

PanelView 1000e and 1400e Enhanced Operator Interface Terminals



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

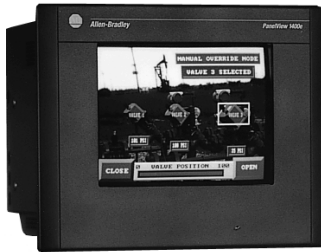
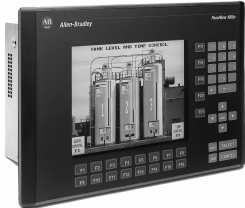
Product Data



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.

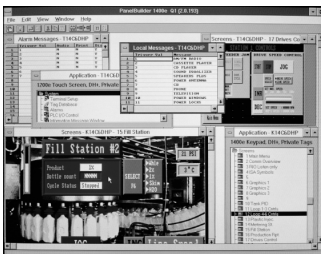
 **Rockwell** Automation
Allen-Bradley

PanelView 1000e, 1200e and 1400e Terminals



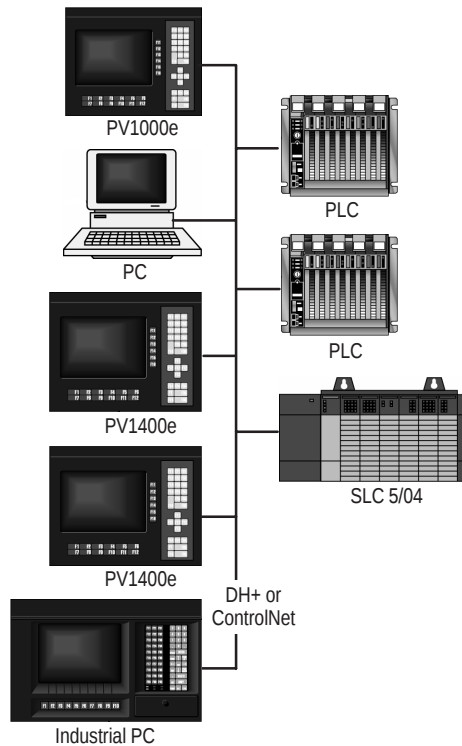
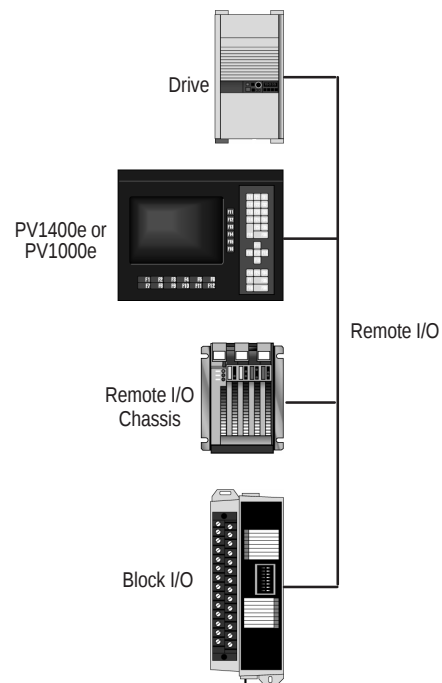
Catalog Number	Product Name	Description
2711E-T10C6	1000e Touch Screen Terminal	10.4 inch (26.4 cm) Flat Panel Color Display, Clip Mount, NEMA 4X (Indoor Use Only) with DH+ / Remote I/O Communications
2711E-K10C6	1000e Keypad Terminal	10.4 inch (26.4 cm) Flat Panel Color Display, Clip Mount, NEMA 4X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



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

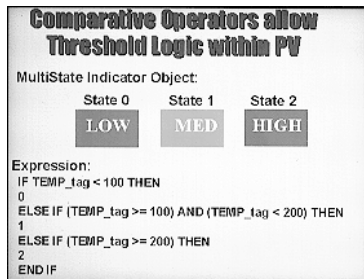
ControlNet Communications

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

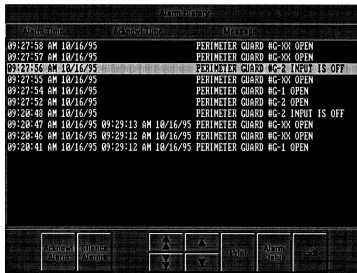
Enhanced Terminal Functions



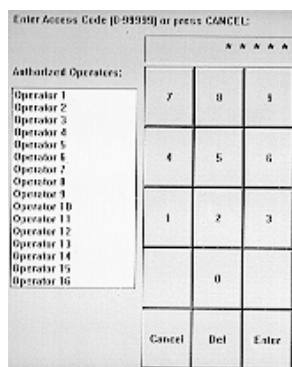
Example Graphics



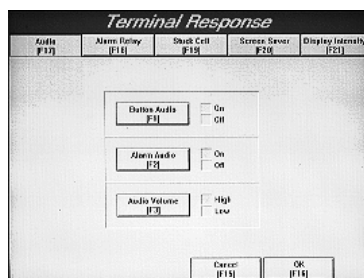
Threshold Logic Screen



Alarm History Screen



Screen with Security Window



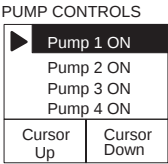
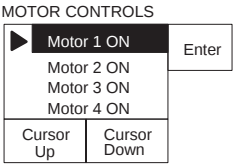
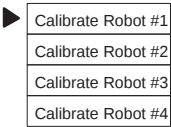
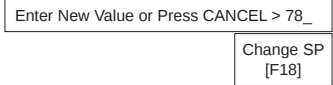
Terminal Response Screen

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 palette - .bmp 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 (+, -, *, /) - Logical (AND/OR/XOR/NOT) - Comparison (==, <=, <, >, <=, >=) - If ...Then .. 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.

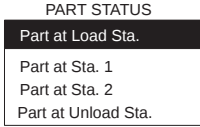
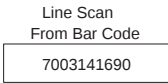
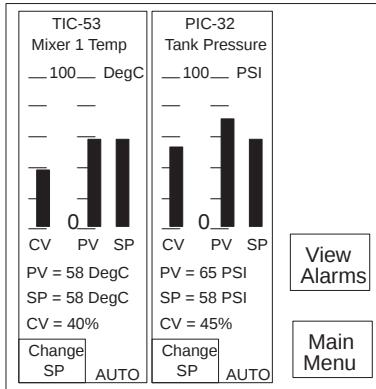
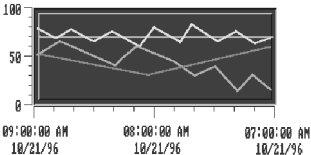
Operator Inputs

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 values - Separate 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-State 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. 	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. 	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. 	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. 	- 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

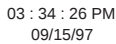
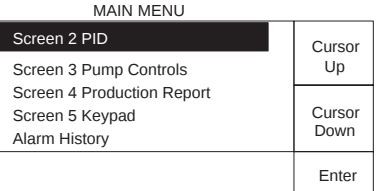
Operator Inputs

