains current product environmental information on its website at rok.auto/pec

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