PanelView 1000e and 1400e Enhanced Operator Interface Terminals



(Catalog Numbers 2711E-T10C6, -K10C6, -T10C7, -K10C7,-T10C15, -K10C15, -K12C6L2, -T14C6, -K14C6, -T14C7, -K14C7, -T14C15, -K14C15)

Product Data





PanelView 1000e and 1400e Enhanced Operator Interface Terminals have color pixel graphics and high performance features that provide operators with an optimum view and control of any industrial manufacturing process.

PanelView 1000e, 1200e and 1400e Terminals



Catalog Number	Product Name	Description
2711E-T10C6	1000e Touch Screen Terminal	10.4 inch (26.4 cm) Flat Panel Color Display, Clip Mount, NEMA 4X (Indoor Use Only) with DH+ / Remote I/O Communications
2711E-K10C6	1000e Keypad Terminal	10.4 inch (26.4 cm) Flat Panel Color Display, Clip Mount, NEMA 4X (Indoor Use Only) with DH+ / Remote I/O Communications
2711E-T10C7	1000e Touch Screen Terminal with Release 1.25 ControlNet Communications	ControlNet-Enhanced 2711E-T10C6 Terminal
2711E-K10C7	1000e Keypad Terminal with Release 1.25 ControlNet Communications	ControlNet-Enhanced 2711E-K10C6 Terminal
2711E-T10C15	1000e Touch Screen Terminal with Release 1.5 ControlNet Communications	ControlNet-Enhanced 2711E-T10C6 Terminal
2711E-K10C15	1000e Keypad Terminal with Release 1.5 ControlNet Communications	ControlNet-Enhanced 2711E-K10C6 Terminal



2711E-K12C6L2	1200e Keypad Stainless Steel Terminal	12 inch (30.5 cm) CRT Color Display, with DH+ / Remote I/O Communications, Stud Mount, NEMA 4X (indoor use only)
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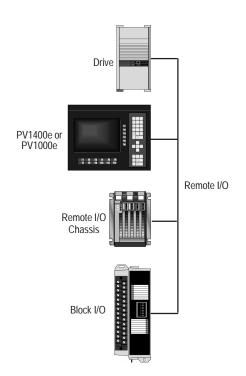
2711E-T14C6	1400e Touch Screen Terminal	14 inch (35.5 cm) CRT Color Display, with DH+ / Remote I/O Communications, Stud Mount, NEMA 4X (indoor use only)
2711E-K14C6	1400e Keypad Terminal	14 inch (35.5 cm) CRT Color Display, with DH+ / Remote I/O Communications, Stud Mount, NEMA 4X (indoor use only)
2711E-T14C7	1400e Touch Screen Terminal with Release 1.25 ControlNet Communications	ControlNet-Enhanced 2711E-T14C6 Terminal
2711E-K14C7	1400e Keypad Terminal with Release 1.25 ControlNet Communications	ControlNet-Enhanced 2711E-K14C6 Terminal
2711E-T14C15	1400e Touch Screen Terminal with Release 1.5 ControlNet Communications	ControlNet-Enhanced 2711E-T14C6 Terminal
2711E-K14C15	1400e Keypad Terminal with Release 1.5 ControlNet Communications	ControlNet-Enhanced 2711E-K14C6 Terminal

PanelView 1000e, 1200e and 1400e Configuration Software



Catalog Number	Product Name	Description
2711E-ND1	PanelBuilder 1400e Configuration Software for Windows	Includes PanelBuilder 1400e software, User Manuals
2711E-ND1DE	PanelBuilder 1400e Configuration Software for Windows German Version	Includes PanelBuilder 1400e software, User Manuals
2711E-ND1FR	PanelBuilder 1400e Configuration Software for Windows French Version	Includes PanelBuilder 1400e software, User Manuals

Enhanced Terminal Communications



PV1400e PV1400e PV1400e DH+ or ControlNet

Industrial PC

RIO Communications

Feature	PanelView 1000e/1200e/1400e
RIO Hardware	Standard Feature On All Terminals.
Valid Rack Numbers	All
Maximum Number of Racks	64
Fractional Rack Sizes	1/4, 1/2, 3/4, Full
Baud Rates	57.6K, 115.2K, ,230.4K
RIO Listen Only Mode	Both Discrete and Block Transfer Configurations Allowing Direct Access to Other RIO Points Without PLC Logic
File Transfers	RS232 Serial DH+/RIO Pass-Through Including DH+ Bridging ControlNet/RIO Pass-Through
Block Transfers	
Number of Block Transfers	64 Read or Write
Max. Block Transfer Size	64 Words per Block Transfer
Control Byte Requirement	1 Discrete Byte per Block Transfer

DH+ Communications

Feature	PanelView 1000e/1200e/1400e
DH+ Hardware	Standard Feature On All Terminals.
Connectivity	Multiple PLCs and PanelViews.
PLC Communications	Direct Data Table Access of Up to 5000 Tags and Unsolicited Messaging up to 512 words.
Baud Rates	57.6K, 115.2K, 230.4K
Performance	11 Foreground/Background Scan Classes 0 to 86,400 sec Range in 0.001 sec Intervals
File Transfers	RS-232 Serial DH+ Network Transfers Including DH+ Bridging

ControlNet Communications

Feature	PanelView 1000e/1400e
ControlNet Hardware	1784-KTCX with 2711E-NA1 or -NA2 Adapter: Standard on 2711E-T10C7, -T10C15, -K10C7, -K10C15, -T14C7, -T14C15, -K14C7, -K14C15 terminals. Optional on other 1000e and 1400e terminals.
Connectivity	Multiple PLCs and PanelViews.
PLC Communications	Direct Data Table Access of Up to 5000 Tags (Unscheduled Data Only)
Baud Rates	5Mb
Performance	11 Foreground/Background Scan Classes 0 to 86,400 sec Range in 0.001 sec Intervals
File Transfers	RS-232 Serial, ControlNet Network Transfers

Enhanced Terminal Functions



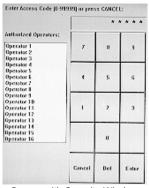
Example Graphics

		Operato Logic wi	ors allow thin PV
MultiState	Indicator	Object:	
	State 0	State 1	State 2
	LOW	MED	HIGH
Expression IF TEMP_tag 0 ELSE IF (TE 1 ELSE IF (TE 2 END IF) < 100 THE MP_tag >=	100) AND (TEN	IP_tag < 200) THEN