Object	Description	Selectable Options																																																																		
Numeric Keypad (Touch Screen terminals only)	When placed on a screen, allows data entry to the PLC from a touch screen terminal. <table><tr><td>78.95</td><td colspan="2">ENT</td></tr><tr><td>DEL</td><td>.</td><td></td></tr><tr><td>7</td><td>8</td><td>9</td></tr><tr><td>4</td><td>5</td><td>6</td></tr><tr><td>1</td><td>2</td><td>3</td></tr><tr><td>CLR</td><td>0</td><td></td></tr></table>	78.95	ENT		DEL	.		7	8	9	4	5	6	1	2	3	CLR	0		- Small or large size - Fixed, keypad or PLC controlled decimal point - Enter key handshake - Write tag or expression - Supports floating point data input																																																
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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 <table><thead><tr><th>ASSEMBLY STATION</th><th>OPTION</th><th>OPTION Style #</th></tr></thead><tbody><tr><td>31</td><td>REAR WINDOW DEFROSTER</td><td>169</td></tr><tr><td>32</td><td>SCOTCH GUARD</td><td>350</td></tr><tr><td>33</td><td>SOUND PROOFING</td><td>101</td></tr><tr><td>34</td><td>HEAD LIGHT RETRACT</td><td>59</td></tr><tr><td>35</td><td>HEAD LIGHT WASHER</td><td>85</td></tr></tbody></table> F1 F2 F3 F7 Up Page Up Home Change Style F9 F10 F11 Down Page Down End	ASSEMBLY STATION	OPTION	OPTION Style #	31	REAR WINDOW DEFROSTER	169	32	SCOTCH GUARD	350	33	SOUND PROOFING	101	34	HEAD LIGHT RETRACT	59	35	HEAD LIGHT WASHER	85	- 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																																																
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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 <table><thead><tr><th></th><th>Station #1</th><th>Station #2</th><th>Station #3</th></tr></thead><tbody><tr><td>Part #</td><td>1111</td><td>1111</td><td>3333</td></tr><tr><td>Qty.</td><td>500</td><td>500</td><td>0</td></tr></tbody></table>		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																																																						
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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. <table><tr><td>!</td><td>:</td><td>#</td><td>\$</td><td>%</td><td>;</td><td>&</td><td>*</td><td>(</td><td>)</td><td>0</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td></td><td></td></tr><tr><td>Q</td><td>W</td><td>E</td><td>R</td><td>T</td><td>Y</td><td>U</td><td>I</td><td>O</td><td>P</td><td></td></tr><tr><td>A</td><td>S</td><td>D</td><td>F</td><td>G</td><td>H</td><td>J</td><td>K</td><td>L</td><td>-</td><td></td></tr><tr><td>Z</td><td>X</td><td>C</td><td>V</td><td>B</td><td>N</td><td>M</td><td>/</td><td>?</td><td>.</td><td></td></tr><tr><td>SHF</td><td>CAPS</td><td>INS</td><td>DEL</td><td>SPACE</td><td><<</td><td>>></td><td>CLR</td><td></td><td></td><td></td></tr></table>	!	:	#	\$	%	;	&	*	(	)	0	1	2	3	4	5	6	7	8	9			Q	W	E	R	T	Y	U	I	O	P		A	S	D	F	G	H	J	K	L	-		Z	X	C	V	B	N	M	/	?	.		SHF	CAPS	INS	DEL	SPACE	<<	>>	CLR				- small or large size - Fill characters - Number of scratchpad characters (1-64) - Number of characters to PLC (1-82) - Enter key handshake tag
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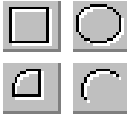
Display Objects

Object	Description	Selectable Options
Multistate Indicator 	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. 	1 to 255 possible states - Unique state values - Can apply graphics to indicator - Indicator tag or expression
List Indicator 	Notifies operator of current state by highlighting an entry in a list containing all possible states. 	1 to 24 possible list entries
Numeric Data Display 	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 	- 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. 	- 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 	Plots variable data over time. 	- 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. 	- Single or multiple lines - Up to 256 characters per message - Up to 2,000 messages in the "Local Message List" - Display tag or expression

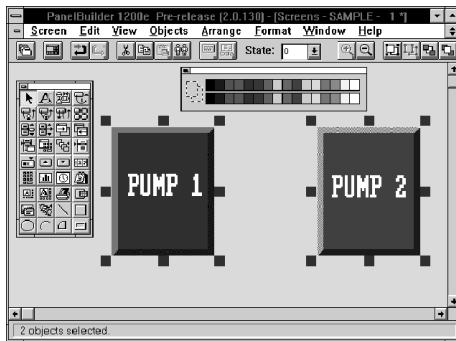
Display Objects

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. 	- 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. 	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. 	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		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 pattern - Change 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 pattern - Change 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		Creates lines with divisions for measurement on bar graphs, trend graphs or other indicator objects.	Automatic line spacing when sized

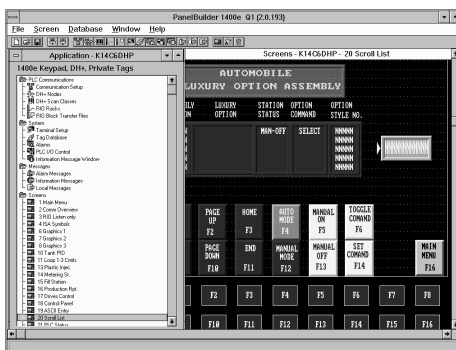
Enhanced Configuration Software



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

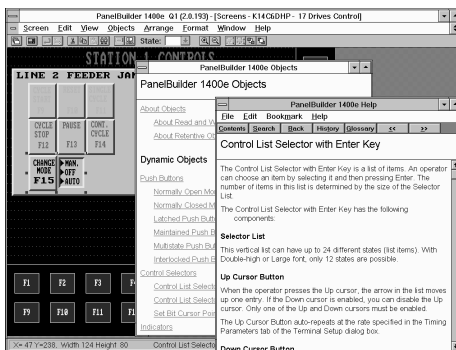
Windows Editing

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™.



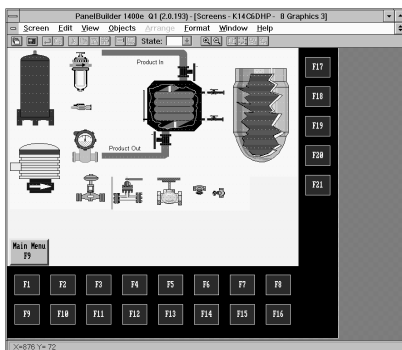
Application Organizer

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



On-Line Help

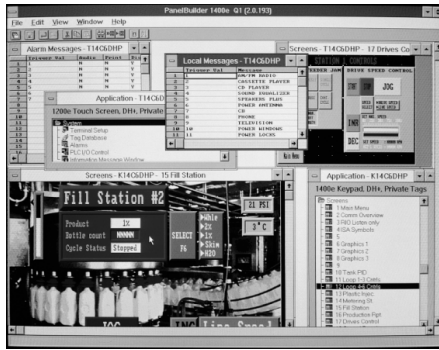
Context-sensitive, on-line help is available throughout PanelBuilder 1400e by choosing Help buttons in dialog boxes, or by pressing F1.



WYSIWYG Editing

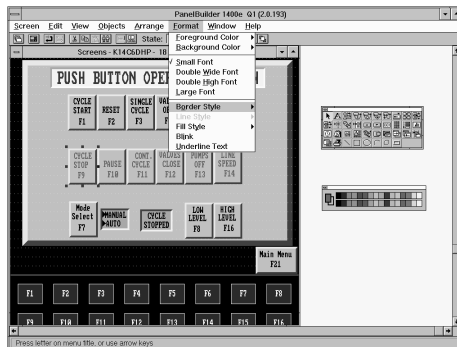
PanelBuilder 1400e takes the guesswork out of creating screens. Application screens and their objects – including graphics, ISA symbols, lines, arcs and text – appear on the development computer exactly as they will appear when downloaded to a PanelView 1000e, 1200e or 1400e terminal.

