**Original Instructions** 



# **PanelView 5310 Terminals Specifications**

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

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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.

<sup>(1)</sup> 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.

| Торіс  |      |
|--|------|
| Increased maximum number of user-defined screens from 50 to 100.                           | 1    |
| Increased maximum number of Logix-based alarms from 1,000 to 4,000, and added footnote.    | 1    |
| Added operating altitude row to Environmental Specifications table.                        | 2    |
| Updated URL for Rockwell Automation Product Certifications website.                        | 2, 6 |
| Added catalog numbers for 8-GB and 32-GB SD cards, and revised footnote in SD Cards table. | 6    |
| Added SD card content below SD Cards table.  | 6    |

# **Environmental Specifications**

This table provides environmental specifications for the PanelView 5310 terminals.

| Attribute                 | Value   |
|---------------------------|---|
| Temperature, operating    | 050 °C (32122 °F)   |
| Temperature, nonoperating | -25+70 °C (-13+158 °F)  |
| Relative humidity         | 595% without condensation   |
| Vibration                 | 0.012 pk-pk, 1057 Hz<br>2 g peak at 57500 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) |

# Certifications

This table provides certification information for the PanelView 5310 terminals.

| Certification <sup>(1)</sup> | 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 <u>2713P-CT002</u>              |
| 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 <u>2713P-CT005</u>   |
| KC                           | KC registered; see 2713P-CT001  |
| RCM                          | Australian Radiocommunications Act, compliance with:  EN 61000-6-4; Industrial Emissions; see 2713P-CT003                                       |
| RoHS                         | <ul> <li>China RoHS</li> <li>European RoHS</li> <li>Turkey RoHS (EEE Yönetmeliğine Uygundur. In Conformity with the EEE Regulation.)</li> </ul> |

<sup>(1)</sup> When marked. See the Rockwell Automation® Product Certifications site at <u>rok.auto/certifications</u> 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**

|                                      | 6-in. Touch  | 7-in. Wide Touch                            | 9-in. Wide Touch  | 10.4-in. Touch                                | 12.1-in. Wide Touch                           |
|--------------------------------------|--|---|---|---|---|
| Attribute                            | 2713P-T6CD1<br>2713P-T6CD1-B <sup>(1)</sup>  | 2713P-T7WD1<br>2713P-T7WD1-B <sup>(1)</sup> | 2713P-T9WD1<br>2713P-T9WD1-B <sup>(1)</sup>                           | 2713P-T10CD1<br>2713P-T10CD1-B <sup>(1)</sup> | 2713P-T12WD1<br>2713P-T12WD1-B <sup>(1)</sup> |
| Operator input                       | Touch  |   |   |   |   |
| Display type                         | Color TFT LCD (thin-film-trans   | sistor, 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/<br>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 m  | illion colors)                              |   |   |   |
| Brightness, typical                  | 300 cd/m <sup>2</sup> (Nits)   |   |   |   |   |
| Backlight                            | • Light-emitting diode, non<br>• Life: 50,000 h min at 40 °C                             |   |   |   |   |
| Backlight power consumption, typical | 2.4 W  | 3 W   | 3.5 W   | 4 W   | 5 W   |
| Touch screen                         | Analog resistive     Actuation rating: 1 million     Operating force: <100 gra           | presses<br>ms                               |   |   |   |
| Battery (real-time<br>clock backup)  | Accuracy: +/-2 minutes pe     Battery life: 4 years min at     Replacement: CR2032 lithi | 25 °C (77 °F)                               |   |   |   |
| Memory<br>RAM<br>User available      | 1 GB RAM<br>1 GB nonvolatile storage for p   | orojects                                    |   |   |   |
| Secure Digital (SD) card slot        | One SD card slot for external  | storage; supports cat. no. 1784             | -SD <i>x</i> cards. See <u>Secure Digital (</u>                       | (SD) Cards on page 6.                         |   |
| USB ports<br>Host<br>Device          | One high-speed 2.0 device po   | ort (type B) supports connection            | able drives for external storage.<br>In to host computer (available i |   |   |
| Ethernet port                        |  | /MDI-X Ethernet port for contro             | oller communication.  |   |   |
| Status indicators                    | STS (status, green), ERR (erro   |   |   |   |   |
| Software                             | Studio 5000 environment pro  | ovides single portal to View Des            | signer and Logix Designer appli                                       | cations.                                      |   |
| Electrical                           |  |   |   |   |   |
| USB host port<br>(type A)            | 0.5 A at 5V DC   |   |   |   |   |
| Input voltage                        | 24V DC nom (1830V DC)  |   |   |   |   |
| Power consumption,<br>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.                                    |
| Inrush current, max                  | 15 A   |   |   |   |   |
| Power supply                         | Supports safety extra low vol  | tage and protected extra low v              | oltage 24V DC supplies <sup>(2)(3)</sup>                              |   |   |