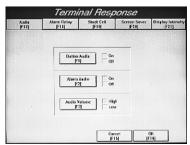
Threshold Logic Screen



Alarm History Screen



Screen with Security Window



Terminal Response Screen

Feature	Panelview 1000e/1200e/1400e
Graphics	 VGA 640 x 480 Pixels. Lines Rectangles, Ellipses, Circles, Freeform, Text. Standard Objects – 16 Color.
	 Imported graphics converted to best 16 colors from a 256 color palettebmp and .dxf file imports – near photo quality.
Objects and Symbols	List of enhanced objects and symbols begins on next page.
Object Math and Expressions	 Arithmetic (+, -, *, l) Logical (AND/OR/XOR/NOT) Comparison (==,<>, <, >, <=, >=) IfThen Else expressions may be applied to all object display components and numeric input object control tags providing numeric display calculations, indicator logic, and threshold logic within the PanelView 1000e/1200e/1400e terminals.
Alarms	 Up to 2,000 different configurable alarm messages. Three configurable alarm display windows. Time and date stamped alarms and acknowledgements. Remote operator and/or plc acknowledgements. 50 alarm tags - bit or word triggered - for multiple PLC and threshold alarming. Alarm printing, audio, and/or relay activation options. Alarm status screen including On-Off indication, trigger quantity and accumulated on-state time. Alarm history screen includes alarm trigger and alarm acknowledge, time and date stamps including scroll and print functions.
Screen Control	 Go-To-Screen buttons and selectors. PLC controlled screen change. Screen number to PLC. Configurable screen saver activation time.
Security	 Screen security pop-up window allows selective operator access Up to 16 different operator security codes are configurable.
Application Transfer	 Serial RS-232 DH+ and ControlNet Network transfers. DH+/RIO and ControlNet/RIO Pass-Through transfers.
Time and Date	 On-board battery backed clock. Time and date displays on any screen in am/pm or military (24 hour) format including leap year correction. Date and time to or from PLC is allowed.
Terminal Response	 Button and/or alarm audio activation and silence/volume control. On-board relay activated by PLC or alarm trigger. Fault indication for stuck button or touch cell time-out.
Serial Printing	 Button and/or PLC-activated screen printing. Alarm trigger and acknowledgement printing. Configurable printer handshake, auto-line and form feed.
Terminal Diagnostics	 Powerup and watchdog tests. Operator-activated battery, memory, and button tests. Automatic major and minor fault indication and shutdown. Automatic operator input error indication and acknowledgement windows.
Firmware Upgrade	Flash firmware allows serial firmware upgrades from a development computer or PC memory card.

Enhanced Objects and Symbols

Objects and functions available within PanelBuilder 1400e software make screen design easy for the developer and intuitive for the operator. Object defaults are carefully chosen to represent the most common applications. However, there is a full set of tools available to customize each object or function to particular applications.

Operator Inputs

Object	Description	Selectable Options
Momentary Push Button	Changes state (closes or opens contacts) when pressed and returns to initial state when released.	 Normally open or normally closed Separate indicator tag, text and graphics for each state label.
Latched Push Button	Changes state (closes or opens contacts) when pressed and remains in this state when released. Returns to initial state when unlatched by a handshake bit in the controller.	 State values Handshake tag Separate indicator tag, text and graphics for each state label.
Maintained Push Button	Changes state (closes or opens contacts) when pressed and remains in this state until pressed again. Press and release button again to return to initial state.	Unique state valuesSeparate indicator tag, text and graphics for each state label.
Interlocked Push Button	Used together in a group – only one is on at a time. When one is pressed, the previous one is cancelled.	Tag initial value Text and graphic attributes allowed.
Multi-Sate Push Button	Changes state each time button is pressed. Returns to initial state after sequencing through all states. Each state can have unique value, text, graphic or other format options.	 2 to 255 states Unique value for each state to be sent to controller Initial powerup state Indicator state tag Auto-repeat rate and start delay
Control List Selector without Enter Button	List of controls from which an operator makes a selection. Value of highlighted selection is sent to controller as soon as selected. PUMP CONTROLS Pump 1 ON Pump 2 ON Pump 3 ON Pump 4 ON Cursor Up Cursor Down	 1 to 24 list entries Cursor Up/Down keys with each auto-repeat Unique value for each state to be sent to controller Initial powerup selection Wrap around at top/bottom of list
Control List Selector with Enter Button	Same functionality as Control List Selector without Enter button except value of highlighted selection is not sent to controller until Enter button is pressed. MOTOR CONTROLS Motor 1 ON Motor 2 ON Motor 3 ON Motor 4 ON Cursor Up Down	 1 to 24 list entries Cursor Up/Down/Enter keys with each auto-repeat Unique value for each state sent to controller Initial powerup selection Enter key handshake
Set-Bit Cursor Point (Keypad terminals only)	Use to select from an array of items such as text or graphic objects placed anywhere on the screen. Each cursor point is an arrow (pointer) with a unique PLC input address. Home and arrow keys are used to make selections. Calibrate Robot #1 Calibrate Robot #2 Calibrate Robot #3 Calibrate Robot #4	Optional text box associated with cursor point
Numeric Keypad Enable Button (Keypad terminals only)	When pressed, enables the numeric keypad and opens the scratchpad for data entry. Enter New Value or Press CANCEL > 78_ Change SP [F18]	 Fixed, keypad or PLC controlled decimal point Retain or remove scratchpad after Enter Enter key handshake Write tag or expression Supports floating point data input

Operator Inputs

Object		Description	Selectable Options
Numeric Keypad (Touch Screen terminals only)	000	When placed on a screen, allows data entry to the PLC from a touch screen terminal. T8.95	 Small or large size Fixed, keypad or PLC controlled decimal point Enter key handshake Write tag or expression Supports floating point data input
Scrolling List Object		Enhanced Control List Selector / List indicator. Can contain multiple types of lists, grouped together, to control and monitor sequential operations. Reduces controller ladder logic and addressing typically needed to display and edit large amounts of data. AUTOMOBILE LUXURY OPTION ASSEMBLY OPTION STATION OPTION STATION	 Local Message display, Multi-State Indicator or Numeric Display lists 2 to 999 list entries in each list Initial powerup selection Up/Down cursor buttons Page Up/Down buttons Home/End/Enter buttons Auto and manual modes
Numeric Input Cursor Point (Keypad Terminals only)		Use to edit an array of numbers on the screen. Each numeric cursor point consists of an arrow (pointer) and a display area. When selected, the scratchpad opens and enables the numeric keypad for data entry. Home and arrow keys are used to make the selections. Enter New Value or Press CANCEL > _ DAILY PRODUCTION SCHEDULE Station #1 Station #2 Station #3 Part # 1111 1111 3333 Qty. 500 500 0	 Fixed, keypad or PLC controlled decimal point Left fill with blanks or zeroes Max/min values Number of digits (1-16) Read or write displayed value tag Change value with raise or lower buttons Auto-repeat rate, start delay and amount per inc/dec Enter key handshake Write tag or expression Supports floating point data input
Increment Value Button		When pressed, the button's control tag is incremented by the specified amount.	 Auto-repeat rate, start delay and amount per increment Maximum value Optional display field (1-16 digits) Left fill with blanks or zeroes
Decrement Value Button	▼	When pressed, the button's control tag is decremented by the specified amount.	 Auto-repeat rate, start delay and amount per increment Minimum value Optional display field (1-16 digits) Left fill with blanks or zeroes
ASCII Input		Allows the operator to send an alphanumeric string (up to 82 characters) to a PLC tag.	 small or large size Fill characters Number of scratchpad characters (1-64) Number of characters to PLC (1-82) Enter key handshake tag