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

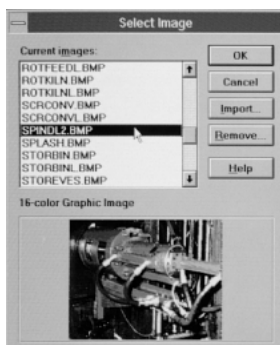
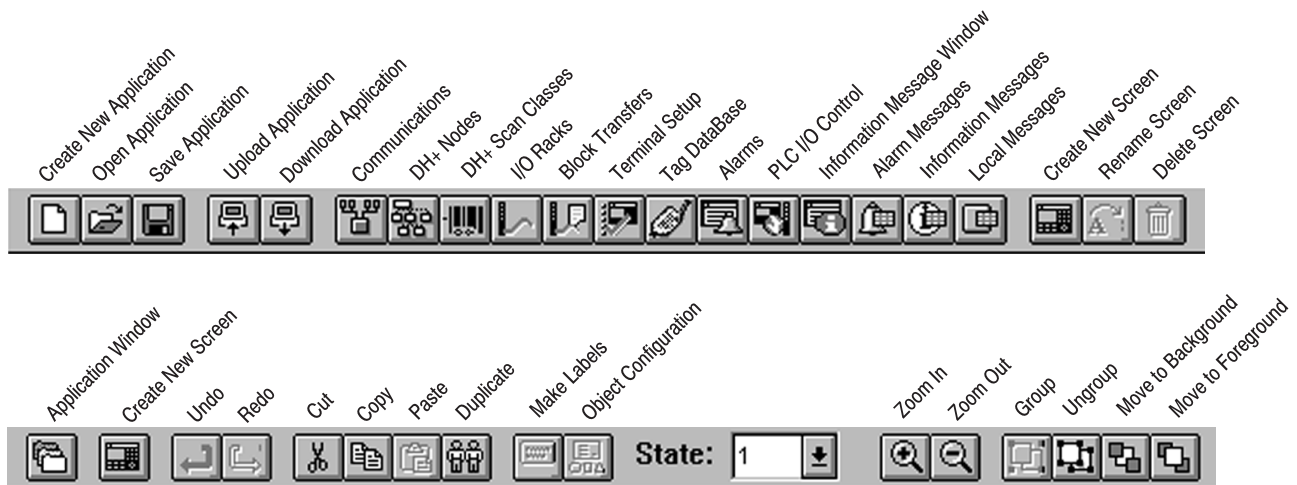
PanelBuilder 1400e software enables users to have multiple applications, screens and message editors open at the same time. This time-saving feature uses the clipboard to copy objects and messages between screens and applications.



Object Selection and Configuration Tools

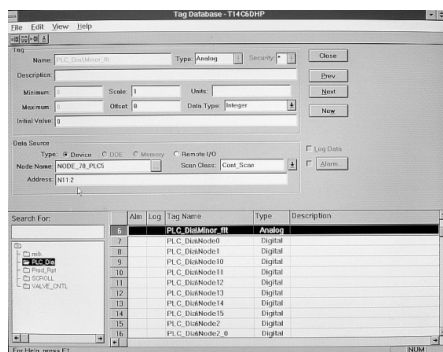
Dynamic control objects, indicators and graphic objects are available from toolboxes for easy selection so operators rarely need to use menus. To change an object's color, simply click on the color palette. Other tools are available to enhance the appearance of objects on the screens, such as border 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.



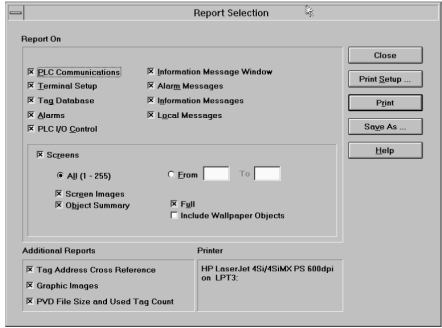
Tag Database

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™. 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.



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

General		File: T14C7DHF 10/10/97 11:33:06
Application Type:	1400e Touch Screen	
Application File Comment:	Demo Application	
Application Start up Screen:	1	
Tag Database:	Private	
PLC Communication		File: T14C7DHF 10/10/97 11:33:06
Setup		
Network Type:	DM+	
Baud Rate:	57.6 Kbd	
Terminal Network Address:	72	
PanelView Location Routing Address:	72	
Network File Transfer		
Transfer Exhibit Tag:		
Transfer Request Tag:		
Transfer Status Tag:		
Nodes		
Name: NODE_70_FLC5	Station: 70	Channel: 1
Type: FLC-5		Timeout (sec): 3. Enabled:
Name: Unsolicited_Msgs	Station: 0	Channel: 1
Type: FLC-2		Timeout (sec): 3. Enabled:
Scan Classes		
Name	Fg Period(sec)	Bg Period(sec)
cont_scan	0.	5.

Alarm Messages		File: T14C7DHF 10/10/97 11:33:06
Number	Trigger	A P D R N Message
1	1	N N V N LIO-173 SOLUTION LEVEL OVER 85 % .REDUCE LEVEL
2	2	N N V N LIO-174 SOLUTION LEVEL OVER 90 % .REDUCE LEVEL
3	3	N N V N LIO-175 SOLUTION LEVEL OVER 75 % .REDUCE LEVEL
4	4	N N V N INJECTION PRESSURE OVER 3000 PSI
5	5	N N V N PRESS SPEED OVER 800 RPM
6	6	N N V N INJECTION PRESSURE UNDER 500 PSI
7	7	N N V N PRESS SPEED UNDER 100 RPM

Terminal Setup		File: T14C7DHF 10/10/97 11:33:06
Global		
Application Type:	1400e Touch Screen	
Application Start up Screen:	1	
Application File Comment:	Demo Application	
Target Firmware Version:	03.00 and up	
Timing Parameters		
Push Button Hold Time:	250 msec	
Remote Alarm Operation Hold Time:	250 msec	
Remote Alarm Ack control Hold Time:	250 msec	
Remote Alarm Control Delay:	200 msec	
Enter Key Handshake Time:	4 seconds	
Enter Key Control Delay:	400 msec	
Information Window Ack Hold Time:	3 seconds	
Auto-Repeat Start Delay:	400 msec	
Auto-Repeat Rate:	4	

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
Touch Screen	- Analog Resistive Touch Screen with Clear, Hard-Coated, Scratch Resistant Polyester Membrane over Chemically Strengthened Glass - 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 Rating: 1,000,000 Presses	- Resistive Matrix Touch Screen with Water-Clear, Hard-Coated, Scratch Resistant Polyester over Chemically Strengthened Glass 120 Touch cell Areas (40 x 64 pixels) - Actuation Force: 2.5 to 3.5 oz (71 to 100 grams) - Actuation Rating: 1,000,000 Presses	- Analog Resistive Touch Screen with 95% Gloss (Anti-Glare), Hard-Coated, Scratch Resistant Polyester Membrane over Chemically Strengthened Glass - Up to 192 Touch Cell Areas May Be Defined as Small as 40 x 40 Pixels - Actuation Force: 2.5 to 3.0 oz (71 to 85 grams) - 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 Flash - PC memory card option up to 16MB	256 KB On-Board Flash - PC memory card option up to 16MB	256 KB On-Board Flash - PC 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)

