

Operator Interface Overview	<u>7-3</u>
 Message Displays	
MessageView Interactive Message Display Terminals	<u>7-6</u>
Dataliner Message Displays	<u>7-8</u>
DTAM Plus Operator Interface	<u>7-17</u>
DTAM Micro Operator Interface	<u>7-19</u>
MicroView Operator Interface	<u>7-21</u>
DeviceView Configurator	<u>7-23</u>
 Electronic Push-Button Modules	
RediPANEL Operator Modules	<u>7-24</u>
DeviceNet RediSTATION Operator Interface	<u>7-35</u>
 Graphic Terminals	
PanelView 900 and PanelView 550 Operator Terminals and Software	<u>7-36</u>
PanelView 1200e and 1400e Operator Terminals and Software	<u>7-40</u>
PanelView 1200 Operator Terminals and Software	<u>7-42</u>
 Industrial Computer Products	
Industrial Computers with Flat TFT Displays (6180 Series)	<u>7-45</u>
Industrial Computers with CRT Displays (6151 and 6152 Series)	<u>7-46</u>
Industrial Computers with CRT Displays (6153 and 6154 Series)	<u>7-47</u>
Industrial Computers without Integral Display (6155 and 6180 Series)	<u>7-48</u>
Industrial CRT Monitors (6156, 6158, and 6159 Series)	<u>7-49</u>
Industrial CRT Monitors (6157 Series)	<u>7-50</u>
Ordering Information (Industrial Computer Products)	<u>7-51</u>
Industrial Mouse	<u>7-56</u>
Industrial PC/AT Keyboards	<u>7-57</u>
 Operator Interface Enclosures	
ViewPort Operator Interface Enclosures	<u>7-58</u>
 Overview of NEMA Types	
	<u>7-60</u>
 Supervisory Control and MMI Software	
MMI Software Overview	<u>7-61</u>
RSView Software	<u>7-62</u>
WINtelligent VIEW Software	<u>7-64</u>

(Continued)

Software Components

WINtelligent RECIPE Software [7-65](#)

RSTrend Software [7-66](#)

ControlView Software [7-67](#)

Process Configuration and Operation (PCO) Software [7-69](#)

RSPower Software [7-70](#)

RSTools ActiveX Controls [7-71](#)

RSData Software [7-72](#)

RSWorkbench Development Environment [7-73](#)

Product Compliance Information [7-74](#)

Categories	Products
Message Displays	MessageView Operator Interface page 7-6 • Various vacuum fluorescent displays • NEMA Type 4x, 12, 13 • Class I Division 2 • UL/CSA • CE Mark Standard Format Message Displays page 7-8 Large Format Message Displays page 7-14 • Large red or tri-color (red, green, and amber) LED displays • Visibility up to 73 meters (240 feet) • NEMA Type 4 (indoor only), 12, and 13 • UL listed • CE Mark DTAM Plus Operator Interface page 7-17 • 4 × 20 LCD or vacuum fluorescent display • NEMA Type 4x, 12, 13 • Class I Division 2 • CE Mark DTAM Micro Operator Interface page 7-19 • 2 × 20 LCD display • NEMA Type 4, 12, 13 • Class I Division 2 • CE Mark MicroView Operator Interface page 7-21 • Specifically designed for use with MicroLogix processors • 2 × 16 LCD Display • NEMA Type 4, 12, 13 • Class I Division 2 • CE Mark DeviceView Configurator page 7-23 • Specifically designed for use with DeviceNet network • 2 × 16 LCD Display • CE Mark
Electronic Push Button Modules	RediPANEL Push Button Panels page 7-25 • Membrane or push-button devices • Universal remote I/O connection • NEMA Type 4x RediPANEL Keypad Panels page 7-32 • 1 × 16 vacuum fluorescent display • Universal remote I/O connection • NEMA Type 4x RediPANEL Plug & Go Panels page 7-33 • 800A push buttons • Communicates with 1492 wiring system cables • NEMA Type 12, 13 DeviceNet RediSTATION Operator Interface page 7-35 • Communicates on the DeviceNet network • Pre-assembled option

Categories	Products
Graphic Terminals	PanelView 900 Operator Terminals page 7-36 • Color 8.4-inch Active Matrix Thin Film Transistor (TFT) - 640 × 480 VGA pixel resolution • Monochrome 9.8-inch ac gas plasma display - 640 × 400 pixel resolution • NEMA Type 4x, 12, 13 • Microsoft Windows-based configuration software • Touch-screen or membrane-key input • 16 configurable function keys
	PanelView 550 Operator Terminals page 7-37 • Monochrome 5.5-inch LCD display • 256 × 128 pixel resolution • NEMA Type 4x, 12, 13 • Microsoft Windows-based configuration software • Touch-screen or combination touch and membrane-key input • 10 configurable function keys
	PanelView 1400e Operator Terminals page 7-40 • Color 14-inch CRT display • 640 × 480 VGA pixel resolution • NEMA Type 4x, 12, 13 • Microsoft Windows-based configuration software • Touch-screen or membrane-key input • 21 configurable function keys
	PanelView 1200e Operator Terminals page 7-40 • Same features as 1400e terminals except 1200e terminals have a color 12-inch CRT display
	PanelView 1200 Operator Terminals page 7-42
	Industrial Computers with Flat TFT Displays page 7-45 • 10.4-inch display • Panelmount or 19-inch rackmount
	Industrial Computers with CRT Displays page 7-46 • Resistant to shock, vibration, dirt, washdowns, and high temperatures • 14- or 20-inch display • ISA and/or PCI bus architecture
Industrial Computer Products	Industrial Computers without Integral Display page 7-48 • 19-inch rack or bench top or panelmount
	Industrial CRT Monitors page 7-49 • 14-, 17-, 20-, or 21-inch display • Long-term dependable performance in harsh factory environments • Panelmount or 19-inch rackmount
	Industrial PC/AT Keyboards page 7-57 • Sealed elastomer technology • Sealed membrane technology • 101-key U.S. configuration • NEMA Type 4, 12, 13 • Resistant to spills and dust

Categories	Products
Operator Interface Software	RSView Software page 7-62 Provides monitoring, control, and data acquisition functions in the Microsoft Windows environment.
	WINTelligent VIEW Software page 7-64 A visual graphics system that simultaneously modifies and animates data values through state changes, bargraphs, numeric, string, color changes, embedded trends, and slider bars to animate values.
	WINTelligent RECIPE Software page 7-65 A Microsoft Windows-based application for managing industrial process control recipes used with programmable controllers.
	RS Trend Software page 7-66 A powerful 32-bit application for collecting and monitoring real-time and historical PLC data for Microsoft Windows, Windows 95, and Windows NT operating systems.
	ControlView Software for DOS page 7-67 DOS or Windows-based MMI supervisory software used for monitoring and controlling real-time data
	Process Configuration and Operation Software page 7-69 A ControlView Software option that lets you develop your process more quickly and easily using familiar tools. PCO MMI faceplates allow online operation, control, and maintenance of the process loops.
	RSData Software page 7-72 Visual Basic-based custom-control software

MessageView Interactive Message Display Terminals

(Cat. No. 2706 Series)



The MessageView™ family of products includes flexible, low-cost, interactive display devices for both text and graphic characters. MessageView terminals provide a high-level operator interface to logic controllers and other peripherals, and are designed to meet a variety of machine control and monitoring applications. Versions available include display-only, display plus numeric input, and display with numeric input plus programmable function keys.

MessageView terminals can store 4,000 message entries including variable and time/stamp data with its Historical Event Stack Memory. The terminals can view and sort historical data by frequency and chronological order of occurrence, providing a highly diagnostic operator interface device. In addition, the Historical Event database can be imported into programs such as Microsoft Excel®, Microsoft Access®, Lotus®, and other Windows™ based applications.

All MessageView terminals offer an RS-232 communication port on the main logic board. This port can be used for uploading and downloading application programs, uploading the Historical Event Stack, communicating with ASCII Input devices, or with controllers using serial communication via ASCII Triggering. In addition, MessageView terminals can accept a communication DaughterBoard with an adapter port for a Universal Remote I/O link.

Features

- *Text display* using the industry standard Code Page 850 alphanumeric character set and ISA graphic symbols on a blue-green 128 x 32 dot matrix Vacuum Fluorescent Display
- *Eight brightness settings* ranging from 12 to 100%
- *Special text formatting* effects, including centering, scrolling, blinking, and inverse text
- *Date and time data display* from the on-board battery-backed Real Time Clock
- *Insertion of ASCII and Numeric Entry, Display Variables*
- *Historical Event Stack* logging of up to 4,000 message entries including variables, time data, and message ACK with time duration
- *Communicate with PLC and SLC processors* across a Universal Remote I/O or RS-232-C link

- *Communicate with slave message displays* across an RS-232-C link
- *Operating system using 128K bytes of Flash EPROM* internal memory capable of storing 4096 messages including run-time variables and application program code for quick and easy on-site programming

Compatibility

MessageView terminals can be used in networks hosting a wide range of devices. Some representative examples include:

- Multiple MessageView terminals
- PLC/SLC controllers
- ASCII Input Devices
- 1747-SN Remote I/O scanners
- Bulletin 2711 PanelView™ products
- Bulletin 2706 Dataliner™ message displays (DL10, DL40, DL50) as slave devices

Specifications



VFD Graphic Display		
Size (all terminals)		26.9 mm (H) x 108.5 mm (W) 1.06 in (H) x 4.27 in (W)
Characters		21 × 4; 10 × 2; 7 × 1
Pixels		128 x 32
LED Indicators	COMM FAULT	Green Red
Terminal Memory		
Application Memory		4096 messages x 21 characters
Historical Event Stack Memory		4000 messages x 21 characters
Communication		
Universal Remote I/O		Supports PLC and SLC controllers
ASCII Triggering		Supports PLC and SLC controllers
Electrical		
Supply Voltage		18 to 30V dc (24V dc nominal)
Power Consumption		20 W maximum (833mA @ 24V dc)
Environmental		
Temperature range:		
	Operating	0 to 55° C (32 to 131° F)
	Storage	-40 to 85° C (-40 to 185° F)
Humidity rating		5 to 95% (without condensation)
Ratings		UL Listed, CSA Certified, CE Marked NEMA Type 12, 13, 4X (indoor use only) and Class I Division 2
Dimensions		
Chasis:	Terminals D and N	91 mm (H) x 202 mm (W) x 65 mm (D) 3.6 in (H) x 8.0 in (W) x 4.0 (D)
	Terminal F	138 mm (H) x 202 mm (W) x 65 mm (D) 5.5 in (H) x 8.0 in (W) x 4.0 in (D)
Front Bezel:	Terminals D and N	130 mm (H) x 240 mm (W) x 16 mm (D) 5.1 in (H) x 9.5 in (W) x 0.6 (D)
	Terminal F	177 mm (H) x 240 mm (W) x 16 mm (D) 7.0 in (H) x 9.5 in (W) x 0.6 in (D)
Weight		
Terminals D and N		1.45 kg (3.2 lbs)
Terminal F		1.72 kg (3.8 lbs)

For ordering information, see page 7-7.