Display Objects

Object		Description	Selectable Options	
Multistate Indicator	웜	Notifies operator of a specific condition by displaying 1 of 255 possible states. Each state can have unique color, text, graphic or other format options. Can also be used to show simple animation such as flow in a pipe or position of a part. Motor #1 ON	 1 to 255 possible states Unique state values Can apply graphics to indicator Indicator tag or expression 	
List Indicator	憎	Notifies operator of current state by highlighting an entry in a list containing all possible states. PART STATUS Part at Load Sta. Part at Sta. 1 Part at Sta. 2 Part at Unload Sta.	■ 1 to 24 possible list entries	
Numeric Data Display	123	Displays a numeric variable stored at a controller address.	 1 to 16 digits left fill with blanks or zeroes Scaling (y=mx+b) Polarity (+/-) Fixed or PLC controlled decimal point Floating point number display Indicator tag or expression 	
ASCII Message Display		Use to display ASCII data stored in the controller, such as bar code information Line Scan From Bar Code 7003141690	 Up to 82 characters ESC commands such as Clear Display, CR, LF, Reverse Video, Clear to End of Display 	
Bar Graphs		Monitors control data, such as temperature or fluid levels, in an easy to understand graphic. Stack or cascade bar graphs to create PID templates or multi-color bar graphs. TIC-53 Mixer 1 Temp100	 Vertical or horizontal Fill from top, bottom, left or right Min / Max range of values (-2,147,483,648 to 2,147,483,647) Border Indicator tag or expression 	
Trend Graph	M	Plots variable data over time. 188 58 89:08:98 AM	 Time/value, line and symbol plots Four individually configured pens per object-tags or expression Sample rate 0.25 to 8,4600 seconds 1/4 to full screen plots On screen or background screen plotting 	
Local Message Display		Provides information to the operator by displaying a triggered message from the "local message list" on the currently displayed screen. Multiple local message display objects can be placed on a screen. System Status: OK	 Single or multiple lines Up to 256 characters per message Up to 2,000 messages in the "Local Message List" Display tag or expression 	

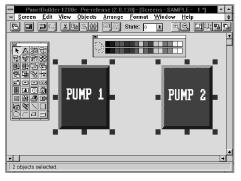
Display Objects

Object	Description	Selectable Options	
Information Window	Provides information to the operator by displaying a triggered message from the "Information Message List". The message will be displayed no matter which screen is displayed. Parts Low at Station #3 Clear	 Up to 144 characters per message Up to 2,000 messages in the "Local Message List" Operator or PLC clear Display tag or expression 	
Time and Date Displays	Displays the current time and/or date anywhere on the screen. 03:34:26 PM 09/15/97	 12 Hour (AM/PM) or 24 Hour format Option to display seconds MDY, DMY or YMD date display 2 or 4 digit year display Optional leading zeroes 	
Go-To-Screen Button	When pressed, the terminal displays the specified screen.	■ Text and graphic attributes allowed	
Return-To-Previous Screen Button	When pressed, the terminal returns the display to the previous screen.	■ Text and graphic attributes allowed	
Screen List Selector	List of screens from which an operator makes a selection. Selection cursor is moved using the object's Cursor Up, Down and Enter buttons. MAIN MENU Screen 2 PID Screen 3 Pump Controls Screen 4 Production Report Screen 5 Keypad Alarm History Cursor Down Enter	 2 to 24 screen list items Enable/Disable cursor up/down buttons 	
Screen Print Button	When pressed, a dithered monochrome image of the displayed screen is sent to the printer.	■ Text and graphic attributes allowed	
Screen Select Keypad- Enable Button (Keypad Terminals Only)	When pressed, enables the numeric keypad and displays a scratchpad for entering the screen number to be displayed.		
Screen Select Keypad (Touch Screen Terminals Only)	A numeric keypad for entering the screen number to be displayed.	■ small or large size	

Graphics

Object	Description	Selectable Options
Text A	Creates text for screen background text or object labels.	Color, size, align, underline, blink
Bitmap Image	Imports bitmap images from other programs. Place bitmaps inside objects or use as background objects. Bitmaps can also be exported from PanelBuilder 1400e. Standard ISA/DIN symbols and arrows are included in PanelBuilder 1400e's graphic image library.	 Max size = 640 x 480 pixels Imported graphics converted to best 16 colors from 256 color palette for near photo quality. Monochrome bitmaps support color modification within PanelBuilder.
DXF Image	Imports DXF images from other programs. Place DXF images inside objects or use as background objects.	 Maximum size = 640 x 480 pixels Imported graphics converted to best 16 colors from 256 color palette for near photo quality.
Line	Creates lines for emphasis, to divide the screen, connect symbols, or represent physical devices like pipes or conveyors.	 Any direction Solid, four widths Dash, Dot, Dash-Dot, Dash-Dot-Dot
Shapes	Creates any size and shape ellipse, arc, wedge or rectangle. Wedges or pie shapes are partial ellipses or closed arcs.	Hollow or solid fill patternChange line style or width
Panel	Panels are rectangular backdrops onto which other objects can be placed. These are used for visual emphasis and organization.	Hollow or solid fill patternChange border style
Symbols	Set of 32 standard ISA and 139 DIN symbols to use as background graphics or place inside other objects.	 1 to 255 possible states per symbol Electrical Mechanical Storage vessels
Scale E ₂	Creates lines with divisions for measurement on bar graphs, trend graphs or other indicator objects.	Automatic line spacing when sized

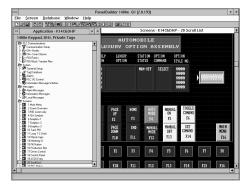
Enhanced Configuration Software



Panelbuilder 1400e configuration software makes creating screens for Panelview 1000e, 1200e and 1400e terminals quick and easy.

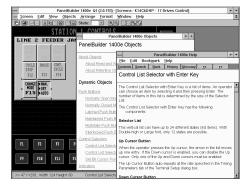
Windows Editing

PanelBuilder 1400e takes advantage of Microsoft Windows® menus, dialogs, and graphical editing tools. Features include zoom, auto alignment, multiple undo/redo, clipboard functions, cut/copy/paste, tool bars and on-line help. Beyond Windows compatibility PanelBuilder 1400e also features a common look and feel with other Allen-Bradley software products such as PanelBuilder 1200 for Windows and $RSView^{TM}$.