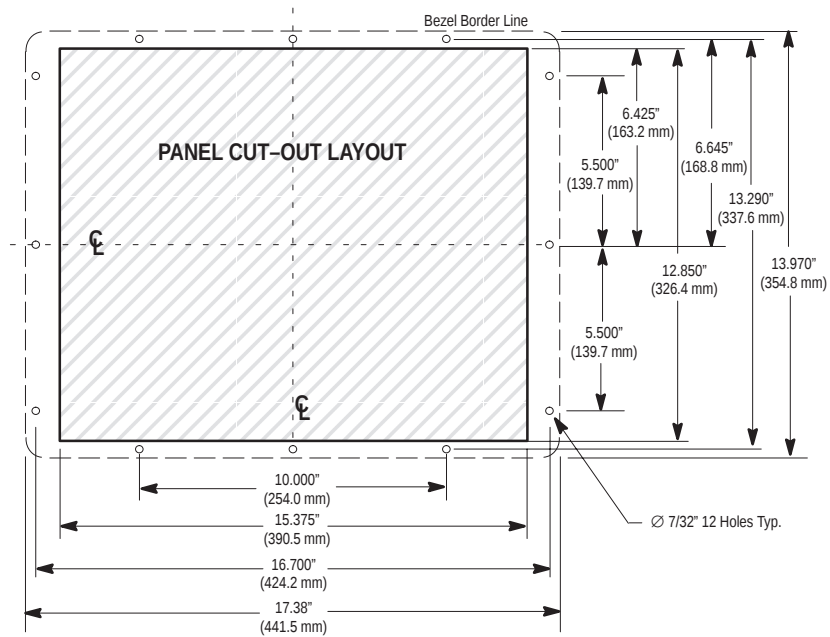
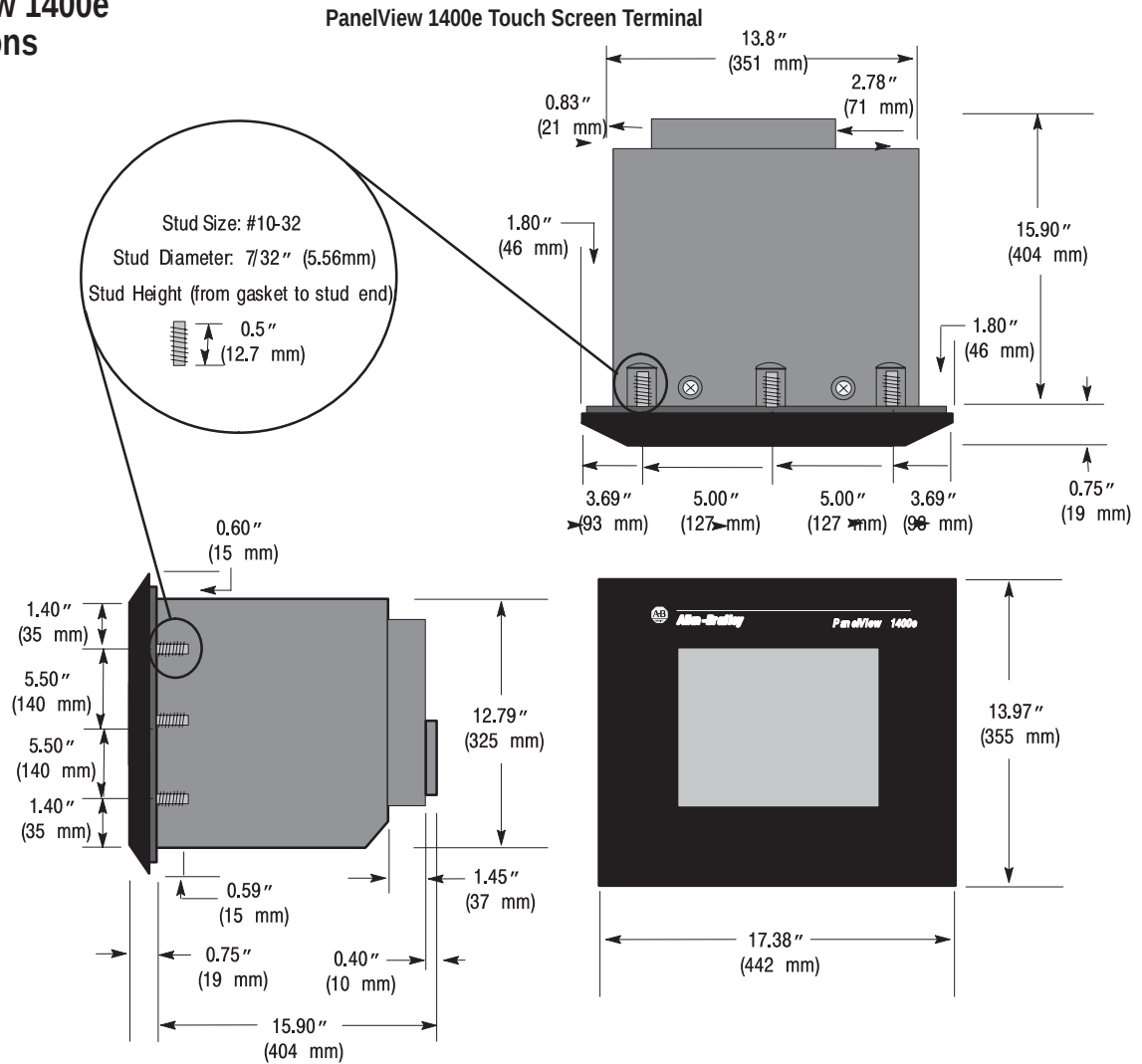
Environmental

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 Typical 290 BTU/Hour Maximum	222 BTU/Hour Typical 307 BTU/Hour Maximum	256 BTU/Hour Typical 341 BTU/Hour Maximum
Maximum Altitude	- Operating: 6500 Feet - Non-Operating: 40,000 Feet	- Operating: 10,000 Feet - Non-Operating: 40,000 Feet	- Operating: 10,000 Feet - Non-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