Ordering Information

MessageView Interactive Message Display Terminals and Programming Software

Description	Catalog Number
MessageView Display Terminal with 4-key interface, Universal Remote I/O communication, and communication with slave message displays	2706-M1D1
MessageView Display Terminal with 16-key interface, Universal Remote I/O communication, and communication with slave message displays	2706-M1N1
MessageView Display Terminal with 32-key interface, Universal Remote I/O communication, and communication with slave message displays	2706-M1F1
MessageView Display with 4-key interface and ASCII triggering functionality	2706-M1D
MessageView Display with 16-key interface and ASCII triggering functionality	2706-M1N
MessageView Display with 32-key interface and ASCII triggering functionality	2706-M1F
MessageBuilder™ Off-line Programming Software package for Windows	2706-MB1

Accessories

Description	Catalog Number
Upload/Download cable	2706-NC13

Dataliner Message Displays

(Bulletin 2706 DL5, DL10, DL20, DL40, DL50)



Dataliner™ Message Displays are available in six types:

- *DL5 Series* one- or two-line, very compact, dc powered, stored message display with parallel interface, [page 7-9](#)
- *DL10 Series* four-line message display with no memory. Can be a slave to DL20 and DL40 displays, [page 7-10](#)
- *DL20 Series* one-, two-, or four-line stored message or slave displays with serial and parallel interfaces, [page 7-11](#)
- *DL40 Series* two- or four-line stored message display with serial, parallel, and Universal Remote I/O interfaces, [page 7-12](#)
- *DL50 Series* large displays designed for high visibility up to 73 m (240 ft). Characters are available in different heights: either 53.3 mm (2.1 in) or 122 mm (4.8 in). Characters are available in either red or tri-color (red, green, amber), [page 7-14](#)

For Dataliner accessories, see [pages 7-15 and 7-16](#).

For more information, see the product data publications: *Dataliner 120V ac Parallel Input Converters (2706-2.1)*, *Dataliner DL10 and DL20 Enclosures (2706-2.2)*, *Dataliner Keyboards (2706-2.4)*, *Dataliner Lithium Battery Information (2706-2.7)*, *Dataliner DL40 Series Pass-Through Option (2706-2.10)*, *Dataliner Cable Diagrams (2706-2.15)*.



Bulletin 2706 DL5 Dataliner Message Displays are available in one- and two-line versions. These displays are designed for panel mounting on equipment in industrial environments. They are powered by 12-24V dc.

These units store preprogrammed messages that are displayed when the DL5 receives a command from a controlling device, such as a programmable controller. Programmed messages can display status, display variable data, help diagnose problems, or prompt an operator.

Features

- One- or two-line displays — 16 characters per line
- 5 mm (0.2 in) Vacuum Fluorescent Characters visible up to 3 m (10 ft)
- 12-24V dc
- Pilot light replacement operating modes
- Up to 387 message storage (8K bytes)
- EEPROM memory
- Numeric, binary, BCD, priority, round-robin operating modes
- Cyrillic character option
- Simple programming with a dumb terminal and the on-board editor or off-line programming package that runs on most IBM PC or PC compatible computers (minimum 640K bytes RAM required)
- Compact size

Ordering Information

1. Select the required version
2. Select the amount of memory
3. Order the required programming cable for your terminal or computer

Description	8K bytes (387 Message Blocks)	2K bytes (94 Message Blocks)
	Catalog Number	Catalog Number
One-line display by 16 characters	—	2706-D11J2
Two-line display by 16 characters per line	2706-D21J8	2706-D21J2

Specifications



Display characteristics	
Character height	• One-line: 5.31 mm (0.209 in) • Two-line: 5.94 mm (0.234 in)
Character set	Alphanumeric: uppercase only
Characters per line	16
Approximate viewing distance	3m (10 ft)
Character type	Vacuum fluorescent; 14 segment characters
Electrical	
Input voltage	12-24V dc
Input power	• Current: 250 mA maximum steady-state at 12V input • Power: 3 Watts maximum • Ripple: 5% of input voltage peak-to-peak maximum • Noise: 5% of input voltage p-p maximum
Operating and inrush current	• 12V dc: 250 mA operating (300 mA inrush) • 24V dc: 125 mA operating (300 mA inrush)
Parallel port	16 data input lines and one parallel port select input
Parallel port data input voltage	5 to 24V dc
Memory	• 2K bytes EEPROM: 94 message blocks • 8K bytes EEPROM: 387 message blocks
Environmental	
Temperature range	• Operating: 0 to 50° C (32 to 122° F) • Storage: -40 to 85° C (-40 to 185° F) • Humidity: 5%-95% (without condensation)
NEMA rating	UL Listed for Type 12 and 13. Designed but not listed for Type 4. UL File #E10314 UL Listed and CSA Certified for Class I Division 2 Groups A, B, C, D Hazardous Locations
Surge withstand	Passes IEEE Std. 472-1974 surge withstand capability tests
Dimensions	
One- and two-line	• Height 79.3 mm (3.12 in) • Width 159 mm (6.25 in) • Depth 109 mm (4.31 in)
Shipping weight	
Approximate shipping weight	1.35 kg (3 lbs)

For accessories, see page [7-15](#).

Message Displays

Dataliner Message Displays

(Bulletin 2706 DL10)



The DL10 Series includes four-line by 20-character message displays without memory. The DL10 Displays can function in either user-selectable “slave” or “terminal” mode.

In the “slave” mode, a DL10 display receives data from a DL20 or DL40 display acting as a “master.”

In the “terminal” mode, a display receives serial data from a computer or computer-like device.

Features

- 12.7 mm (1/2 in) characters. Readable from approximately 7.6m (25 ft)
- 20 characters per line
- Programming flexibility
- Serially addressable for multiple devices on the same communication line
- Versatile screw terminal connections

Ordering Information

Description	Catalog Number
Four-line by 20 characters per line	2706-A41J

DL10 Series Factory Options

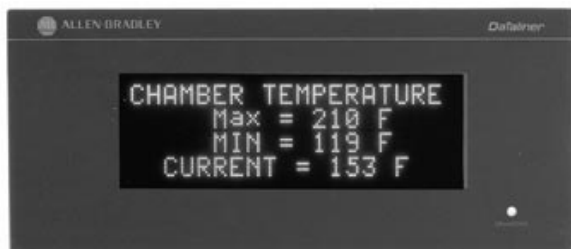
Description	Catalog Number
Stainless Steel Bezel Option — Installed at factory. (Replace “J” in cat. no. with “C.”) Example: 2706-A41C	—
220/240V ac DL10 Display	2706-A42J

See page 7-15 for accessories.

Specifications



Display characteristics	
Character height	Four-line: 12.7 mm (0.50 in)
Character set	Uppercase and lowercase symbols
Characters per line	20
Approximate viewing distance	Four-line: 7.6 m (25 ft)
Character type	Vacuum fluorescent, 5 x 7 dot matrix
Electrical	
Input voltage	110/120V ac $\pm 10\%$, 50/60 Hz 220/240V ac (optional)
Input power	Four-line — 55VA maximum
Serial input	RS-232 and RS-422
Communication rate (selectable)	300, 1200, or 9600
Parity (selectable)	Odd, even, none
Data length	7 data bits, + parity, 1 stop bit
Environmental	
Temperature range	• Operating: 0 to 60° C (32 to 140° F) • Storage: -40 to 85° C (-40 to 185° F)
Humidity	5%-95% (without condensation)
NEMA rating	• Standard: UL Listed for Type 12 and 13. • Designed but not listed for Type 4. • UL File #E10314 • IP65 • Stainless steel faceplate available • Steel: UL Listed for Type 12, 13 and 4X (indoor only) • UL Listed & CSA Certified for Class I Division 2 Groups A, B, C, D Hazardous Locations
Dimensions	
Four-line	• Height 157 mm (6.2 in) • Width 365 mm (14.4 in) • Depth 129 mm (5.1 in)
Shipping weight	
Four-line	5.3 kg (11.68 lb)



The DL20 Series includes one-, two-, and four-line by 20 character message displays with memory. The DL20 Display can receive message triggers from most programmable controllers or computers.

Features

- Up to 31K bytes battery-backed RAM for message
- One-, two-, and four-line displays
- Can program DL20 series displays via a menu-driven offline programming package that runs on most IBM PC or PC-compatible computers (minimum 640K-byte RAM required).
- Also programmable with keyboards (cat. nos. 2706-NK1 or -NK2) or a dumb terminal.
- 12.7 mm (½ in) High characters. Readable from approximately 7.6 m (25 ft)
- 20 characters per line

Ordering Information

1. Select the required version: one-, two-, or four-line
2. Select the amount of message memory: 8K, 16K, or 31K bytes

Important: DL20 displays (Series G or later) have a lifetime battery that does not require replacement.