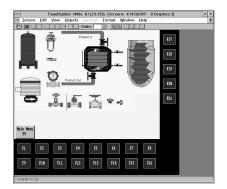
Application Organizer

The Panelbuilder 1400e software application organizer provides ready access to all screen, message and terminal configuration editors.



On-Line Help

Context-sensitive, on-line help is available throughout PanelBuilder 1400e by choosing Help buttons in dialog boxes, or by pressing F1.



WYSIWYG Editing

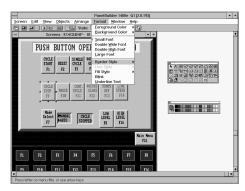
PanelBuilder 1400e takes the guesswork out of creating screens. Application screens and their objects – including graphics, ISA symbols, lines, arcs and text – appear on the development computer exactly as they will appear when downloaded to a PanelView 1000e, 1200e or 1400e terminal.

And, when creating keypad applications, choosing to show the function keys on the development screen makes it easy to align objects to function keys.



Concurrent Application Editing

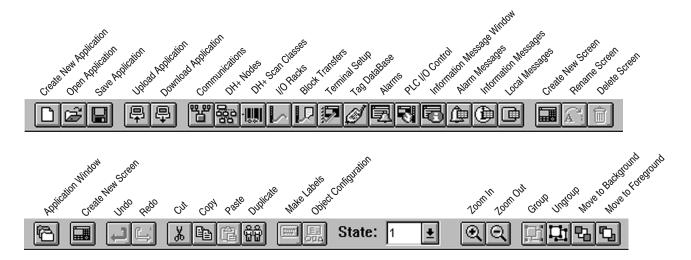
PanelBuilder 1400e software enables users to have multiple applications, screens and message editors open at the same time. This time-saving feature uses the clipboard to copy objects and messages between screens and applications.



Object Selection and Configuration Tools

Dynamic control objects, indicators and graphic objects are available from toolboxes for easy selection so operators rarely need to use menus. To change an object's color, simply click on the color palette. Other tools are available to enhance the appearance of objects on the screens, such as border styles, fill patterns, text, panels and wallpaper. Dialog boxes simplify assigning object attributes.

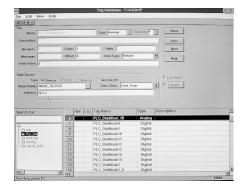
Formatting and editing features are also available from toolbars, allowing quick screen configurations.





Graphic Image Import

Screens can be enhanced by importing bitmaps and DXF images from other applications like drawing packages or digitized photographs. Images can be applied to wallpaper, graphic objects, symbols or object labels. Imported images must be no larger than 640 x 480 pixel resolution. Full color imports are automatically converted to best 16 colors from a 256 color palette providing near photo quality. PanelBuilder 1400e allows sizing of imported graphics within the screen editor.



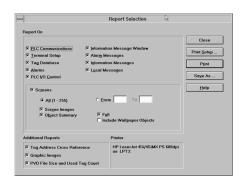
Tag Database

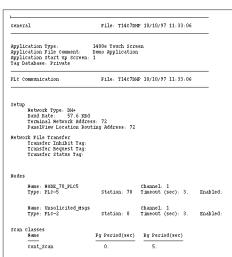
A tag database consists of records called tags. A tag is similar to a symbol in PLC programming terminology. The tag database can be created and modified within the PanelBuilder 1400e tag editor or in a spread sheet program like Excel $^{\text{TM}}$. Attributes are specified for each record in the tag database.

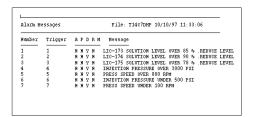
Tag Attribute	Description	
Tag Type	Analog, Digital, ASCII String or Block	
Tag Name Unique name identifying tag address		
Tag Description Text describing the tag		
Data Source	Device or Remote I/O	
Scale (m) and Offset (b)	y = (mx) + b; $(x = raw PLC data)$	
Initial Value	Written to the PLC when application first executes	
Length String	Length of "string" type tag	
Address	PLC address	
Scan Class	Scan class A-K	

Tags offer numerous development advantages.

- Tag definitions eliminate the need to duplicate PLC addresses.
 Once tags are defined, the tag can be specified anywhere to reference the address.
- Allows association of a symbolic name (ie. the tag's name) with a PLC address.
- Ease in changing all instances of an address by just editing the tag.
- If creating more than one application that will be using the same PLC addresses, one tag database can be created and shared between the different applications.
- Enables sharing tag information with other PanelView 1400e applications and importing of tags from other Allen-Bradley and Rockwell software programs such as 6200, A.I. Series, Logic 5 and RSView.







Terminal Setup	File: T1407	OHP 10/10/97 11:33:06
:lobal		
Application Type:	1400e To	ich Screen
Application Start		
Application File C		
Target Firmware Ve	rsion: 03.00 and	d up
Fiming Parameters		
Push Button Hold T	ime: 2!	50 msec
Remote Alarm Opera	tion Hold Time: 2!	50 msec
Remote Alarm Ack C	ontrol Hold Time: 2!	50 msec
Remote Alarm Contr	ol Delay: 20	00 msec
Enter Key Handshak		seconds
Enter Key Control:		00 msec
Information Window	Ack Hold Time: 3	seconds
Auto-Repeat Start :	Delay: 40	00 msec
Auto-Repeat Rate:	4	

Self Documenting

Once an application file has been created, PanelBuilder 1400e software can provide reports that can be printed or saved as ASCII text files to document the various screens, functions and PLC addresses that have been configured. Report files can be opened and edited by a spreadsheet editor for customization.

Reports can include:

- PLC Communications
- Tag Database
- Tag Address Cross Reference
- Alarm, Information and Local Messages
- Graphic Images
- Object Summary

- Terminal Setup
- PLC I/O Control Options
- Alarm Window Configuration
- Information Window Configuration
- Screen Images
- PVD File Size and Used Tag Count

