Technical Data

AB *Allen-Bradley*

PanelView 800 Terminals

Catalog Numbers 2711R-T4T, 2711R-T7T, 2711R-T10T

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PanelView 800 Family

The PanelView™ 800 family consists of panel-mount display devices that offer keypad or touch-screen options for operator input. These graphic terminals are available in 4…10 in. display sizes. They include 800 MHz CPU processors, high-resolution displays with LED backlights, and high flash memory and dynamic memory. The built-in Ethernet and serial communication ports support a variety of networks.

PanelView 800 terminals are optimized for compatibility with Micro800® and MicroLogix™ controllers. Additional features include:

- High-resolution display with LED backlight with 65K colors
- Flexible application modes in landscape and portrait orientations
- High performance 800 MHz CPU processor with 256 MB memory
- Alarm messages that include embedded variables
- Upload/download capability for groups of data or parameter settings with recipe capability

Typical applications for PanelView terminals include:

- Adhesive labelers
- Air handling units
- Material handling machines
- Stretch wrap machines

Environmental Specifications

Table 1 - Environmental Specifications - PanelView 800 Terminals

Attribute	2711R-T4T, 2711R-T7T, 2711R-T10T
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): 0…50 °C (32…122 °F)
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -25…70 °C (-13…158 °F)
Temperature, surrounding air, max	50 °C (122 °F)

Heat dissipation
  2711R-T4T
  2711R-T7T
  2711R-T10T
	
	23 BTU/hr
	34 BTU/hr
	61 BTU/hr

Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5…95% noncondensing
Vibration	IEC 60068-2-6 (Test Fc, Operating): 2 g @ 10…500 Hz
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 15 g
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Emissions	IEC 61000-6-4
ESD immunity	IEC 61000-4-2: 4 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80…2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz 10V/m with 1 kHz sine-wave 80% AM from 2000…2700 MHz
EFT/B immunity	IEC 61000-4-4: ±2 kV @ 5 kHz on power ports ±1 kV @ 5 kHz on communication ports
Surge transient immunity	IEC 61000-4-5: ±500V line-line(DM) and ±500V line-earth(CM) on DC power ports ±1 kV line-earth(CM) on communication ports
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz…80 MHz

General Specifications

Table 2 - General Specifications - PanelView 800 Terminals

Attribute	2711R-T4T, 2711R-T7T, 2711R-T10T
Wire size	Input Power Terminal Block Stranded or solid, Cu 90 °C (194 °F) Single-Wire Gauge: 0.33…2.08 mm2 (22…14 AWG) Dual-wire Gauge: 0.33…1.31 mm2 (22…16 AWG)
Wire type	Copper
Wiring category[1]	3 — on power ports 2 — on communication ports
Enclosure type ratings	Meets NEMA/UL Type 4X (indoor) 12, 13, and IP65
North American temperature code	T4A

(1) Use this conductor category information to plan for conductor routing. See Industrial Automation Wiring and Ground Guidelines, publication 1770-4.1.

Certifications

Table 3 - Certifications - PanelView 800 Terminals

Certification[1]	2711R-T4T, 2711R-T7T, 2711R-T10T

CE	European Union 2004/108/EC EMC Directive, compliant with:
	    EN 61000-6-2; Industrial Immunity
	    EN 61000-6-4; Industrial Emissions

China RoHS	SJ/T 11364-2014, GB/T 26572-2011, SJ/Z 11388-2009
cULus	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E322657. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E334470.
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions

(1) See the Product Certification link at http://www.ab.com for Declarations of Conformity, Certificates, and other certification details.

Technical Specifications

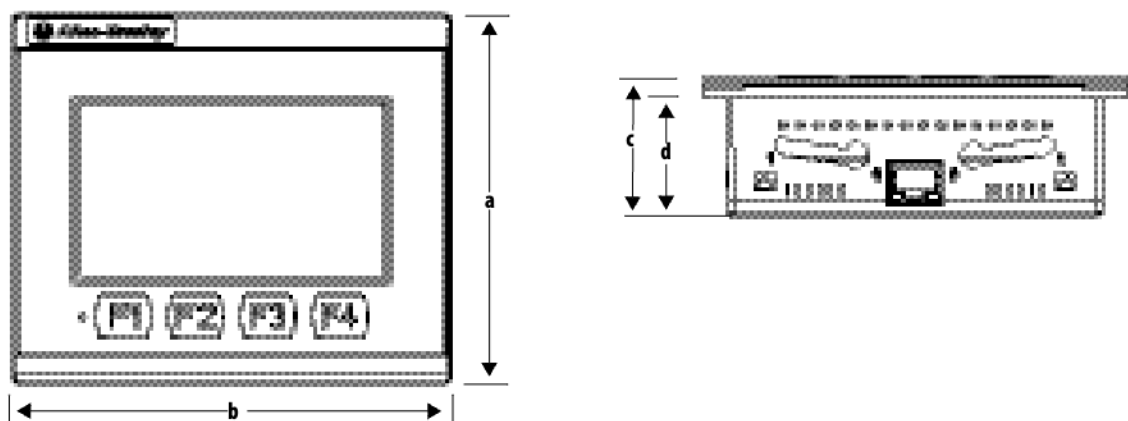Table 4 provides technical specifications for the PanelView 800 terminals.