Description	8K-byte Message Memory	16K-byte Message Memory	31K-byte Message Memory
	Catalog Number	Catalog Number	Catalog Number
One-line display	2706-B13J8	2706-B13J16	2706-B13J31
Two-line display	2706-B23J8	2706-B23J16	2706-B23J31
Four-line display	—	2706-B43J16	2706-B43J31

DL20 Series Factory Options

Description	Catalog Number
Stainless Steel Bezel Option — Installed at factory. (Replace “J” in cat. no. with “C.”) Example: 2706-B23C16	—

See page [7-15](#) for accessories.

Specifications



(See spec table below)

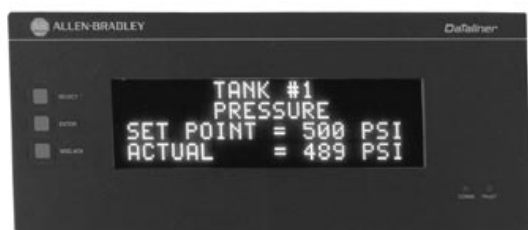


Display characteristics	
Character height	One-line: 14.2 mm (0.56 in) Two-line: 11.3 mm (0.44 in) Four-line: 12.7 mm (0.50 in)
Character set	Uppercase and lowercase symbols
Characters per line	20
Approximate viewing distance	One-line: 9.1 m (30 ft) Two-line: 7.6 m (25 ft) Four-line: 7.6 m (25 ft)
Character type	Vacuum fluorescent, dot matrix
Electrical	
Input voltage	85-264V ac, 47/63 Hz
Input power	45VA maximum at 85V ac
Fuse type	USA: 1.25A, 250V, Type MDL European: 1.5A, 250V, Type GMC
Serial input/output	RS-232 and RS-422 Communication rate: 300, 1200, or 9600 (selectable) Parity (send only): Odd, even, none (selectable) Data length: 7 data bits (+ parity) +12V dc out: 3 mA maximum
Parallel port terminals	10 data input lines. 2 strobe inputs. 5 to 30V dc (110/120V ac with 2706-NG1/ 2706-NG2 input converter) +5V dc out: 15 mA maximum
Memory	8K, 16K, 31K bytes of battery-backed RAM
Environmental	
Temperature range	• Operating: 0 to 60° C (32 to 140 ° F) • Storage: -40 to 85° C (-40 to 185° F)
Humidity	5-95% (without condensation)
NEMA rating	Standard: UL Listed for Type 12 and 13. Designed but not listed for Type 4. UL File #E56639 Stainless steel: UL Listed for Type 12, 13 and 4X (indoor only)
Dimensions	
One- and two-line	• Height 112 mm (4.4 in) • Width 366 mm (14.4 in) • Depth 188 mm (7.4 in)
Four-line	• Height 157 mm (6.2 in) • Width 366 mm (14.4 in) • Depth 188 mm (7.4 in)
Shipping weight	
One-line	4.3 kg (9.5 lbs)
Two-line	4.3 kg (9.5 lbs)
Four-line	5.4 kg (12 lbs)

Message Displays

Dataliner Message Displays

(Bulletin 2706 DL40)



The DL40 Series includes two- and four-line by 20-character message displays that have serial and parallel interfaces and an option to connect to Allen-Bradley PLC controllers via the Universal Remote I/O link.

Features

- *Diagnostic and Alarm Handling Functions* provide information to the operator during fault conditions
- *Optional Universal Remote I/O Communication* to Allen-Bradley SLC and PLC controllers via the Universal Remote I/O link
- *Remote I/O PassThrough™* allows uploading and downloading to messages via DH+ or Ethernet and remote I/O communication with a PLC-5 controller
- *Front-Panel Push Buttons* are able to acknowledge the receipt of messages, as well as select modes of operation and set up parameters
- *ASCII Input to PLC via IBM or Compatible Keyboard* let the operator send information, such as part numbers or recipe input, to the PLC controller via the DL40
- *Simplified Programming* through the use of a menu-driven, off-line programming package that runs on most IBM PC or PC compatible computers
- *Extended ASCII Characters* provide characters, such as é, ñ and ö, that allow display of messages in a number of languages including German, French, and Spanish. Cyrillic character set is optional
- *Connects to DL10 or DL50 slaves* for multiple display systems

Multiple Run Modes provide the flexibility for the DL40 to meet various applications:

- *Message/Variable Run Mode* provides capability to embed process variables into a message
- *Message/Variable Slave Run Mode* lets you designate DL10 or DL50 slaves at runtime
- *Bit Trigger Run Mode* lets you trigger messages with single bits (Universal Remote I/O only)
- *Message List Run Mode* lets you to repeatedly display multiple messages

- *EEPROM Memory Modules* are available for uploading, downloading, and storing messages

Specifications



(See spec table below)



Display Characteristics	
Character height	• Two-line: 11.3 mm (0.44 in) • Four-line: 11.3 mm (0.44 in)
Character set	Upper and lower case, extended ASCII
Characters per line	20
Approximate viewing distance	7.62 m (25 ft)
Character type	Vacuum fluorescent, 5 x 7 dot matrix characters
Development software	Runs on most IBM PC or PC compatible computers including Allen-Bradley computers • Pull-down menu-driven • 3-1/2 inch floppy diskette
Electrical	
Input voltage	85-264V ac, 47/63 Hz
Input power	45VA maximum at 85V ac
Fuse type	USA: 1.25A, 250V, Type MDL European: 1.5A, 250V, Type GMC
Serial input/output	RS-232 and RS-485
Communication rate	300, 1200, 2400, 4800, 9600 or 19,200 (selectable)
Parity	Odd, even, none (selectable)
Data length	7 or 8 bits
Parallel port terminals	16 data input lines, 4 strobe inputs, 5 to 30V dc (110/120V ac with 2706-NG2 input converter), (two converters may be required) +12V dc out: 300 mA maximum
Annunciation relay	3A @ 240Vdc (ac); 3A @ 30V dc (dc)
Universal Remote I/O Communication	
Communication rate	57.6, 115.2, or 230.4k bit/s
Maximum I/O cable distance	2800 m (10,000 ft) for 57.6k bit/s 1400 m (5,000 ft) for 115.2k bit/s 700 m (2,500 ft) for 230.4k bit/s
Rack sizes	1/4, 1/2, 3/4, or 1 Supports single transfers and block transfers
Block transfer	Allows up to 12 words of data to be transferred with 1/4 rack of I/O image table.
Environmental	
Temperature range	Operating: 0 to 60° C (32 to 140° F) Storage: -40 to 85° C (-40 to 184° F)
Humidity	Humidity: 5-95% (without condensation)
NEMA rating	Standard: UL Listed for Type 12 and 13. Designed but not listed for Type 4. UL File #E56639 Stainless steel: UL Listed for Type 12, 13 and 4X (indoor only)
Dimensions	
Two-line	• Height 112 mm (4.4 in) • Width 366 mm (14.4 in) • Depth 124 mm (4.9 in)
Four-line	• Height 157 mm (6.2 in) • Width 366 mm (14.4 in) • Depth 124 mm (4.9 in)
Shipping weight	
Two-line	3.4 kg (7.5 lbs)
Four-line	4.2 kg (9.2 lbs)

For communication options and ordering info, see page 7-13.

Allen-Bradley

Communication Options

A-B Universal Remote I/O	Appears as $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or full I/O rack. Supports single-transfer and block-transfer of I/O data (optional).
Parallel port	16 data-input lines, 4 strobe lines, 12V dc internal power supply
RS-232 serial port	• Allows upload/download from development system to a single DL40. • Allows upload/download from tape recorder. • Allows serial printing during run-time
RS-485 serial port	• Allows message triggering • Allows upload/download from development system to a single DL40. • Allows for communication to slave (DL10 and DL50) message displays.
IBM keyboard port	Allows input from an IBM compatible keyboard or bar-code device, such as a bulletin 2755-EZ to 2755-EZ3, 2755-G3-W, -G6-W, -LD1-D, -LD2-D. Data is returned either through the remote I/O link or the RS-485 serial port.

Ordering Information

- Select the number of lines: two-line or four-line
- Select the message memory size:
 - 16K bytes — two-line only
 - 32K bytes — two- and four-line
 - 64K bytes — four-line only
 - 128K bytes — four-line only
- Select the required version: (All units contain RS-232, RS-485, and IBM PC keyboard ports)
 - Universal Remote I/O
 - parallel port

Description	Message memory size	Catalog Number
Two-line display	16K bytes	2706-E23J16
Two-line display	32K bytes	2706-E23J32
Four-line display	32K bytes	2706-E43J32
Four-line display	64K bytes	2706-E43J64
Four-line display	128K bytes	2706-E43J128
Two-line display with Universal Remote I/O	16K bytes	2706-E23J16B1
Two-line display with Universal Remote I/O	32K bytes	2706-E23J32B1
Four-line display with Universal Remote I/O	32K bytes	2706-E43J32B1
Four-line display with Universal Remote I/O	64K bytes	2706-E43J64B1
Four-line display with Universal Remote I/O	128K bytes	2706-E43J128B1

DL40 Series Factory Options

Description	Catalog Number
Stainless Steel Bezel Option — Installed at factory. (Replace "J" in cat. no. with "C".) Example: 2706-E23C32	—
Cyrillic character option four-line display with Universal Remote I/O, 32K-byte memory	2706-NX3

For accessories, see page [7-15](#).



The DL50 features either red or a tri-color LED display for enhanced message visibility. Large red, green or amber character displays allow messages to be seen and responded to quickly, reducing downtime and response time. Selectable character sizes of 53 mm (2.1 in) or 122 mm (4.8 in) can be viewed from a distance of up to 73 m (240 ft).