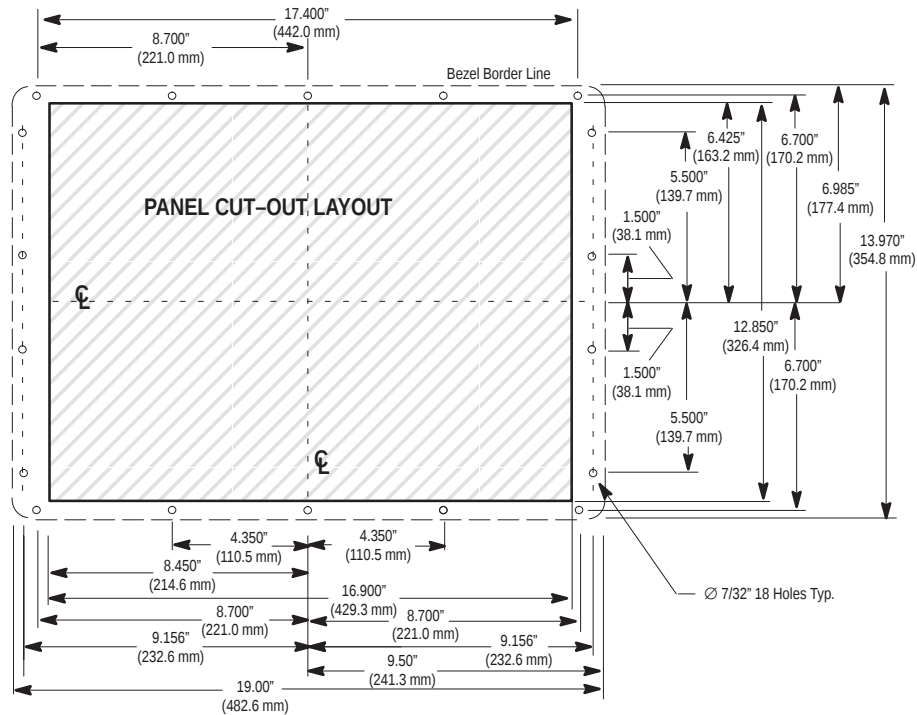
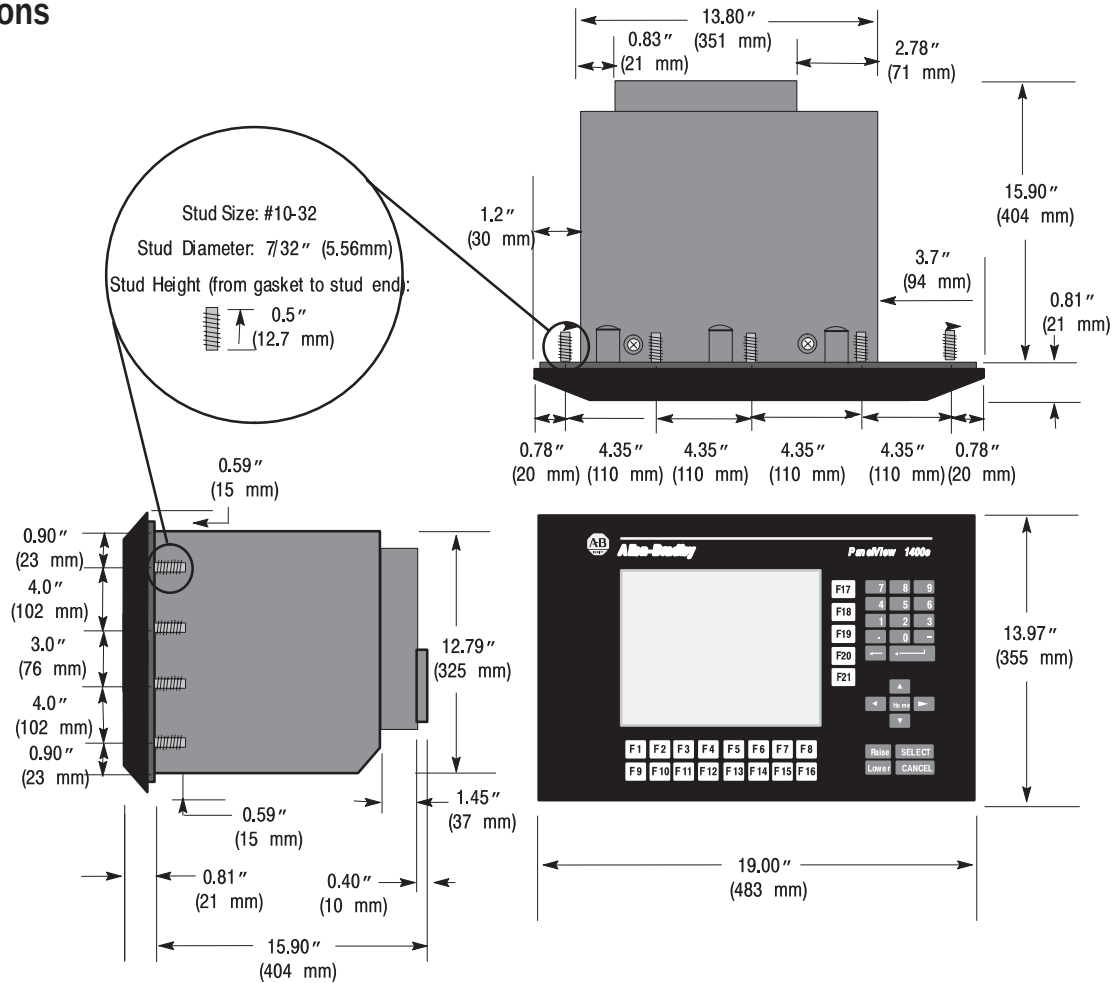
Standard	PanelView 1000e	PanelView 1200e	PanelView 1400e
Safety	- UL 508 - CUL 22.2 No. 142 Listed Through UL program (CSA Equivalent) - EU Low Voltage Directive: 73/23/EEC w/93/68/EEC Low Voltage Amendment from EN61010-1:1995 Standard	- UL 508 - CUL 22.2 No. 142 Listed Through UL program (CSA Equivalent)	- 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 Dimensions