Table 4 - Technical Specifications - PanelView 800 Terminals

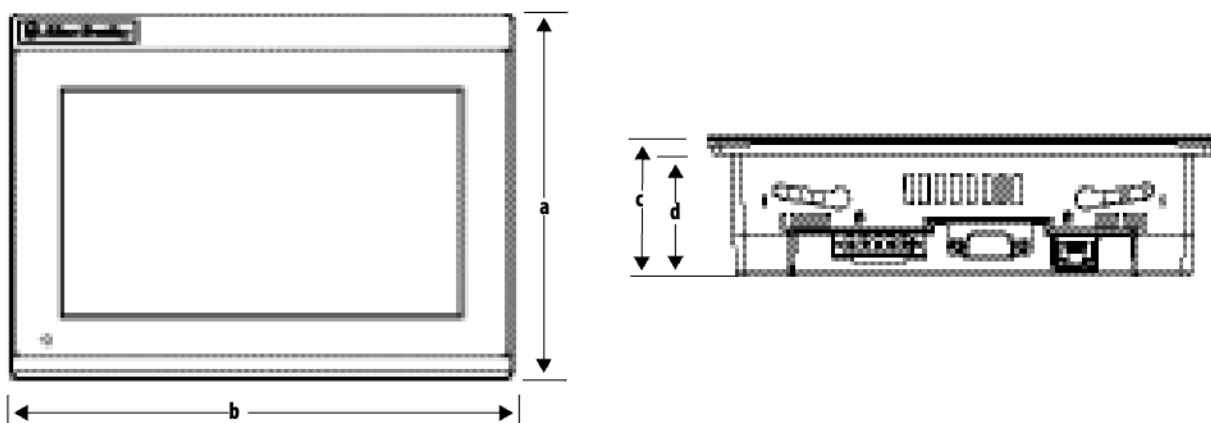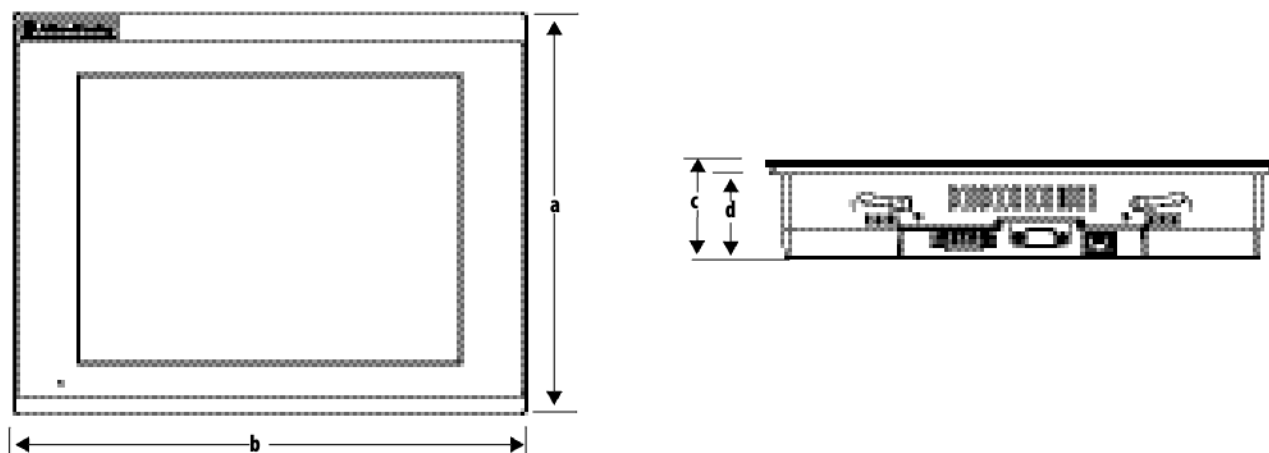| Attribute	2711R-T4T	2711R-T7T	2711R-T10T
Display type	Color transmissive TFT active matrix LCD, widescreen format		
Display size	4 in.	7 in.	10 in.
Display area (WxH)	95 x 53.9 mm (3.74 x 2.12 in.)	153.6 x 86.6 mm (6.05 x 3.41 in.)	211.2 x 158.4 mm (8.31 x 6.24 in.)
Resolution (pixels)	480 x 272	800 x 480	800 x 600
Backlight	LED		
Backlight lifespan, min	40,000 hours		
Colors	65K colors		
Operator input	Analog touch and function keys	Analog touch	
Memory card	USB port and micro-SD (Secure Digital) card — Industrial grade micro-SD cards recommended. Supports SDSC and Class 6 & Class 10 SDHC micro-SD cards, FAT32/16 formats, up to 32 GB maximum size.		
Real-time clock with battery	Yes		
Battery lifespan, min	5 years @ 25 °C (77 °F)		
Programming port	Ethernet port		
Recipe	50 recipe files		
Software	Connected Components Workbench software, release 8.0 and later		
Preferred controller	Micro800, MicroLogix		
Power Supply	24V DC		
Processor, CPU speed	800 MHz CPU		
Flash Memory (ROM) min	256 MB		
SDRAM (RAM) min	256 MB DDR		
Operating System	WINCE 6.0		
Power Consumption (max)	9 W (0.39 A @ 24V DC)	11 W (0.40 A @ 24V DC)	14 W (0.48 A @ 24V DC)
RS232/RS422/485 (isolated)	Separate RS-232 and RS422/RS485 connectors		
Ethernet 10/100 Mbps	1		
USB Host (USDB 2.0)	Yes		
MicroSD slot	Yes		
Input voltage range	18…32V DC (24V DC nom)		
Weight, approx	0.333 kg (0.73 lb)	0.651 kg (1.44 lb)	1.64 kg (3.62 lb)
Dimensions (HxWxD), approx	116 x 138 x 43 mm 4.6 x 5.4 x 1.7 in.	144 x 197 x 54 mm 5.7 x 7.8 x 2.1 in.	225 x 287 x 55 mm 8.9 x 11.3 x 2.2 in.
Panel Cutout dimensions (HxW)	99 x 119 mm 3.9 x 4.7 in.	125 x 179 mm 4.9 x 7.1 in.	206 x 269 mm 8.1 x 10.6 in.
Front Bezel Protection	IP65, NEMA 4X, 12, 13		