Hardware Specifications

Mechanical

Specification	PanelView 1000e	PanelView 1200e	PanelView 1400e
Display	 10.4 inch (26.4 cm) diagonal, Color, 640 x 480 Pixel, TFT Active Matrix Display with Screen Saver Function. Also has Adjustable and Replaceable Backlight. 	 12 inch (30.5 cm) diagonal, Color, 640 x 480 Pixel, CRT Display with Screen Saver Function 	14 inch (35.5 cm) diagonal, Color 640 x 480 Pixel, CRT Display with Screen Saver Function
	 Analog Resistive Touch Screen with Clear, Hard-Coated, Scratch Resistant Polyester Membrane over Chemically Strengthened Glass 	 Resistive Matrix Touch Screen with Water-Clear, Hard-Coated, Scratch Resistant Polyester over Chemically Strengthened Glass 	 Analog Resistive Touch Screen with 95% Gloss (Anti-Glare), Hard-Coated, Scratch Resistant Polyester Membrane over Chemically Strengthened Glass
Touch Screen	 Up to 192 Touch Cell Areas May Be Defined as Small as 40 x 40 Pixels 	■ 120 Touch cell Areas (40 x 64 pixels)	 Up to 192 Touch Cell Areas May Be Defined as Small as 40 x 40 Pixels
	Actuation Force: 2.5 to 3.5 oz (71 to 100 grams)	Actuation Force: 2.5 to 3.5 oz (71 to 100 grams)	Actuation Force: 2.5 to 3.0 oz (71 to 85 grams)
-	Actuation Rating: 1,000,000 Presses	Actuation Rating: 1,000,000 Presses	Actuation Rating: 1,000,000 Presses
Key Panel	 Sealed, Stainless Steel Dome Membrane Switches with Tactile Feedback, Bezel Mounted, Protected with Hard-Coated, Scratch Resistant Polyester Surface Display Window with Clear, Hard-Coated, Scratch Resistant Polyester over Chemically Strengthened Glass Actuation Force: 1 lb (0.455 kg) Actuation Rating: 2,000,000 Presses Keys: 21 User Definable, Numeric Entry, Cursor Control, Other Special Functions 	 Sealed, Stainless Steel Dome Membrane Switches with Tactile Feedback, Bezel Mounted, Protected with Hard-Coated, Scratch Resistant Polyester Surface Display Window includes a water clear polyester over chemically strengthened glass. Actuation Force: 1 lb (0.455 kg) Actuation Rating: 2,000,000 Presses Keys: 21 User Definable, Numeric Entry, Cursor Control, Other Special Functions 	 Sealed, Stainless Steel Dome Membrane Switches with Tactile Feedback, Bezel Mounted, Protected with Hard-Coated, Scratch Resistant Polyester Surface Display Window with 95% Gloss (Anti-Glare), Hard-Coated, Scratch Resistant Polyester over Chemically Strengthened Glass Actuation Force: 1 lb (0.455 kg) Actuation Rating: 2,000,000 Presses Keys: 21 User Definable, Numeric Entry, Cursor Control, Other Special Functions
Bezel	Reinforced Plastic	 Brushed 304 Stainless Steel with #4 Finish Over Cast Aluminum Bezel 	Cast Aluminum with Black Powder Coating
Approximate Weight	Touch Screen: 11.3 lbs (5.1 kg)Keypad: 11.6 lbs (5.3 kg)	Touch Screen: 32.6 lbs (14.8 kg)Keypad: 33.8 lbs (15.3 kg)	Touch Screen: 38.7 lbs (17.6 kg)Keypad: 40.1 lbs (18.2 kg)

Electrical

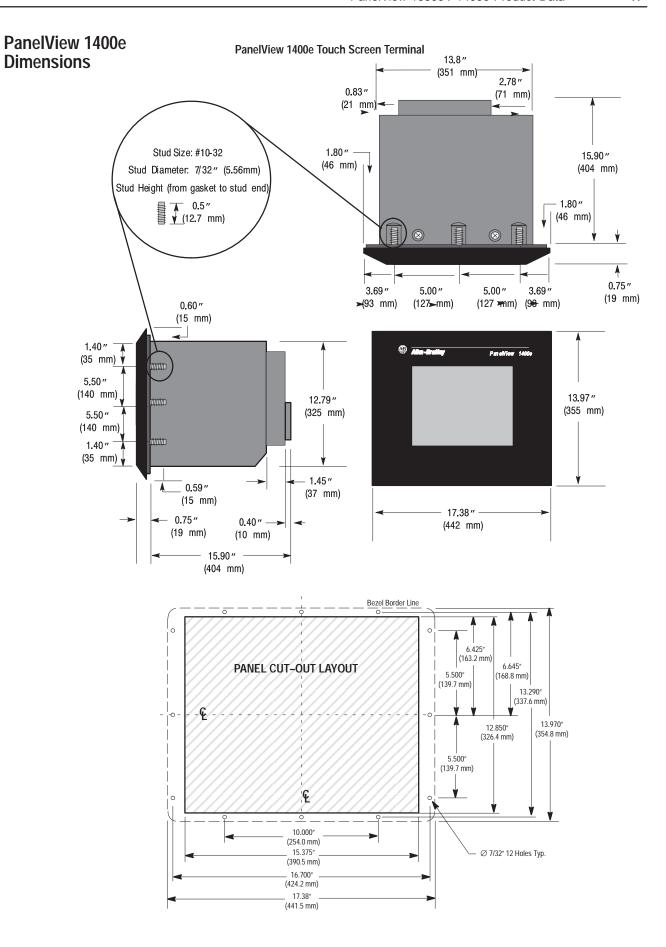
Specification	PanelView 1000e	PanelView 1200e	PanelView 1400e
Input Voltage Requirement	90-132 or 180-264V AC Auto-Select Switching Power Supply 47-63 Hz	■ 90-132 or 180-264V AC Auto-Select Switching Power Supply 47-63 Hz	90-132 or 180-264V AC Auto-Select Switching Power Supply 47-63 Hz
Power Consumption	 60VA typical, 90VA maximum 45W typical, 70W maximum 	 160VA typical, 220VA maximum 65W typical, 90W maximum CRT Degauss on Powerup / Midnight 5.5 Amps @ 115V for 400 ms 11 Amps @240V for 400 ms 	 180VA typical, 240VA maximum 75W typical, 100W maximum CRT Degauss on Powerup 5.5 Amps @ 115V for 400 ms 11 Amps @240V for 400 ms
Alarm Relay	■ Form-C Contact 24V AC, 1 Amp. Continuous (max) 24V DC, 1 Amp. Continuous (max)	■ Form-C Contact 250V AC, 8 Amp. Continuous (max) 30V DC, 8 Amp. Continuous (max)	■ Form-C Contact 250V AC, 8 Amp. Continuous (max) 30V DC, 8 Amp. Continuous (max)
Battery	 Permanent Lithium Battery ≤ 0.5 grams Lithium Life Expectancy: 7.7 Years @ 30°C (86°F) 	 Permanent Lithium Battery ≤ 1 gram Lithium Life Expectancy: >10 Years @ 30°C (86°F) 	 Permanent Lithium Battery ≤ 1 gram Lithium Life Expectancy: >10 Years @ 30°C (86°F)
User Memory	2.25 MB On-Board FlashPC memory card option up to 16MB	256 KB On-Board FlashPC memory card option up to 16MB	256 KB On-Board FlashPC memory card option up to 16MB
Time Clock	 Battery Backed, AM/PM or 24 hour Display with Day of Week and Leap Year Corrected Date Accuracy: ±7 minutes per month @ 50°C (122°F) 	 Battery Backed, AM/PM or 24 hour Display with Day of Week and Leap Year Corrected Date Accuracy: ±7 minutes per month @ 50°C (122°F) 	 Battery Backed, AM/PM or 24 hour Display with Day of Week and Leap Year Corrected Date Accuracy: ±7 minutes per month @ 50°C (122°F)