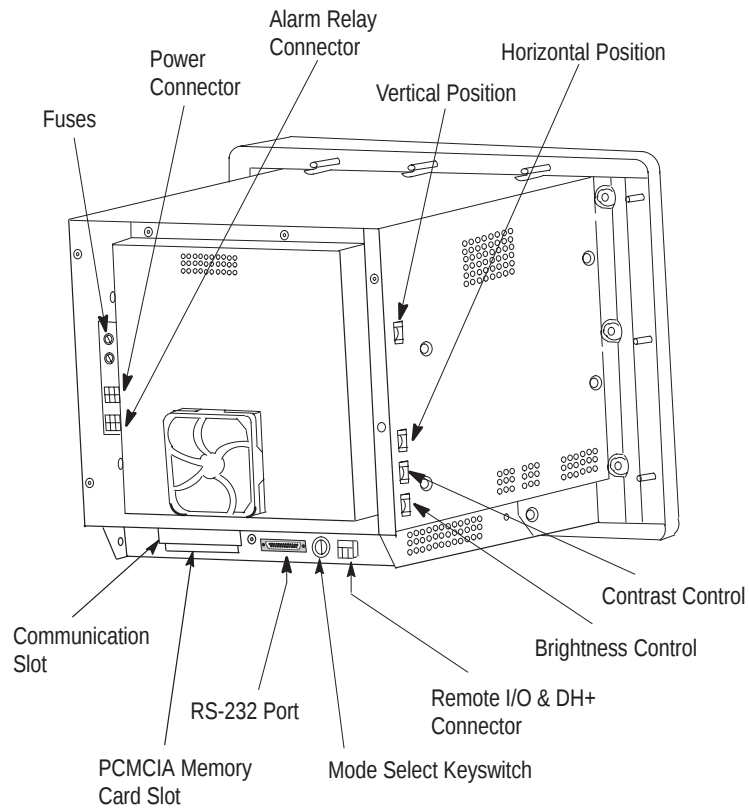
PanelView 1400e Dimensions

PanelView 1400e Keypad Terminal



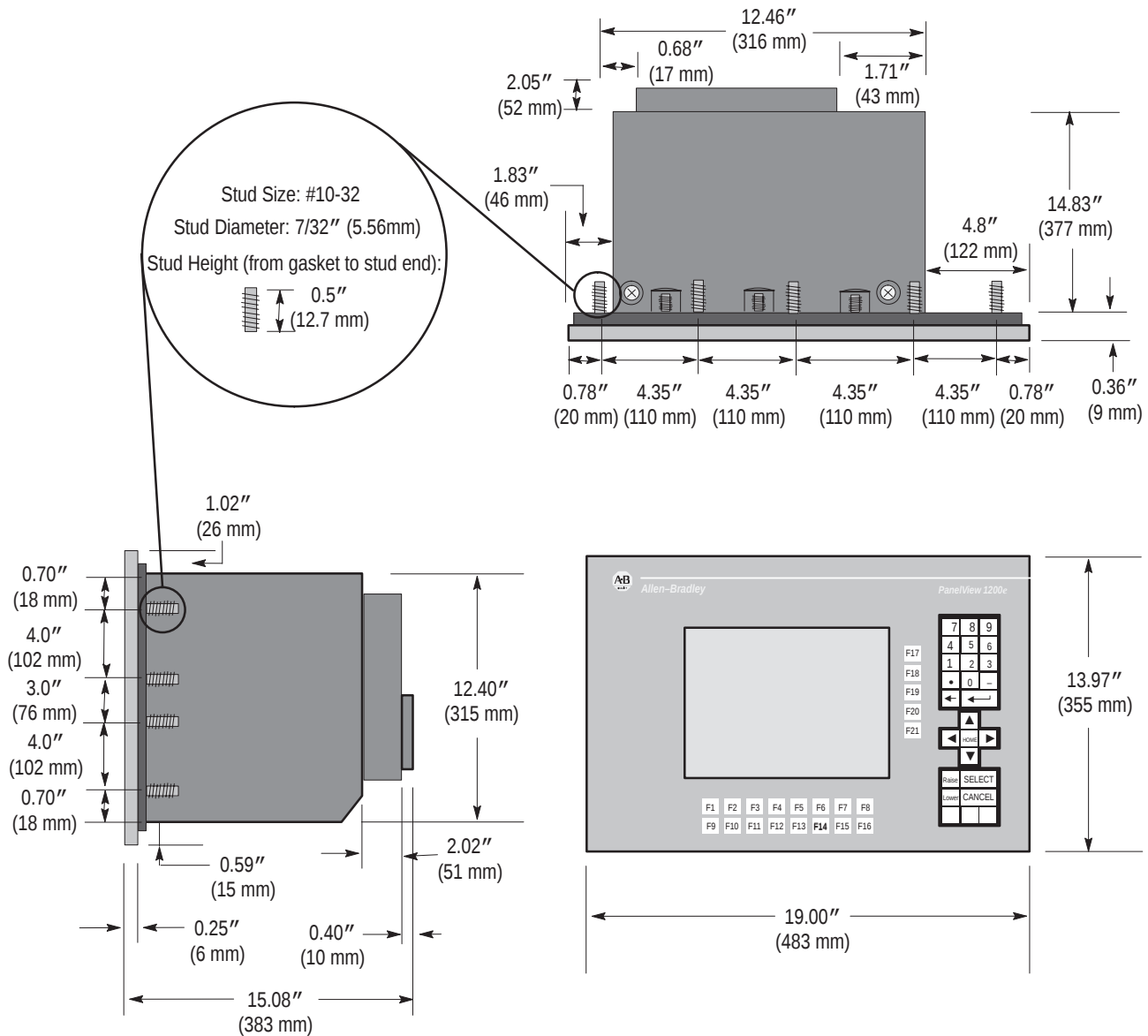
PanelView 1400e Mounting Details

PanelView 1400e Rear View

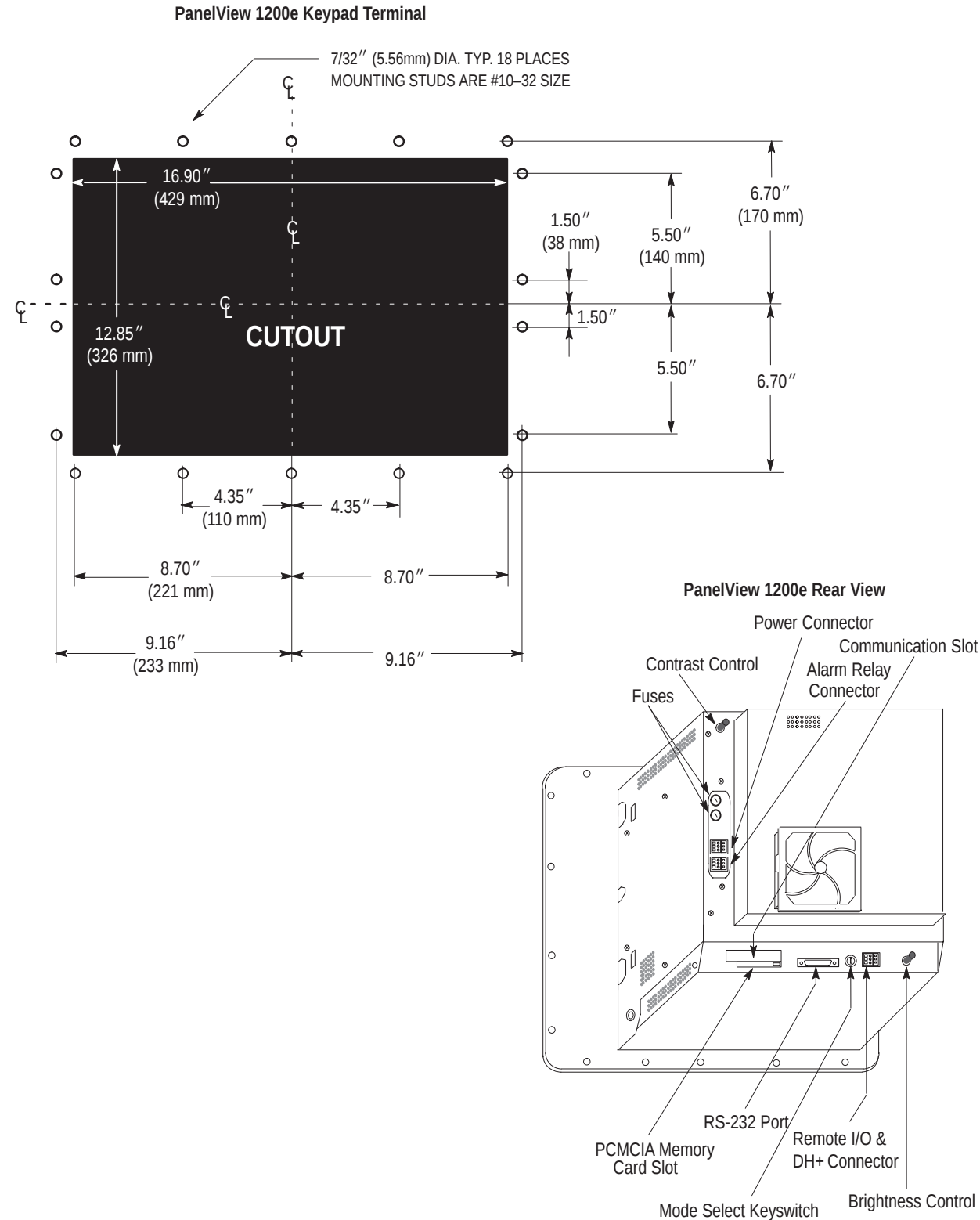


PanelView 1200e Dimensions