#### **Technical Specifications - PanelView 5310 Terminals (Continued)**

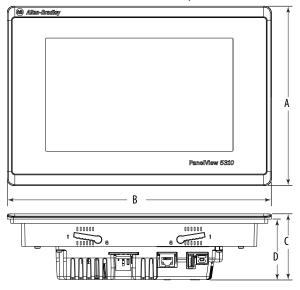
|                             | 6-in. Touch  | 7-in. Wide Touch                            | 9-in. Wide Touch                            | 10.4-in. Touch                                | 12.1-in. Wide Touch                           |
|-----------------------------|--|---|---|---|---|
| Attribute                   | 2713P-T6CD1<br>2713P-T6CD1-B <sup>(1)</sup>                            | 2713P-T7WD1<br>2713P-T7WD1-B <sup>(1)</sup> | 2713P-T9WD1<br>2713P-T9WD1-B <sup>(1)</sup> | 2713P-T10CD1<br>2713P-T10CD1-B <sup>(1)</sup> | 2713P-T12WD1<br>2713P-T12WD1-B <sup>(1)</sup> |
| 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 <u>PanelView 5310 Terminal and Cutout Dimensions</u> on this page. |   |   |   |   |
| Cutout dimensions, approx   | See <u>PanelView 5310 Termina</u>                                      | l and Cutout Dimensions on thi              | s page.                                     |   |   |

<sup>(1)</sup> 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.

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

<sup>(1)</sup> When mounted in a panel, the front of the bezel extends less than  $6\,\mathrm{mm}$  (0.24 in.) from the panel.

<sup>(2)</sup> 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.

<sup>(3)</sup> Where PELV is defined in IEC 61131-2.

## **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, 2428V DC output voltage, 120 W | 1        |
| 1606-XLP100E  | DIN rail power supply, 2428V DC output voltage, 100 W | 1        |
| 1606-XLP95E   | DIN rail power supply, 2428V DC output voltage, 95 W  | 1        |
| 2711P-RSACDIN | DIN rail power supply, AC-to-DC, 85265V AC, 4763 Hz   | 1        |
| 2711-TBDC     | 3-pin DC power terminal block                         | 10       |

#### **Mounting Hardware**

| Cat. No.                  | Description             | Quantity |
|---------------------------|-------------------------|----------|
| 2711P-RMCP <sup>(1)</sup> | Mounting levers (black) | 16       |

<sup>(1)</sup> 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<sup>(1)</sup>

| 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 |

<sup>(1)</sup> 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 <u>Secure Digital (SD) Cards</u> 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        |

### **Additional Resources**

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

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

You can view or download publications at <a href="https://www.rockwellautomation.com/global/literature-library/overview.page">https://www.rockwellautomation.com/global/literature-library/overview.page</a>.

**Notes:** 

## **Rockwell Automation Support**

Use the following resources to access support information.

| Technical Support Center                            | Knowledgebase Articles, How-to Videos, FAQs, Chat,<br>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<br>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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