These displays can be used as a slave to either a DL20 or DL40 message display. The DL50 can also receive messages from any PLC®, SLC™, computer or ASCII device supporting RS-232 or RS-485 communication.

Features

- *Multicolor LEDs* support red, green or amber colors for entire messages or individual characters. Color coded displays provide for easy message recognition. For example: Red=Fault, Amber=Warning, Green=Status
- *Selectable character size*, display two lines of 53 mm (2.1 in) characters or one line of 122 mm (4.8 in) characters
- *Scrolling displays* allow long messages to scroll across the display
- *Anti-glare, 7° Downward Tilted Window* provides increased visibility from ground level
- *Alarm Relay* can provide audible or visual indication of all or selected messages, using a connected horn or lamp
- *Flashing displays* increase operator awareness of important messages
- *23 Display Modes* offer a wide range of special visual effects when using duplex protocol, such as wipe down or starburst
- *Switch Configuration* makes setup easy
- *Fault Isolation LEDs* show the DL50 operating status at a glance. Overtemperature LED indicates power reduction mode, protecting internal circuitry from excessive heat

Specifications



(See spec table below)



Display Characteristics

Character height	53.3 mm (2.1 in) or 122 mm (4.8 in), selectable
Character set	Standard and Extended ASCII
Characters per line	2.1 in characters: 20 or 40 4.8 in characters: 10 or 20
Approximate viewing distance	2.1 in characters: 30.5 m (100 ft) 4.8 in characters: 73 m (240 ft)
Display types	Tri-color or red monochrome LED matrix
Display color	Red, green or amber characters

Electrical

Input voltage:	100 to 240V ac, 50 to 60 Hz
Input power:	2706-F11J 140VA 2706-F11JC 150VA 2706-F21J 250VA 2706-F21JC 280VA
Fuse type:	USA 2.5A, Type AGC European 2.5A, Type GMA
Annunciation relay:	AC 3A at 240V ac DC 3A at 30V dc

Communication

Protocols:	Simplex Duplex	Serial ASCII protocol Serial ASCII protocol with ACK/NAK response and optional checksum
Serial input	RS-232 point-to-point, and RS-485 multi-drop	
Communication rate	300, 1200, 9600 or 19,200 bit/s	
Data length	8 data bits — no parity, 1 stop bit	

Environmental

Temperature range	• Operating: 0 to 60° C (32 to 140° F) • Storage: -40 to 85° C (-40 to 185° F)
Humidity	• 5 to 95% (without condensation)
Shock	• Operating: 15 g • Non-operating: 30 g (pulses)
Vibration	• Operating: 1.0 g • Non-operating: 2.5 g (sinusoidal)
NEMA rating	UL Listed for Type 12 and 13. Designed but not listed for Type 4 (indoor use only).

Dimensions

cat. no. 2706-F11J, -F11JC (tri-color)	• Height 224 mm (8.8 in) • Width 1,026 mm (40.4 in) • Depth 113 mm (4.5 in)
cat. no. 2706-F21J, -F21JC (tri-color)	• Height 224 mm (8.8 in) • Width 1,930 mm (76 in) • Depth 113 mm (4.5 in)

Shipping Weight

cat. no. 2706-F11J, -F11JC	18 kg (40 lbs)
cat. no. 2706-F21J, -F21JC	34 kg (75 lbs)

Ordering Information

Description	Catalog Number
Red DL50 display, two lines of (20) 53.3 mm (2.1 in) characters or one line of (10) 122 mm (4.8 in) characters	2706-F11J
Red DL50 display, two lines of (40) 53.3 mm (2.1 in) characters or one line of (20) 122 mm (4.8 in) characters	2706-F21J
Tri-color DL50 display, two lines of twenty 53 mm (2.1 in) characters or one line of ten 122 mm (4.8 in) characters	2706-F11JC
Tri-color DL50 display, two lines of forty 53 mm (2.1 in) characters or one line of twenty 122 mm (4.8 in) characters	2706-F21JC
Mounting bracket for back to back or wall mounting. Bracket angle is adjustable.	2706-NJ3

For accessories, see page 7-15.

Dataliner Accessories

Series					Description	Catalog Number
DL5	DL10	DL20	DL40	DL50		
Cables						
●			●		Programming Cables DL5, DL40 cable for IBM or compatible computers ① (25-pin female), or DEC VT52, VT100, and VT101 terminals (DL5 only)	2706-NC12
●			●		DL5, DL40 cable for Allen-Bradley 6121, IBM or compatible computers ① (9-pin female)	2706-NC13
●			●		DL5, DL40 cable for Allen-Bradley 6120 computers (9-pin female)	2706-NC14
●			●		DL5, DL40 cable for Allen-Bradley industrial terminals T1 through T4 (25-pin male)	2706-NC15
		●			DL20 cable for Allen-Bradley industrial terminals T1 through T4 or most DTE-type dumb terminals (male 25-pin D-shell)	2706-NC1
		●			DL20 cable for IBM or compatibles ① or DEC VT52, VT100 or VT101 terminals (female 25-pin D-shell). (Use 25 to 9-pin "AT Adapter" cable with 2706-NC2 for 1784-T50 or -T60 industrial terminals or IBM AT computers).	2706-NC2
		● ●			Tape Loader Cables DL20 Data Recorder Interface cable for EPI STR-LINK II or III data recorders. DL20 Data Recorder Interface cable for Allen-Bradley 1770-SB or 1770-SA data recorders.	2706-NC3 ② 2706-NC4
		●			A-B terminals to EPI STR-LINK II or III recorder cable This cable must be ordered if an A-B industrial terminal and an EPI STR-LINK II or III data recorder are to be used. It is not needed if either of the programming keyboards (cat. nos. 2706-NK1 or -NK2) are being used.	2706-NC5
Development Software						
●					DL5 Development Software DL5 Off-line Programming Software for IBM or compatible with 5-1/4-inch or 3-1/2-inch disk drive ①	2706-NP5
		●			DL20 Development Software DL20 Off-line Programming Software for IBM or compatible with 5-1/4-inch or 3-1/2-inch disk drive ①	2706-NP3
			●		DL40 Development Software DL40 Off-line Programming Software for IBM or compatible with 5-1/4-inch or 3-1/23-1/-inch disk drive ①	2706-ND1
EEPROMs						
			● ● ●		DL40 Memory Module 16K-byte Memory Module 32K-byte Memory Module 64K-byte Memory Module	2706-NMM16 2706-NMM32 2706-NMM64
Keyboards						
		● ●			DL20 Standard Keyboard Membrane Keyboard	2706-NK1 2706-NK2

① Including Allen-Bradley industrial terminals.

② Terminal to recorder cable (cat. no. 2706-NC5) is also required when using the EPI STR-LINK II or III data recorders and an Allen-Bradley industrial terminal. The cable (cat. no. 2706-NC5) is not needed if either of the programming keyboards (cat. nos. 2706-NK1 or -NK2) are being used.

Dataliner Message Displays

(Bulletin 2706)

Dataliner Accessories (continued)

Series					Description	Catalog Number
DL5	DL10	DL20	DL40	DL50		
		●			Addressing Bar The addressing bar allows switch selection of an address for a DL20 display when multiple displays are placed on an RS-422 line. One addressing bar is used per DL20 display. If not used, the DL20 address can be selected when programming the display. DL20 series Addressing Bar	2706-NF1
		● ●	●		120V Parallel Input Converter These 120V ac Parallel Input Converters are used with the DL20 and DL40 series displays. The converters connect to the parallel input port and allow the use of 120V ac input voltages to trigger messages. Display-Mounted 120V ac Parallel Input Converter Panel-Mounted 120V ac Parallel Input Converter (2 required for DL40)	2706-NG1 2706-NG2
	● ●	● ●	● ●		DL10, DL20 and DL40 Enclosures A NEMA Type 12/13 enclosure complete with mounting holes and cut-out for one DL10, DL20 or DL40 series display. Access door is gasketed Enclosure for one- or two-line DL20 or DL40 display Enclosure for four-line DL10, DL20 or DL40 display Note: The add-on parallel input converter (cat. no. 2706-NG1) will not fit on a DL20 display when it is mounted in this enclosure. Panel-mounted input converter (cat. no. 2706-NG2) must be used and mounted in a separate enclosure.	2706-NE2 2706-NE1
	● ●	● ●			Flush Mounting Kits By ordering a flush mounting kit, you can eliminate the standard bezel supplied with the display, allowing it to be mounted using the face of your enclosure as a "flush bezel." Flush Mounting Kit for a one- or two-line DL20 display Flush Mounting Kit for a four-line DL10 or DL20 display	2706-NJ1 2706-NJ2
			●		Keyboard Front Panel Access Kit Kit contains: 8 pin DIN connector panel mount to 8 pin DIN connector on the back of the DL40 keyboard cable extension Panel access cover to deny access to the connectors and maintain NEMA Type 4	2706-NPAK1
			●		RS-232 Front Panel Access Kit Kit contains: 9-pin D connector panel mount to 9-pin D connector on the back of the DL40 RS-232 cable extension Panel access cover to deny access to the connectors and maintain NEMA Type 4 rating	2706-NPAK2
				●	Mounting Bracket For back to back mounting of DL50 displays	2706-NJ3

For more information, see the product data publications: *Dataliner 120V ac Parallel Input Converters (2706-2.1)*; *Dataliner DL10 and DL20 Enclosures (2706-2.2)*; *Dataliner Keyboards (2706-2.4)*, *Dataliner Lithium Battery Information (2706-2.7)*; *Dataliner DL40 Series Pass-Through Option ([2706-2.10](#))*; *Dataliner Cable Diagrams (2706-2.15)*.