PanelView 1200e Keypad Terminal

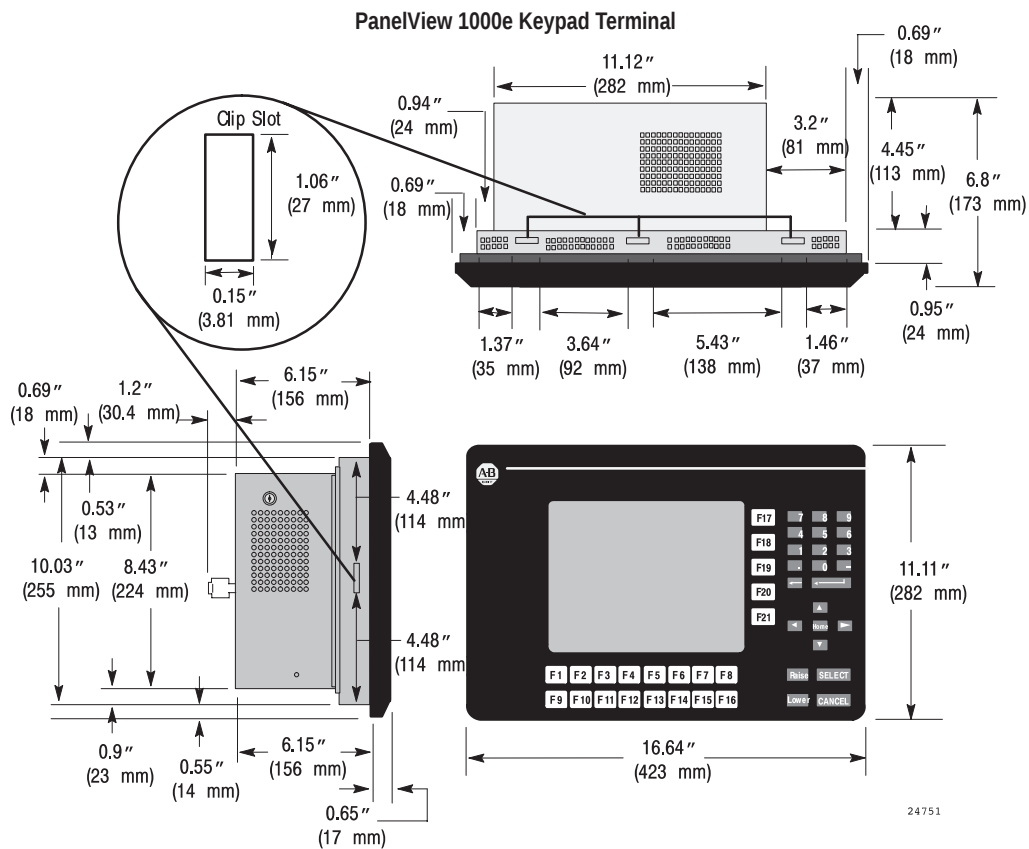
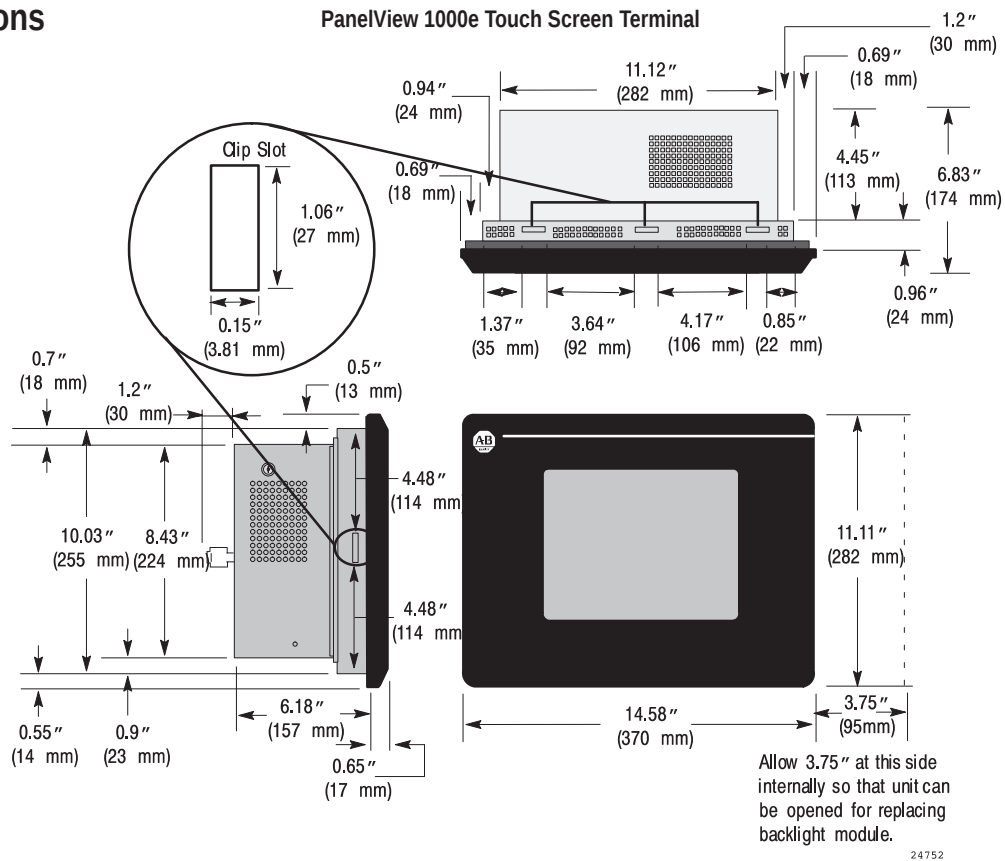


PanelView 1200e Cutout Dimensions and Mounting Details



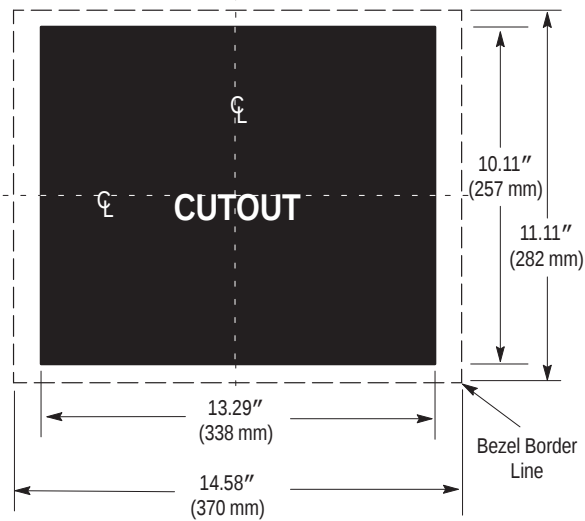
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PanelView 1000e Dimensions