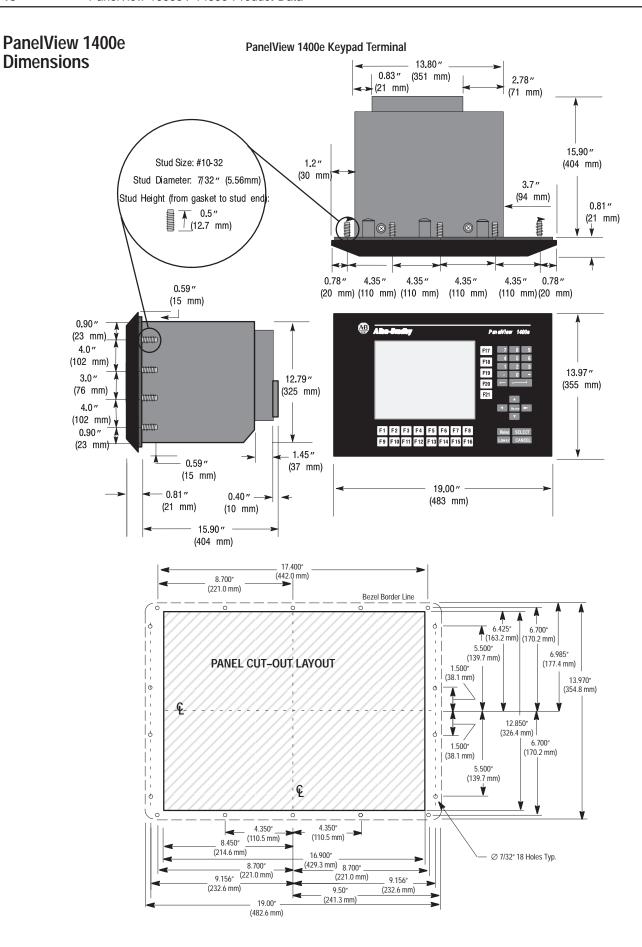
Environmental

Specification	PanelView 1000e	PanelView 1200e	PanelView 1400e
Operating Temperature	• 0 to 50°C (32 to 122°F)	• 0 to 50°C (32 to 122°F)	• 0 to 50°C (32 to 122°F)
Storage Temperature	25 to 60°C (-13 to 140°F)	40 to 85°C (-40 to 185°F)	-40 to 85°C (-40 to 185°F)
Relative Operating Humidity	 95% Humidity (noncondensing) © 50°C (122°F) 	 95% Humidity (noncondensing) @ 30°C (86°F) 	• 95% Humidity (noncondensing) @ 30°C (86°F)
Heat Generation	154 BTU/Hour Typical290 BTU/Hour Maximum	222 BTU/Hour Typical307 BTU/Hour Maximum	256 BTU/Hour Typical341 BTU/Hour Maximum
Maximum Altitude	Operating: 6500 FeetNon-Operating: 40,000 Feet	Operating: 10,000 FeetNon-Operating: 40,000 Feet	Operating: 10,000 FeetNon-Operating: 40,000 Feet
Shock (Operating)	15G Peak Acceleration	15G Peak Acceleration	15G Peak Acceleration
Vibration (Operating)	 5 to 57 Hz: 0.012 inch (.3 mm) peak-to-peak displacement. 58 to 150 Hz: 2G Peak Acceleration 	 5 to 57 Hz: 0.006 inch (.15 mm) peak-to-peak displacement. 58 to 2000 Hz: 1G Peak Acceleration 	 5 to 57 Hz: 0.006 inch (.15 mm) peak-to-peak displacement. 58 to 2000 Hz: 1G Peak Acceleration

Certifications

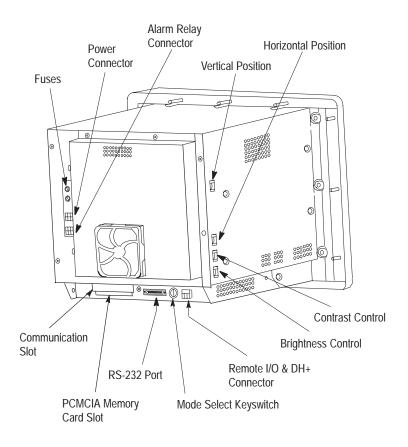
Standard	PanelView 1000e	PanelView 1200e	PanelView 1400e
Safety	 UL 508 CUL 22.2 No. 142 Listed Through UL program (CSA Equivalent) EU Low Voltage Directive: 73/23/EEC w/93/68/EEC Low Voltage Amendment from EN61010-1:1995 Standard 	UL 508 CUL 22.2 No. 142 Listed Through UL program (CSA Equivalent)	 UL 508 CUL 22.2 No. 142 Listed Through UL program (CSA Equivalent) EU Low Voltage Directive: 73/23/EEC w/93/68/EEC Low Voltage Amendment from EN61010-1:1995 Standard
EMC	 European Union EMC Directive: 89/336/EEC using: EN 50081-2:1993 and EN 50082-2:1995 ICES 003 (Industry Canada) Class A FCC Part 15, Subpart B, Class A 	 ICES 003 (Industry Canada) Class A FCC Part 15, Subpart B, Class A VDE-0871 Class A 	 European Union EMC Directive: 89/336/EEC using: EN 50081-2:1993 and EN 50082-2:1995 ICES 003 (Industry Canada) Class A FCC Part 15, Subpart B, Class A
Environmental	 UL 50, 1992, ENCL 4X,12 (Indoor Use Only) CSA C22-2 No. 94-M91, ENCL 4X, 12 (Indoor Use Only) NEMA 4X, 12 (Indoor Use Only) IEC 529, IP66 (Indoor use Only) 	 UL 50, 1992, ENCL 4X,12, 13 (Indoor Use Only) CSA C22-2 No. 94-M91, ENCL 4X, 12, 13 (Indoor Use Only) NEMA 4X, 12, 13 (Indoor Use Only) 	 UL 50, 1992, ENCL 4X,12, 13 (Indoor Use Only) CSA C22-2 No. 94-M91, ENCL 4X, 12, 13 (Indoor Use Only) NEMA 4X, 12, 13 (Indoor Use Only) IEC 529, IP65 (Indoor use Only)