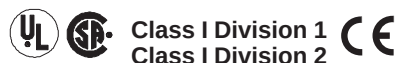
The DTAM Plus operator interface provides an operator interface to PLC-5 and SLC 500 family of processors and to a DeviceNet scanner. This operator interface features a 4-line x 20-character display window for viewing data table information and operator prompts. Use an offline Development Software Package to create display screens. Screens can depict register information, prompt for operator data entry, or facilitate recipe downloading, which let you modify multiple registers with a single keystroke. Alarm screens monitor critical data table registers, prompting the operator for action when out-of-range conditions exist.

Features

- *4-line x 20-character* VFD or backlit LCD display
- *User-Developed Screens* provide menu-type operations, prompting an operator to perform specifications, such as data entry or recipe download based on displayed data table information
- *Configurable Communication Port* supports DH-485 and RS-422/RS-232. Use the DH-485 port to communicate with the SLC processor over the DH-485 network or use the RS-422/RS-232 port to communicate with a 1746-BAS SLC 500 BASIC Module in an RS-422/RS-232 point-to-point link. Use the RS-232/422 port to communicate point-to-point DF1 to any of the enhanced PLC-5 processors through channel 0 or to upload/download programs
- *The Universal Remote I/O version* connects to the SLC remote I/O scanner module or to the PLC-5 processor through its Universal Remote I/O port
- *The DeviceNet version* communicates to the DeviceNet scanner modules
- *Standard Printer Port* on 40K-byte memory models for local printing of forms, data, or alarm conditions
- *Flash Firmware* provides easy downloading of product enhancements and upgrades
- *Bar Code Input* capability lets you input ASCII bar code data using the RS-232 printer port
- *SLC or PLC Controlled Screen Changes* provide additional flexibility in screen navigation

- Available Class I Div 1 rated LCD display, 11 to 13V dc powered unit

Specifications



Class I Division 1
Class I Division 2

Approximate Dimensions	• Height 193.0 mm (7.6 in) • Width 139.7 mm (5.5 in) • Depth 45.7 mm (1.8 in)
Front Panel Size	• Height 215.9 mm (8.5 in) • Width 165.1 mm (6.5 in)
Communication	• Supports Allen-Bradley DH-485 point-to-point or network operations to SLC 500 processors • Supports Allen-Bradley DF1 point-to-point communication with enhanced PLC-5 processors • Supports Universal Remote I/O communication to a PLC-5 processor and to a SLC 500 processor via a 1747-SN remote I/O scanner • Supports DeviceNet communication to a DeviceNet scanner
Memory	• 8K-byte option supports approximately 50 application screens. • 40K-byte option supports approximately 244 application screens.
Display Types	• 4-line by 20-characters • VFD (Vacuum Fluorescent Display) • LCD (Liquid Crystal Display)
Operating Voltages	• 3 Power Supply Ranges • P1 Designation 15-23V ac, 47-440 Hz 20-30V dc 800 mA max., 1A Fuse • P2 Designation 85-265V ac, 47-440 Hz 110-340V dc 300 mA max., ½A Fuse • P4 Designation 11-13V dc 250mA max. ½A Fuse

For more information, see *DTAM Plus Product Data*, pub. [2707-2.0](#).

For ordering information, see page [7-18](#).

Message Displays
DTAM Plus Operator Interface
(Cat. No. 2707 Series)

Ordering Information

Description	Catalog Number
LCD Display, 8K-byte Memory, P1 Power Supply	2707-L8P1
LCD Display, 8K-byte Memory, P2 Power Supply	2707-L8P2
LCD Display, 40K-byte Memory, Printer Port, Real-Time Clock, P1 Power Supply	2707-L40P1
LCD Display, 40K-byte Memory, Printer Port, Real-Time Clock, P2 Power Supply	2707-L40P2
VFD Display, 40K-byte Memory, Printer Port, Real-Time Clock, P1 Power Supply	2707-V40P1
VFD Display, 40K-byte Memory, Printer Port, Real-Time Clock, P2 Power Supply	2707-V40P2
VFD Display, 40K-byte Memory, Printer Port, Real-Time Clock, NEMA Type 4X Rating, P2 Power Supply	2707-V40P2N
Universal Remote I/O, LCD Display, 8K-byte memory, P1 power supply	2707-L8P1R
Universal Remote I/O, LCD Display, 8K-byte memory, P2 power supply	2707-L8P2R
Universal Remote I/O, LCD Display, 40K-byte memory, printer port, real time clock, P1 power supply	2707-L40P1R
Universal Remote I/O, LCD Display, 40K-byte memory, printer port, real time clock, P2 power supply	2707-L40P2R
Universal Remote I/O, VFD Display, 40K-byte memory, printer port, real time clock, P1 power supply	2707-V40P1R
Universal Remote I/O, VFD Display, 40K-byte memory, printer port, real time clock, P2 power supply	2707-V40P2R
Universal Remote I/O, VFD Display, 40K-byte memory, printer port, real time clock, NEMA Type 4X Rating, P2 power supply	2707-V40P2NR
LCD Display, 40K-byte Memory, Real-time Clock, P4 Power Supply, rated Class I Division 1	2707-L40P4
DeviceNet, LCD Display, 8K-byte memory, P1 power supply	2707-L8P1D
DeviceNet, LCD Display, 8K-byte memory, P2 power supply	2707-L8P2D
DeviceNet, LCD Display, 40K-byte memory, printer port, real time clock, P1 power supply	2707-L40P1D
DeviceNet, LCD Display, 40K-byte memory, printer port, real time clock, P2 power supply	2707-L40P2D
DeviceNet, VFD Display, 40K-byte memory, printer port, real time clock, P1 power supply	2707-V40P1D
DeviceNet, VFD Display, 40K-byte memory, printer port, real time clock, P2 power supply	2707-V40P2D
DeviceNet, VFD Display, 40K-byte memory, printer port, real time clock, NEMA Type 4X Rating, P2 power supply	2707-V40P2ND
DH-485 Network Interface Cable interfaces to the Allen-Bradley DH-485 network.	2707-NC1
RS-232 Program Upload/Download Cable connects a personal computer to the DTAM Plus to allow program upload/download.	2707-NC2
DF1 RS-232 Interface Cable interfaces to channel 0 of the PLC-5 processor via RS-232 DF1.	2707-NC3
DF1 RS-422 Interface Cable interfaces to channel 0 of the PLC-5 processor via RS-422 DF1.	2707-NC4
RS-232 Interface Cable for ASCII input	2707-NC6
Off-line Software Development Package (MicroView, DTAM Plus, DTAM Micro)	2707-NP
Off-line Software Development Kit (MicroView)	2707-NP2
Off-line Software Development Package (MicroView, DTAM Plus, DTAM Micro, Siemens AS511 Protocol, Modbus Protocol)	2707-NP3

DTAM Micro Operator Interface

(Cat. Nos. 2707-M485P3, -M232P3, -M232P3D, -NP, -NP3)



The DTAM Micro™ operator interface extends the Bulletin 2707 product line of high-performance operator interfaces to the PLC-5 and SLC 500 family of controllers and to DeviceNet scanners. Smaller in size than the DTAM Plus operator interface, the DTAM Micro operator interface is a low-cost interface for plant-floor control and data monitoring.

There are three versions of DTAM Micro operator interface:

- *DTAM Micro with RS-232 Port* allows point-to-point connections with PLC-5 or SLC 5/03 processors
- *DTAM Micro with DH-485 Port* provides for DH-485 point-to-point or network communication with the SLC 500 family of controllers
- *DTAM Micro with DeviceNet Port* provides for DeviceNet communication with DeviceNet scanners

DTAM Micro applications are created with the same software package as other DTAM Plus products, providing compatibility and a convenient transfer of knowledge within the same product line.

Features

- *Two-line x 20-Character Display* uses LCD technology with fixed LED backlighting
- *Memory Capability* provides storage for up to 244 data display, data entry, recipe and alarm screens, and configuration data
- *Recipe Operations* let operators quickly modify blocks of data. Each recipe screen can download data to 10 non-sequential addresses. Linking screens lets operators download a recipe to additional addresses
- *Membrane Keypad* has 26 color-coded keys for easy identification of key functions
- *Eight Function Keys* provide operators a convenient way to trigger screen displays and control screen navigation. Operators can also use the function keys to set or clear data table bits
- *Point-Access/Display Feature* lets operators monitor or modify data files in SLC or PLC processors, regardless of the programmed screen

- *File Access Options* for SLC controllers include I/O, status, binary, timer, counter, floating point, and integer files. Additional options for the PLC-5 include ASCII, BCD, message and ASCII string files
- *SLC and PLC Controlled Screen Changes* provide additional flexibility in screen navigation by using an Advisor feature

Ordering Information

Description	Catalog Number
DTAM Micro with DH-485 communication port	2707-M485P3
DTAM Micro with RS-232 communication port	2707-M232P3
DTAM Micro with DeviceNet communication port	2707-M232P3D
DTAM Programming Software (DTAM Plus, DTAM Micro, MicroView)	2707-NP
DTAM Programming Software (DTAM Plus, DTAM Micro, MicroView, Siemens AS511 Protocol, Modbus Protocol)	2707-NP3

Accessories and Replacement Parts

Description	Catalog Number
RS-232 to Current Loop Interface Cable - Connects DTAM Micro to Siemens AS511 port	2707-NC12
DeviceNet Interface Cable - Connects DTAM Micro to DeviceNet network with bare wires (for taps and open-style connectors)	2707-NC20
DeviceNet Interface Cable - Connects DTAM Micro to DeviceNet network with female sealed micro connector	2707-NC21
DeviceNet Interface Cable - Connects DTAM Micro to DeviceNet network with male sealed micro connector	2707-NC19
DH-485 Network Interface Cable - Connects DTAM Micro to SLC network	2707-NC1
RS-232 Upload/Download Cable - Connects RS-232 DTAM Micro to RS-232 port of personal computer	2707-NC2
DF1/RS-232 Interface Cable - Connects RS-232 DTAM Micro to channel 0 port of PLC-5 processor	2707-NC3
DF1/RS-422 Interface Cable - Connects DH-485 DTAM Micro to channel 0 port (configured for RS-422) of PLC-5 processor	2707-NC4
DH-485 Upload/Download Cable - Connects DH-485 DTAM Micro to RS-232 port of personal computer	2707-NC5
RS-232 Programmer Cable - Connects RS-232 DTAM Micro to channel 0 port of a SLC 5/03 or 5/04 processor	1747-CP3
120V ac Power Supply - Provides 18 to 30V dc output	1747-NP1
85/285V ac Power Supply - Provides 18 to 30V dc output	1747-NP2

For specifications, see page [7-20](#).