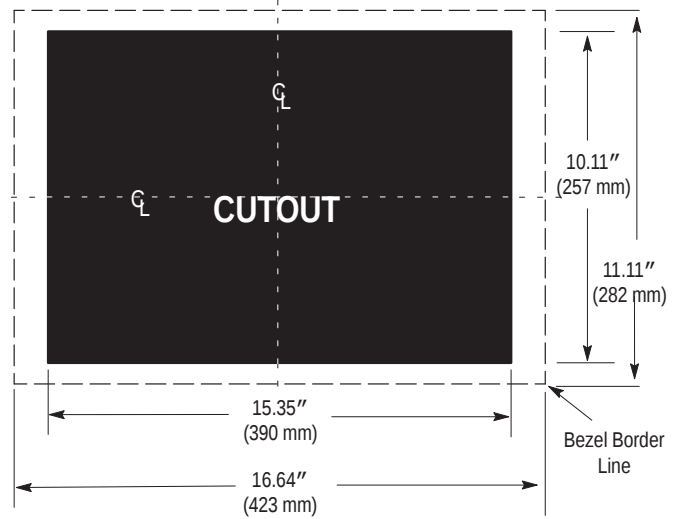


PanelView 1000e Cutout Dimensions and Mounting Details

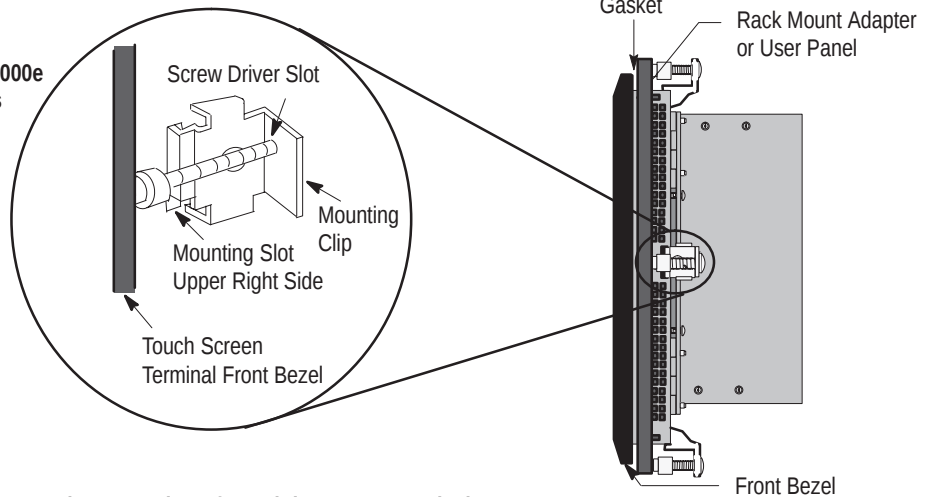
Panel Cutout for PanelView 1000e
Clip Mount Touch Screen Terminal



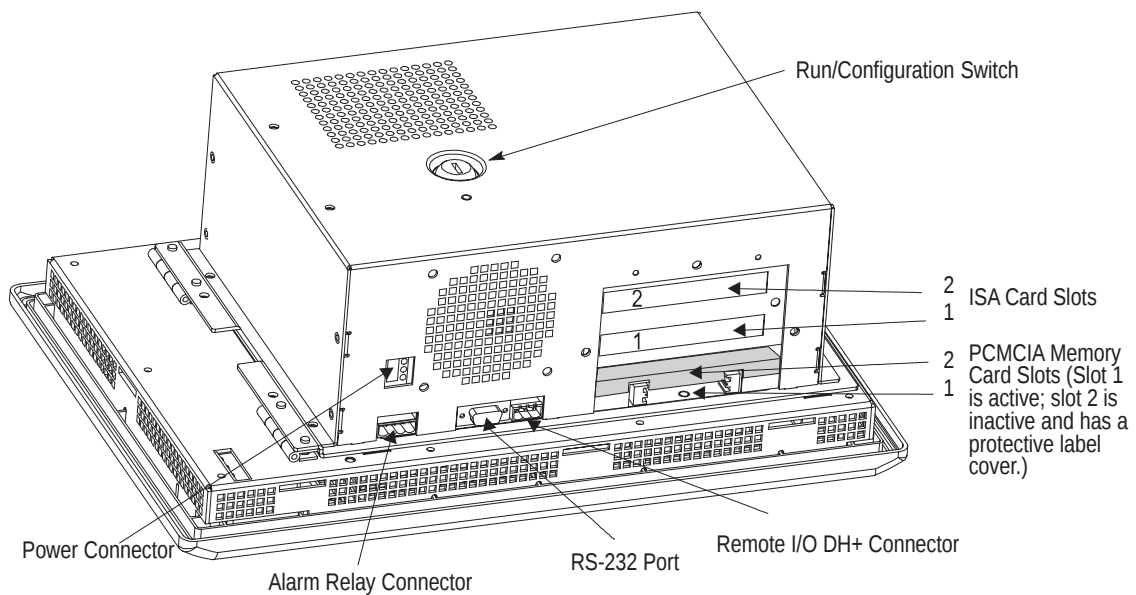
Panel Cutout for PanelView 1000e
Clip Mount Keypad Terminal



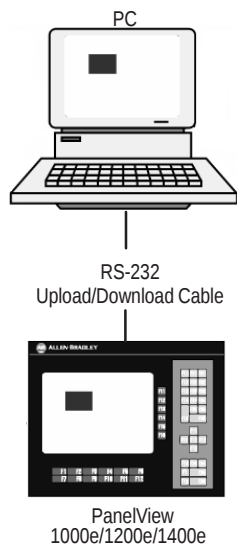
Clip Mounting Detail for PanelView 1000e
Touch Screen and Keypad Terminals



Rear and Bottom View of PanelView 1000e Terminal



PanelView 1000e, 1200e and 1400e Terminal Accessories



Memory Cards

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.
2711-NM2	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 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 or to back up application memory.
2711-NM3	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 to back up application memory.
2711-NM4	Cat. No. 2711-NM4 is for PanelView 1200 Terminals, Series F, and is used for memory backup only (128K).
2711-NM12	1 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.

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



Catalog Number	Description
2711-NR6K	19 inch Rack Mount Kit for PanelView 1000/1000e Keypad terminals. Includes 19 inch rack adapter and mounting hardware for 1000/1000e clip mounted keypad terminals.
2711-NV1	Anti-glare, protective overlay for PanelView 1200 and 1200e terminals (package of 5).
2711-NV6T	Anti-glare protective overlay for 1000/1000e touch screen terminals.
2711-NV6K	Anti-glare protective overlay for 1000/1000e keypad terminals.
2711E-NA1	ISA Card Adapter Kit for installing a communication card in a PanelView 1400e terminal. Note: A ControlNet ISA/EISA Interface card is also required for ControlNet communication. The Adapter (Cat. No. 2711E-NA1) and ControlNet Bus Interface Cards (Cat. No. 1784-KTCX or -KTCX15) are not required for PanelView 1400e ControlNet terminals (Cat. Nos. 2711E-T14C7, -T14C15, -K14C7, and -K14C15). They are already integrated into these terminals.
2711E-NA2	ISA Card Adapter Kit for installing a communication card in a PanelView 1000e terminal. Note: A ControlNet ISA/EISA Interface card is also required for ControlNet communication. The Adapter (Cat. No. 2711E-NA2) and ControlNet Bus Interface Cards (Cat. No. 1784-KTCX or -KTCX15) are not required for PanelView 1000e ControlNet terminals (Cat. Nos. 2711E-T10C7, -T10C15, -K10C7, and -K10C15). They are already integrated into these terminals.
2711E-NC1	Remote RS-232 Port Assembly for 1000e terminals only. Includes 9-pin RS-232 port assembly for remote access to the serial port.

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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