Product Dimensions

... (along with) illustrate the dimensions of the PanelView 800 Terminals.

Figure 1 - PanelView 800 4-inch Terminals

Figure 2 - PanelView 800 7-inch Terminals

Rockwell Automation Publication 2711R-TD001B-EN-P - March 2018

Figure 3 - PanelView 800 10-inch Terminals

Table 5 - Product Dimensions - PanelView 800 Terminals

PanelView 800 Terminal	Operator Input	Height (a) mm (in.)	Width (b) mm (in.)	Depth Overall (c) mm (in.)	Mounted Depth (d) mm (in.)	Cutout Height, approx	Cutout Width approx
4 in.	Touch screen and function keys	116 (4.6)	138 (5.4)	43 (1.7)	39 (1.5)	99 (3.9)	119 (4.7)
7 in.	Touch screen	144 (5.7)	197 (7.8)	54 (2.1)	50 (1.9)	125 (4.9)	179 (7.1)
10 in.	Touch screen	225 (8.9)	287 (11.3)	55 (2.2)	51 (2.0)	206 (8.1)	269 (10.6)

Accessories

Table 6…Table 8 list the accessories for the PanelView 800 terminals.

Table 6 - Adapter Plate Kit

Cat. No.	Description	Quantity
2711R-APK7	PanelView 800 Adapter Plate Kit for 7-Inch Terminal	1
2711R-APK10	PanelView 800 Adapter Plate Kit for 10-Inch Terminal	1

Table 7 - Terminal Blocks

Cat. No.	Description	Quantity
2711C-RJ422	5-pin connector for RS-422/485	10
2711R-TBDC	DC power terminal block	10

Table 8 - Power Supply

Cat. No.	Description	Quantity
2711P-RSACDIN	DIN-rail mount AC-to-DC power supply, 85…265V AC, 47…63 Hz	1

Software

PanelView 800 terminals are part of the Connected Components solution where the entire component family uses a single software–Connected Components Workbench™ software–for controller programming, device configuration, and data sharing. To use the Connected Components Workbench software effectively, your computer must meet the hardware requirements shown in .