DTAM Micro Operator Interface

(Cat. Nos. 2707-M485P3, -M232P3, -M232P3D, -NP, -NP3)

Specifications   **Class I Div 2 Hazardous** 

Display	
Type	LCD (Liquid Crystal Display) with LED backlighting
Column and character	2 lines x 20 characters
Character size	4.75 x 2.95 mm (0.19 x 0.12 in)
Character format	5 x 8 mm dot matrix
Contrast	Fixed
Display viewing area	25 x 76 mm (1.0 x 3.0 in)
Viewing angle	Horizontal $\pm 30^\circ$, Vertical -20° to $+30^\circ$
Keypad	
Type	Tactile-embossed, domed keys, sealed membrane
Operation force:	453 grams (16 oz)
Operational life	1 million operations
Electrical	
Communication port	• RS-232 • DH-485 • DeviceNet
Input voltage range	• 2707-M232P3, -M485P3: 18-30V dc • 2707-M232P3D: 11-25V dc
Input current	• 2707-M232P3, -M485P3: 200 mA maximum • 2707-M232P3D: 215 mA maximum
Mechanical	
Front panel size	
Height	137.2 mm (5.4 in)
Width	175.3 mm (6.9 in)
Back Dimensions	
Height	99.1 mm (3.9 in)
Width	137.2 mm (5.4 in)
Depth	45.7 mm (1.8 in)
Weight	0.45 kg (1.0 lb) maximum
LED indicator	RUN (green)
Environmental	
Operating temperature	0 to 55° C (32 to 131° F)
Storage temperature	-20 to 70° C (-4 to 158° F)
Relative humidity	5 to 95%, (without condensation)
Shock	30 g (operating)
Vibration	50 g (non-operating)
Certifications	NEMA Type 4, 12, 13 (indoor) Class I Division 2

For more information, see *DTAM Micro Operator Interface Product Data*, publication [2707-2.3](#).



MicroView™ Operator Interface is designed to communicate to the Allen-Bradley MicroLogix™ family of processors using the RS-232 DF1 protocol and to a DeviceNet scanner using the DeviceNet protocol. Smaller in size than the DTAM Micro™ operator interface, the MicroView operator interface is designed for the OEM that wants a low-cost operator interface for plant-floor control and data monitoring.

The programming software simplifies the creation of linked screens including data display, data entry, and recipe screens. Recipe screens let operators download blocks of data. MicroView programming software is available specifically for the MicroView operator interface or as a subset of the DTAM family programming software.

Features

- *MicroView* operator interface supports RS-232 DF1 (point-to-point) communication with the Allen-Bradley family of MicroLogix controllers and supports DeviceNet communication with a DeviceNet scanner
- *Compact size* lets you use the MicroView operator interface in areas of limited space
- *Panel Mount Adapter with connector* allows the hand-held version of the MicroView operator interface to be easily removed for programming or replacement. All wiring is to the adapter, simply plug the MicroView operator interface into the adapter
- *Point-Access/Display Feature* lets operators modify data files in MicroLogix controllers, independently of programmed screens
- *Standard File Access Options* for MicroLogix controllers include I/O, status, binary, timer, counter, control and integer files
- *Memory Capability* allows storage for up to 50 application screens and configuration data
- *2 Function Keys* provide a quick and convenient way to automatically trigger screen displays and control screen navigation. Also, the function keys can be used to set or clear data table bits

Specifications



Display	
Type	LCD (Liquid Crystal Display) with yellow/green LED backlighting
Column and character	Two-line by 16 characters
Character size	5.6 x 3 mm (0.22 x 0.12 in)
Character format	5 x 7 mm dot matrix
Contrast	Fixed
Display viewing area	15 x 60 mm (0.6 x 2.4 in)
Viewing angle	Horizontal ± 30°, Vertical -20° to +30°
Keypad	
Type	Tactile-embossed, domed keys, sealed membrane
Operation force:	453 grams (16 oz)
Operational life	1 million operations
Electrical	
Communication port	• RS-232 • DeviceNet
Input voltage range	11 to 25V dc
Input current	1.5 W maximum (RS-232), 1.8 W maximum (DeviceNet)
Mechanical	
MicroView hand-held operator interface	
Height	129.5 mm (5.1 in)
Width	90.2 mm (3.6 in)
Depth	25.4 mm (1.0 in)
MicroView panel-mount operator interface	
Height	149.9 mm (5.9 in)
Width	119.4 mm (4.7 in)
Depth	25.4 mm (1.0 in)
Panel-mount adapter	
Height	193.6 mm (7.6 in)
Width	119.4 mm (4.7 in)
Depth	38.1 mm (1.5 in)
Environmental	
Operating temperature	0 to 55° C (32 to 131° F)
Storage temperature	-20 to 70° C (-4 to 158° F)
Relative humidity	5 to 95%, (without condensation)
Shock	30 g (operating) 50 g (non-operating)

MicroView Operator Interface

(Cat. Nos. 2707-MVH232, -MVH232D, -MVP232, -MVP232D, -NP2, -NP)

Ordering Information

MicroView Operator Interface and Software

Description	Catalog Number
MicroView Operator Interface, Hand-held	2707-MVH232
MicroView Operator Interface, Panel Mount	2707-MVP232
MicroView Operator Interface, Hand-held, DeviceNet	2707-MVH232D
MicroView Operator Interface, Panel-Mount, DeviceNet	2707-MVP232D
MicroView Programming Software	2707-NP2
DTAM Programming Software (MicroView, DTAM Plus, DTAM Micro)	2707-NP

Accessories and Replacement Parts

Description	Catalog Number
Panel Mount Adapter	2707-MVMNT
RS-232 Upload/Download Cable – connects MicroView to RS-232 Port of a personal computer	2707-NC8
Communication Cable (15 meter) – connects MicroView to MicroLogix Controller	2707-NC9
Communication Cable (2 meter) - connects DTAM Micro to MicroLogix Controller	2707-NC10
Communication Cable (2 Meter) – connects MicroView to MicroLogix controller	2707-NC11
Communication Cable with bare wires (1 meter) - connects MicroView to DeviceNet network	2707-NC13
Communication Cable with female microconnector (1 meter) - connects MicroView to DeviceNet network	2707-NC14
Communication Cable with male microconnector (1 meter) - connects MicroView to DeviceNet network	2707-NC15
120V ac Power Supply – provides dc output for application transfers ¹	2707-PS120
220V ac Power Supply – provides dc output for application transfers ¹	2707-PS220

¹ Power supply is not required for standard operation. MicroLogix controller provides 24V dc to the MicroView operator interface via communication cable.



The DeviceView Configurator configures and troubleshoots DeviceNet products ranging from photoeyes to drives. The DeviceView Configurator can be powered from 120V ac, 220V ac, or from the network.

The DeviceView Configurator has multiple modes that can leverage the use of EDS files, can streamline initial node commissioning, and can even configure devices that have no EDS file or other documentation.

Features

- **Node Commissioning Mode** lets the user assign a communication rate and node address to a device to get it running in a few seconds.
- **Enhanced Mode** leverages the use of a vendor-supplied EDS file. Each parameter is labeled, so that even the novice user can edit device attributes.
- **Basic Mode** enables the user to access the network and device attributes without a vendor-supplied EDS file.
- **Autobaud** automatically sets the DeviceView Configurator communication rate to match the rate of the DeviceNet network when the configurator is connected to it.
- **Flexible Power Supplies** lets the DeviceView Configurator function with input power of 120 or 220V ac, or 24V dc supplied by the DeviceNet network.
- **Menu-Driven Functions** help the user operate the DeviceView Configurator efficiently and quickly.
- **Display** presents information that guides the user through the menu system. Symbols in the display indicate whether the DeviceView Configurator is Online or Offline or if there is a problem with the connection.
- **Downloader Software** lets the user download EDS files into the configurator's flash memory.
- **Flash Memory** holds up to 31 EDS files, depending on file sizes. When flash memory is full, the user can delete selected files to make room for new ones.

Specifications



Class I Div 2 Hazardous

Display type	LCD with Yellow-Green LED Backlighting
Column and character	2 lines x 16 characters
Character size	5.56 x 2.96 mm (0.22 x 0.12 in)
Viewing area	15mm x 60 mm (0.58 x 2.35 in)
Viewing angle	Horizontal 30° Vertical -20 to + 30°
Keypad	Tactile embossed, domed keys, sealed membrane Operation Force: • 453 gm (16 oz) • Operational Life: 1 million operations ¹
Communication	• RS-232 communication port • RS-232 communication distance: 15m (50 ft) maximum • DeviceNet (selectable 125k, 250k, 500k bit/s)
Electrical	Input voltage range: 11-25V dc Input power, typical: 1.8 W Input current: • 164mA @ 11V • 72mA @ 25V
Environmental	Operating temperature: 0° to 55° C (32° to 131° F) Storage temperature: -20° to 70° C (-4° to 158° F) Humidity: 5 to 95% (without condensation) Shock: • Operating 30g • Non-operating 50g
Dimensions	Height 129.5 mm (5.1 in) Width: 90.2 mm (3.55 in) Depth: 24.8 mm (0.975 in)
Weight	0.2 kg (0.44 lb)
Communication connection	8-pin female C DIN connector

Ordering Information

Description	Catalog Number
DeviceView Configurator	2707-DNC
DeviceView Downloader Software	2707-DP1
1 meter Network cable with bare leads	2707-NC13
1 meter Network cable with Micro-connector (female)	2707-NC14
1 meter Network cable with Micro-connector (male)	2707-NC15
Upload/download cable	2707-NC8
120V ac power supply, ac to dc adapter	2707-PS120
220V ac power supply, ac to dc adapter	2707-PS220

Electronic Push-Button Modules

RediPANEL Operator Modules

(Cat. No. 2705 Series)



RediPANEL Operator Modules eliminate the time and expense of installing and wiring individual push buttons. They combine an assortment of push buttons, keypads, displays, wiring combinations, I/O modules, power supplies, and/or network interfaces, all into one single, pre-packaged ready-to-use unit.