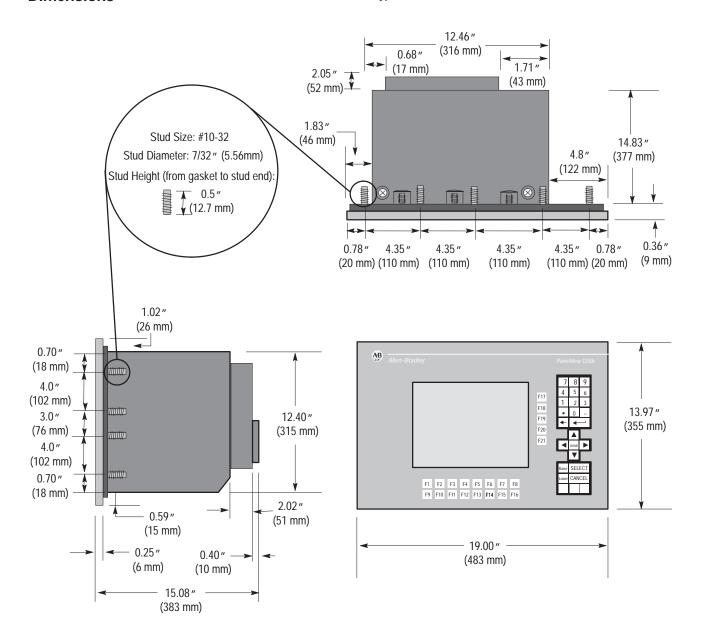
PanelView 1400e Mounting Details

PanelView 1400e Rear View



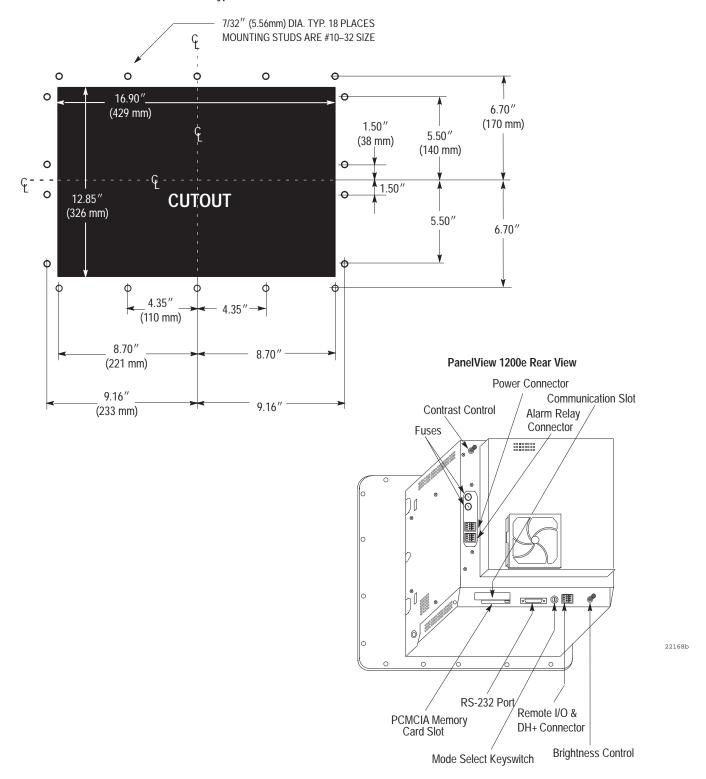
PanelView 1200e Dimensions

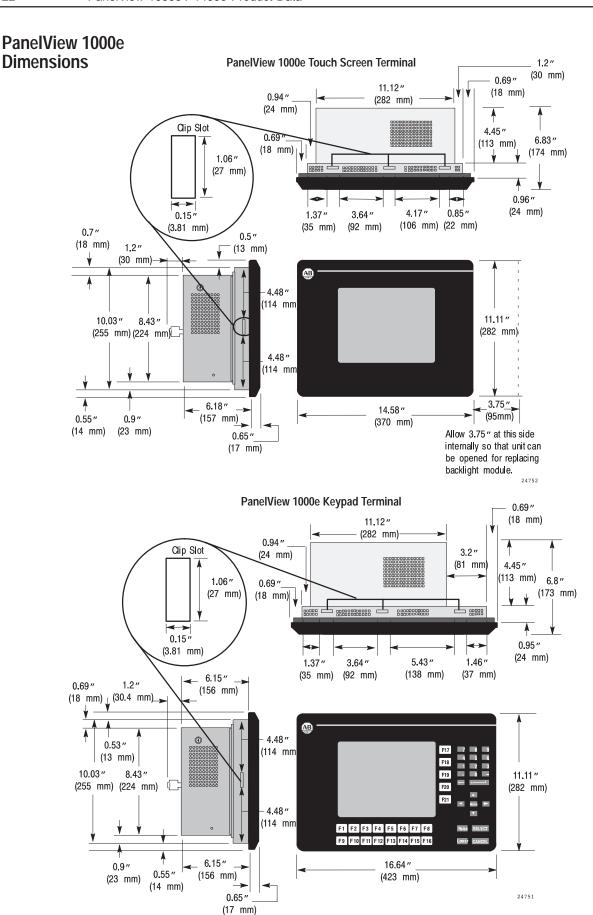
PanelView 1200e Keypad Terminal



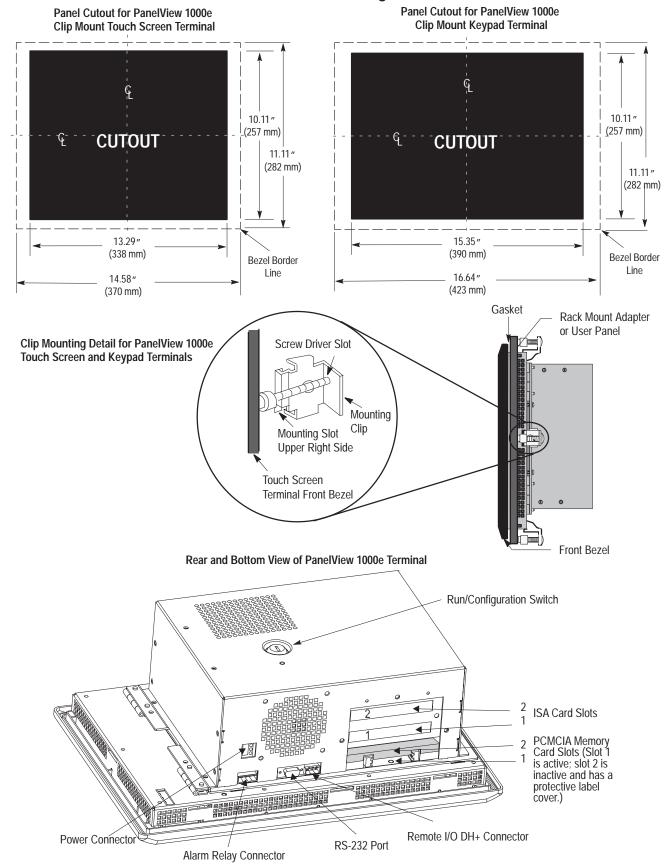
PanelView 1200e Cutout Dimensions and Mounting Details