Table 9 - System Requirements- PanelView 800 Terminals

Component	Minimum System Requirements	Recommended System Requirements
Processor	Intel Pentium 4 2.8 GHz or equivalent	Intel Core i5 2.4 GHz or equivalent
RAM Memory	2 GB	8 GB or more
Hard Disk Space	10 GB free	10 GB free or more
Optical Drive	DVD-ROM	DVD-ROM
Pointing Device	Any Microsoft Windows-compatible pointing device	Any Microsoft Windows-compatible pointing device

Connected Components Workbench is supported on the following operating systems:
- Microsoft Windows® 7 (32-bit and 64-bit)
- Microsoft Windows® 8 and 8.1 (32 bit and 64 bit)

  Note: Not recommended for use with the Micro810 due to USB Adapter driver. The driver will be updated in Relese 8.
- Microsoft Windows 2008® (R2)

Additionally, Internet Explorer, which is installed with the operating system, is required to view the Connected Components Workbench help.

Cables

Use these cables for connecting PanelView 800 terminals.

Table 10 - Cables for PanelView 800 Terminals

Cat. No.	Description
2711P-CBL-EX04	Ethernet crossover CAT5 cable 4.3 m (14 ft)
1747-CP3	Serial 9-pin D-shell to 9-pin D-shell null modem cable, 3 m (10 ft)
1761-CBL-PM02	Serial 9-pin D-shell to 8-pin mini DIN cable, 2 m (6.5 ft)
2711C-CBL-AB03	RS-485 5-pin to RJ45 cable
1763-NC01 series A	8-pin Mini DIN to 6-pin RS-485 terminal block

This table provides a summary of connections to Micro800 controllers.

Table 11 - Protocol

Protocol	PanelView 800 Port	Micro820	Micro830	Micro850	Micro800 Plug-in Module (2080-SERIALISOL)
Modbus (RTU) (HD)	RS-232	_[2]	1761-CBL-PM02	1761-CBL-PM02	_[2]
	RS-485[1]	_[2]	_[2]	_[2]	_[2]
Modbus unsolicited (HD)	RS-232	_[2]	1761-CBL-PM02	1761-CBL-PM02	_[2]
	RS-485[1]	_[2]	_[2]	_[2]	_[2]
Ethernet (AB CIP)	Ethernet	2711P-CBL-EX04 (CAT5 Ethernet)	N/A[3]	2711P-CBL-EX04 (CAT5 Ethernet)	N/A[3]
Modbus TCP	Ethernet	2711P-CBL-EX04 (CAT5 Ethernet)	N/A[3]	2711P-CBL-EX04 (CAT5 Ethernet)	N/A[3]
Serial (AB CIP)	RS-232	_[2]	1761-CBL-PM02	1761-CBL-PM02	_[2]

(1) RS-485 is isolated and is recommended for connecting to only one device with an isolated port.

(2) This controller includes a terminal block and requires wiring.

(3) This connectivity is not available for this controller.

This table provides a summary of connections to MicroLogix controllers.

Table 12 - Protocol

Protocol	PanelView 800 Port	MicroLogix (8-pin Mini DIN) 1000, 1100, 1400, 1200LSP, 1500LSP (Ch 0)	MicroLogix (9-pin D shell) 1500LRP (Ch 1)	MicroLogix 1100/1400 RS-485 (1763-NC01)	MicroLogix 1100, 1400 Ethernet
DF1	RS-232	1761-CBL-PM02	1747-CP3	–	–
DH-485	RS-232	1761-CBL-PM02	1747-CP3	Use AIC+ module (1761-NET-AIC) connect to port 3	–
	RS-485[1]	–	–	Belden 3106A or #9842 or equivalent	–
Modbus	RS-232	1761-CBL-PM02	1747-CP3	Use AIC+ module (1761-NET-AIC) connect to port 3	–
Ethernet (MicroLogix/ENI)2	Ethernet	–	–	–	2711P-CBL-EX04 (CAT 5 Ethernet)

(1) RS-485 is isolated and is recommended for connecting to only one device with an isolated port.

More Information

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

Resource	Description
PanelView 800 HMI Terminals Installation Instructions, publication 2711R-IN001	Provides information on how to install and configure PanelView 800 terminals.
PanelView 800 Product Profile, publication 2711R-PP001	Provides a product description and information about product features and benefits.
PanelView 800 HMI Terminals User Manual, publication 2711R-UM001	Provides information on how to install, operate, configure, and troubleshoot PanelView 800 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, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at http://www.rockwellautomation.com/literature/. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Notes:

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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