They are a quick, economical way to simplify panel fabrication from design through testing.

Features

Many RediPANEL products are available for different applications. They can be grouped into the following general categories:

Push-Button I/O Panels — Use a Universal Remote I/O link to connect Membrane, 800A, 800EM, or 800EP push buttons to PLC or SLC systems.

Keypad Panels — Use a Universal Remote I/O link to connect alphanumeric display, data entry keypad, function key inputs, and LED indicators to PLC or SLC systems.

Plug & Go Panels — Use parallel cables to connect 800A push buttons to PLC or SLC I/O modules.

Specifications

The following information is listed for each product:

- NEMA (and IEC) listing
- Temperature range
- Humidity range
- Voltage and frequency range
- Communication type

All products are UL listed for Hazardous locations Class I, Division 2, Groups A, B, C, and D.

Types

RediPANEL products are available as described below:

- Standard units
- Standard units with options
- Custom units

Standard units and standard units with options are covered in this catalog.

Custom units allow the specific type of push-button device in the panel to be specified. Depending on the type of RediPANEL base unit, illuminated or non-illuminated push buttons, selector switches and pilot lights can be specified. Custom panel ordering and pricing is explained in publication 2705-3.3.

RediPANEL table of contents	Page
Push-Button Universal Remote I/O Products	7-25
Membrane	7-25
800A	7-26
800EM	7-28
800EP	7-30
Keypad Products	7-32
Plug & Go Cable Connection Products	7-33
Accessories	7-34

The Bulletin 2705 Push-Button RediPANEL modules are equipped with either Membrane, 800A, 800EM, or 800EP push button devices used in conjunction with various combinations of interface circuitry, power supplies, and network circuitry. Almost every conceivable push button operator interface application can be met with the large variety of sizes, types of operators, and environmental ratings available.

Membrane

The Membrane RediPANEL modules can be used for many applications. The panel features 16 membrane switches in a single unit, protecting against airborne materials. Membrane panels also have 16 red LED indicators. The panels are approved for NEMA Type 4X (IP66) indoor applications. Legend inserts for membrane switches are available in red, green, amber, blue, and white.

Specifications

Item	Description
Standard push buttons	Membrane
NEMA (IEC) rating	Type 4/4X indoor only (IP66)
Temperature range	
Operating	0 to 60° C (+32 to +140° F)
Storage	-40 to 85° C (-40 to +184° F)
Humidity	5 to 95% (without condensation)
Power Supply	120/240V ac, 50/60 Hz (range 85 to 264V ac) Option: 24V dc (range 18 to 30V dc)
Communication	Universal Remote I/O (selectable 57.6k, 115.2k, 230.4k bit/s)

Membrane RediPANEL Standard Units

Item	Description	Catalog No.
	16 Membrane Buttons with 16 Red LEDs	2705-P21C1

Selection Configurator

2705 – **P21** **C1**
 a *b*

<i>a</i>	
Type of Unit	
Code	Description
P21	16 Button Membrane

<i>b</i>	
Power Supply	
Code	Description
C1	120/240V ac (Standard)
C2	24V dc

800A

These compact push-button RediPANEL modules use 16 mm 800A Backlit push buttons in 8-, 16-, or 32-button units. They are ideal for light industrial or instrument grade applications.

Specifications

Item	Description
Standard push buttons	800A Backlit Push Buttons 8-button unit — 800A-C2D □12 16-button unit — 800A-C2D □12 32-button unit — 800A-C2C □12
NEMA (IEC) rating	Type 12/13 (IP65)
Temperature range	
Operating	0 to 45° C (32 to 113° F)
Storage	-40 to 85° C (-40 to 184° F)
Humidity	5 to 95% (without condensation)
Power Supply	120/240V ac, 50/60 Hz (range 85 to 264V ac) Option: 24V dc (range 18 to 30V dc)
Communication	Universal Remote I/O (selectable 57.6k, 115.2k, 230.4k bit/s)

800A RediPANEL Standard Units

Item	Description	Catalog No.
	8 Buttons Standard button configuration: 4 Green 4 Red	2705-P31J1
	16 Buttons Standard button configuration: 6 Green 6 Red 4 Amber	2705-P21J1

800A (continued)

800A RediPANEL Standard Units (continued)

Item	Description	Catalog No.
	32 Buttons Standard button configuration: 8 Green 8 Red 8 Amber 8 White	2705-P11J1

Selection Configurator

2705 – **P31J** **1** _____
 a *b* *c*

a

Type of Unit	
Code	Description
P31J	8-Button Unit
P21J	16-Button Unit
P11J	32-Button Unit
P32J	8-Button Class-I Division-2 Unit
P22J	16-Button Class-I Division-2 Unit
P12J	32-Button Class-I Division-2 Unit

b

Power Supply	
Code	Description
1	120/240V ac (Standard)
2	24V dc

c

Lamps	
Code	Description
Blank	Incandescent (Standard)
L	8 Button LED (Type, 4 Green, 4 Red)
	16Button LED (6 Green, 6 Red, 2-Green - 2 Red)
	32 Button LED (16 Green, 8 Red, 8 Amber)

Electronic Push-Button Modules

RediPANEL Operator Modules

Push-Button Universal Remote I/O Products

800EM

These RediPANEL modules use rugged 22.5 mm 800EM push buttons and are ideal for many industrial applications.

Specifications

Item	Description
Standard push buttons	800EM Illuminated Push Buttons, 800EM-LF-4DL3X10V
NEMA (IEC) rating	Type 12/13 (IP65)
Temperature range	
Operating	0 to 40 ° C (+32 to 104° F)
Storage	-40 to 85° C (-40 to 184° F)
Humidity	5 to 95% (without condensation)
Power Supply	120/240V ac, 50/60 Hz (range 85 to 264V ac) Option: 24V dc (range 18 to 30V dc)
Communication	Universal Remote I/O (selectable 57.6k, 115.2k, 230.4k bit/s)

800EM RediPANEL Standard Units

Item	Description	Catalog No.
	16 Buttons Standard Button Configuration: 6 Green 6 Red 4 Amber	2705-EM21J1
	32 Buttons Standard Button Configuration: 16 Green 8 Red 8 Amber	2705-EM11J1

800EM (continued)

Selection Configurator

2705 – **EM2** **1** **J** **1**
 a *b* *c* *d* *e*

a

Type of Unit	
Code	Description
EM2	16-Button Unit
EM1	32-Button Unit

b

Push Buttons	
Code	Description
1	800EM Illuminated Push Buttons (std.) ¹

¹ Custom configuration is available. Contact your local sales office.

c

Mounting	
Code	Description
J	Units mounted on front plate (standard)
JE	Units mounted in NEMA Type 12/13 enclosure — 16 button
	Units mounted in NEMA Type 12/13 enclosure — 32 button

d

Power Supply	
Code	Description
1	120/240V ac (Standard)
2	24V dc

e

Lamps (800E Type)	
Code	Description
Blank	Incandescent (Standard)
L	16 Button LED (6 Green, 6 Red, 2 Green - 2 Red)
	32 Button LED (16 Green, 8 Red, 8 Amber)

800EP

These RediPANEL operator modules use quality 800EP push buttons in 16- or 32-button units. RediPanels are ideal for industrial applications with harsh environments, such as caustic washdown and salt spray.

Specifications

Item	Description
Standard push buttons	800EP Backlit Push Buttons
NEMA (IEC) rating	Type 4/4X (IP66)
Temperature range Operating Storage	0 to 40° C (32 to 104° F) -40 to 85° C (-40 to 184° F)
Humidity	5 to 95% (without condensation)
Power Supply	120/240V ac, 50/60 Hz (range 85 to 264V ac) Option: 24V dc (range 18 to 30V dc)
Communication	Universal Remote I/O (selectable 57.6k, 115.2k, 230.4k bit/s)

800EP RediPANEL Standard Units

Item	Description	Catalog No.
	16 Buttons Standard Button Configuration: 6 Green 6 Red 4 Amber Fiberglass enclosure	2705-EP21SE1
	32 Buttons Standard Button Configuration: 16 Green 8 Red 8 Amber Stainless steel faceplate	2705-EP11S1

800EP (continued)

Selection Configurator

2705 – **EP2** **1** **S** **1**
 a *b* *c* *d* *e*

a

Type of Unit	
Code	Description
EP2	16-Button Unit
EP1	32-Button Unit

b

Push Buttons	
Code	Description
1	800EP Backlit Push Buttons (std.) ¹
¹ Custom configuration is available. Contact your local sales office.	

c

Mounting	
Code	Description
S	Units mounted on front plate (standard) stainless steel
SE	Units mounted in NEMA Type 4/4X reinforced polycarbonate enclosure — 16 button
	Units mounted in NEMA Type 4/4X reinforced polycarbonate enclosure — 32 button

d

Power Supply	
Code	Description
1	120/240V ac (Standard)
2	24V dc

e

Lamps (800E Type)	
Code	Description
Blank	Incandescent (Standard)
L	16 Button LED (6 Green, 6 Red, 2 Green - 2 Red)
	32 Button LED (16 Green, 8 Red, 8 Amber)

Electronic Push-Button Modules

RediPANEL Operator Modules

Keypad Products

Bulletin 2705 Keypad RediPANEL modules combine an assortment of push-button inputs, LED indicators, numeric keypads, and alphanumeric displays in conjunction with a power supply and network interface.