PanelView 1200e Keypad Terminal





PanelView 1000e Cutout Dimensions and Mounting Details



RS-232 Upload/Download Cable

PanelView 1000e/1200e/1400e

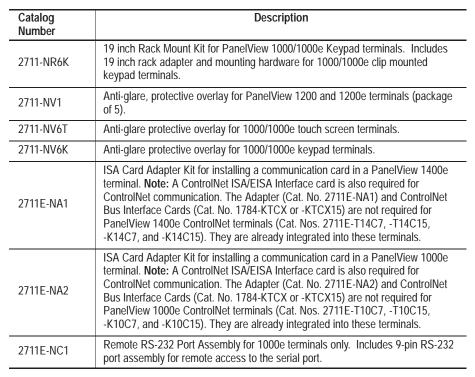
PanelView 1000e, 1200e and 1400e Terminal Accessories

Catalog Number	Description
2711-NC1	Upload/download cable for PanelView 1400e, 1200e, and 1200 terminals includes 9 pin to 25 pin RS232 serial cable to transfer between the terminal and development computer. This cable is 3.1 m (10 ft.) long.
2711-NC2	Remote keyswitch and RS-232 port assembly, with 3.1 m (10 ft.) long cable, for PanelView 1400e, 1200e, and 1200 terminals.
2706-NC13	Upload/Download Cable for 1000e terminals. Includes 9-pin RS-232 serial cable to transfer files between the terminal and the development computer. This cable is 10 ft (3.1 m) long. Also used for 550/600/900/1000/1400 terminals.
2711-NC13	Upload/Download Cable for 1000e terminals. Includes 9-pin RS-232 serial cable to transfer files between the terminal and the development computer. This cable is 16.4 ft (5 m) long. Also used for 550/600/900/1000/1400 terminals.
2711-NC14	Upload/Download Cable for 1000e terminals. Includes 9-pin RS-232 serial cable to transfer files between the terminal and the development computer. This cable is 32.7 ft (10 m) long. Also used for 550/600/900/1000/1400 terminals.
2711-NK1	Replacement Keypad Faceplate for PanelView 1200 Terminals, Series D or later (for Cat. No. 2711-KA1, -KC1 only).
2711-NM1	EPROM Memory Chip Set is for PanelView 1200 Terminals, Series C and earlier used to back up application memory. Download configuration files to EPROM programmer using PanelBuilder 1200 Development Software.
	EEPROM Memory Chip Sets for PanelView 1200 Terminals only When you install this option in the PanelView 1200 Terminal, the configuration file is automatically loaded into the EEPROMs when downloaded from the
2711-NM2	development computer. Cat. No. 2711-NM2 (containing 2 EEPROMs) is for PanelView 1200 Terminals, Series C or earlier, and is used to increase application memory from 64K to 128K
2711-NM3	or to back up application memory. Cat. No. 2711-NM3 (containing 1 EEPROM) is for PanelView 1200 Terminals, Series D or E, and is used to increase application memory from 64K to 128K or
2711-NM4	to back up application memory. Cat. No. 2711-NM4 is for PanelView 1200 Terminals, Series F, and is used for memory backup only (128K).
2711-NM12	Mbyte PCMCIA flash memory card for PanelView 1000e, 1200e, and 1400e Terminals for additional application memory.
2711-NM13	2 Mbyte PCMCIA flash memory card for PanelView 1000e, 1200e, and 1400e Terminals for additional application memory.
2711-NM14	4 Mbyte PCMCIA flash memory card for PanelView 1000e, 1200e, and 1400e Terminals for additional application memory.
2711-NM15	8 Mbyte PCMCIA memory card for PanelView 1000e, 1200e, and 1400e terminals for additional application memory.
2711-NR1	19 inch Rack Mount Kit for PanelView 1200 and 1200e touch screen terminals (for Cat. Nos. 2711-TA1, -TC1, TC4, 2711E-T12C6, and 2711E-T12C4).
2711-NR4	19 inch Rack Mount Kit for PanelView 1400e touch screen terminals.
2711-NR5T	Adapter to mount a PanelView 1000/1000e Touch Screen terminal in the panel cutout for a PanelView 1200 Touch Screen terminal.
2711-NR5K	Adapter to mount a PanelView 1000/1000e Keypad terminal in the panel cutout for a PanelView 1200 Keypad terminal.
2711-NR6T	19 inch Rack Mount Kit for PanelView 1000/1000e Touch Screen terminals. Includes 19 inch rack adapter and mounting hardware for 1000/1000e clip mounted touch screen terminals.



Memory Cards

PanelView 1000e, 1200e and 1400e Terminal Accessories (Continued)





PanelView 1000e,1200e and 1400e Terminal Replacement Kits

Catalog Number	Description
2711-NP2	Mounting Clips for PanelView 600/900/1000/1000e Terminals.
2711-NF1	Function Key Legend Strips for PanelView 1000e Keypad Terminals.
6189-NL2	Backlight Replacement Kit for PanelView 1000e Terminals and 6189 Industrial Computers.
2711E-NK3	Stainless Steel Keypad Replacement Kit for PanelView 1200 (Series D and Later) and 1200e Keypad Terminals.
2711E-NK5	Keypad Replacement Kit for PanelView 1400e Terminals.
2711-NT1	Touch Screen Replacement Kit for PanelView 1200 Series D and later (Catalog No. 2711-TA1, -TC1, -TA4, -TC4) and for PanelView 1200e Terminals (Catalog No. 2711E-T12C6, -T12C4).
2711-NT1C	Touch Screen Replacement Kit for PanelView 1200 Terminals, Series C or earlier, (for Cat. Nos. 2711-TA1, -TC1 only).
2711-NT2	Analog Touch Screen Replacement Kit for PanelView 1400e.
46715-414-01	Spare Mode Select Keys for PanelView 1000e/1200/1200e/1400e Terminals.
46715-416-01	Clip Mounting Hardware for PanelView 1200 and 1200e Touch Screen Terminals.
46715-418-01	Replacement Keyswitch Assembly for PanelView 1200/1200e/1400e Terminals.
46715-419-01	Blank Keypad Legend Inserts for PanelView 1200/1200e Keypad Terminals. Note: Not for 2711E-K12C6L2.
22112-046-03	Remote I/O connector for PanelView 1000e/1200/1200e/1400e Terminals.

Notes

Notes



Rockwell Automation helps its customers receive a superior return on their investment by bringing together leading brands in industrial automation, creating a broad spectrum of easy-to-integrate products. These are supported by local technical resources available worldwide, a global network of system solutions providers, and the advanced technology resources of Rockwell.

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