These combinations of operator inputs and display outputs combine discrete push buttons and operators with an economical and easily understood operator interface for applications that require some numeric value input and/or display outputs.

Keypad modules are rated as NEMA Type 4X. Other significant features include:

- Selectable data types: binary, integer, BCD, or ASCII

- Message storage and editing
- Self-test diagnostics
- Variable or fixed decimal point

An optional Off-line Keypad Programming Software Package, for message development, off-line storage, and transfer with an IBM compatible personal computer, is offered.

The Keypad panel, designed to interface with a PLC program for data monitoring or control change functions, consists of a one-line 16-character 14-segment alphanumeric vacuum fluorescent display with a membrane keypad. The keypad includes a numeric keypad, 6 Function keys with red LED indicators, one Enter key, and one Delete key.

Specifications

Item	Description
NEMA (IEC) rating	Type 4/4X (IP66)
Temperature range Operating Storage	0 to 60° C (+32 to 140° F) -40 to 85° C (-40 to 184° F)
Humidity	5 to 95% (without condensation)
Power Supply	120/240V ac, 50/60 Hz (range 85 to 264V ac) Option: 24V dc (range 18 to 30V dc)
Communication	Universal Remote I/O (selectable 57.6k, 115.2k, 230.4k bit/s)

Keypad RediPANEL Standard Equipment

Item	Description	Catalog No.
	Keypad Panel	2705-K11C1
	Keypad Programming Software [interface included (RS-232 to keyboard)]	2705-ND1

Selection Configurator

2705 – **K11** **C1**
a *b*

<i>a</i> Type of Unit	
Code	Description
K11	NEMA 4/4X (Indoor) Unit
K12	Class I Division 2 Unit

<i>b</i> Power Supply	
Code	Description
C1	120/240V ac (Standard)
C2	24V dc

The Bulletin 2705 Plug & Go RediPANEL modules combine LED illuminated Bulletin 800A push buttons in a pre-assembled operator interface unit. When used with Bulletin 1492 Wiring System cables and high-density PLC or SLC I/O Modules, Plug & Go RediPANEL products are a simple and cost-effective solution for operator interface needs.

Specifications

Item	Description
Standard push buttons	800A Backlit push buttons 16 button unit — 800A-C2D□4L 32 button unit — 800A-C2C□4L
NEMA (IEC) rating	Type 12/13 (IP 65)
Temperature range	
Operating	-20 to 45° C (-4 to +113° F)
Storage	-40 to 85° C (-40 to +184° F)
Humidity	5 to 95% (without condensation)
Power Supply	24V dc ± 10%
Communication	1492 Wiring System cables to PLC or SLC I/O modules ¹

¹ See Plug & Go Accessories (page 7-34) for cable catalog numbers.

Plug & Go RediPANEL Standard Units

Item	Description	Catalog No.
	16 Buttons Standard Button Configuration: 6 Green 6 Red 2 Red - 2 Green	2705-APG16
	32 Buttons Standard Button Configuration: 8 Green 8 Amber 8 Red 8 Green	2705-APG32

Selection Configurator

2705 – **APG16**

a

a

Type of Unit	
Code	Description
APG16	16 Button Unit
APG32	32 Button Unit

Electronic Push-Button Modules

RediPANEL Operator Modules

Accessories

Plug & Go Accessories

Bulletin 1492 Wiring System cables are used to connect the Plug & Go RediPANEL products to either the PLC or SLC I/O Modules.

The compatible cables are listed below.

Catalog Number	PLC/SLC	Connects To	Catalog Number
2705-APG16 (16 Button)	PLC	Input Module	1492-CABLE①F
		Output Module	1492-CABLE①F
2705-APG32 (32 Button)	PLC	Input Module	1492-CABLE①J
		Output Module	1492-CABLE①L
2705-APG16 (16 Button)	SLC	Input Module	1492-CABLE①B
		Output Module	1492-CABLE①E
2705-APG32 (32 Button)	SLC	Input Module	1492-CABLE①H
		Output Module	1492-CABLE①H

① Cables are available in 1.0m, 2.5m, and 5.0m lengths. To order cable, insert the following length code into the the catalog number: 10=1.0, 25=2.5, and 50=5.0m. For example, 1492-CABLE25H is a 2.5m cable for I/O module 1746-OB32 or 1746-IB32.

Membrane Accessories

Description	Type	Catalog No.
Membrane Push Button Module Legend Kit — Includes 5 sheets of inserts	one insert sheet each of green, red, blue, yellow, and white	2705-N3
	five blue insert sheets	2705-N3B
	five red insert sheets	2705-N3R
	five green insert sheets	2705-N3G
	five yellow insert sheets	2705-N3Y
	five white insert sheets	2705-N3W
Mounting Straps (for series E or earlier)	two replacement mounting straps	46703-398-51

800A Accessories

Description	Type	Catalog No.
Modification/Replacement Kit — This kit is used to replace Bulletin 800A devices in the Bulletin 2705 RediPANEL push button panels to meet specific customer requirements.	Includes three alignment fixtures and a Bulletin 800A locking wrench. Each fixture will align the pins on 8, 16, or 32 Bulletin 800A devices with the PC board sockets. RediPANEL push button panels may be modified with any combination of illuminated push buttons or 2 position selector switch 800A devices.	2705-N1
Lamp Tool — Packaged with each panel	Lamp installation and removal tool	800M-N5
Replacement Lamps — Incandescent	12V ANSI #73 incandescent lamps	800M-N16
Replacement Lamps — 12V dc LED ¹	Red, replacement lamps	800T-N61R
	Green, replacement lamps	800T-N61G
	Amber, replacement lamps	800T-N61A
Incandescent to LED Conversion Kits — Changes the printed circuit board with sockets to allow conversion from Incandescent to LED lamps.	8-button panel conversion kit	2705-NLU3
	16-button panel conversion kit	2705-NLU2
	32-button panel conversion kit	2705-NLU1
Mounting Straps (for series D or earlier)	two replacement mounting straps	46703-398-51

¹ LED replacement bulbs should only be used with LED panels.

800EM/EP Accessories

Description	Type	Catalog No.
Lamp Tool — Packaged with each panel	Lamp installation and removal tool	800E-ALR1
Replacement Lamps — Incandescent	24V ANSI #757 incandescent lamps	800E-N157
	Red, replacement lamps	800E-N157R
Replacement Lamps — 24V dc LED ¹	Green, replacement lamps	800E-N157G
	Amber, replacement lamps	800E-N157A

¹ Sold in multiples of 5.

Electronic Push-Button Modules
DeviceNet RediSTATION Operator Interface
 (Cat. Nos. 2705-T3DN1A42A, -T3DN1B42A)



The DeviceNet RediSTATION operator interface is a push-button, pilot-light, and selector-switch unit that can communicate on the DeviceNet network.

Features **Class I Div 2 Hazardous**

DeviceNet features are:

- Quick error-proof connection with mini quick disconnect
- Indication of network operation, panel operation, and burned out or missing bulb
- Switch configuration of node address, communication rate, flashing-pilot-light frequency
- Input status on state of outputs normal or flash from network

DeviceNet RediSTATION operator interface features are:

- Three 800T devices in a pre-assembled three-hole station or “build your own”
- Open-style that accommodates most standard push buttons, selector switches, or pilot lights that may be used in any position
- Flash option on pilot-light output

Ordering Information

Description	Catalog Number
Standard configuration (stop push button, start push button, pilot light) with mini DeviceNet connector	2705-T3DN1A42A
Standard configuration (stop push button, start push button, pilot light) with open-style DeviceNet terminal connector	2705-T3DN1B42A
Three-hole custom configuration with mini DeviceNet connector	2705-T3DN1A42X
Three-hole custom configuration with open-style DeviceNet terminal connector	2705-T3DN1B42X
DeviceNet interface communication board [with I/O connector cables and DeviceNet PCB terminal block connector, (4) 24V dc input, (2) 24V dc output] with open-style DeviceNet terminal connector	2705-DN42



The PanelView 900™ Operator Terminals provide operator interface capabilities in space-saving, flat-panel designs. Offering optimum viewing angles, these electronic operator interfaces feature pixel graphics and high-performance functionality in both color and monochrome displays.

Performance functionality including enhanced alarms, floating-point support and on-line printing maximizes performance strengths within the small form factor.

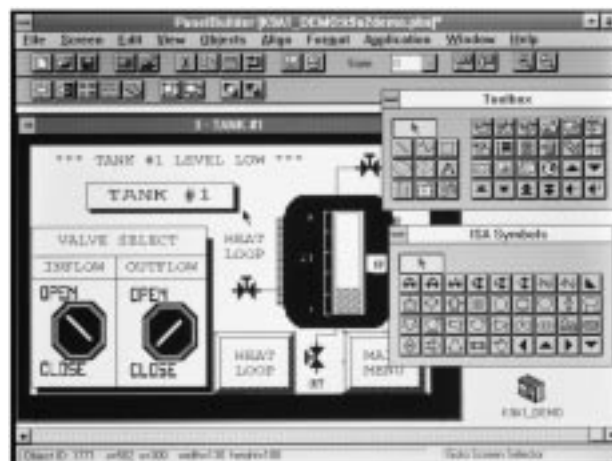
PanelBuilder 900 Configuration Software (cat. no. 2711-ND3) supports the full range of PanelView flat-panel products, allowing easy conversion and reuse of previously created applications. To simplify application design and reduce development costs, the PanelBuilder 900 software uses the graphical interface of the Microsoft® Windows™ operating system.

Screen configuration is easy using such tools as symbols, objects, graphics, and imported bitmap images. Cut, copy, paste and tag import/export capabilities in and between various PanelView 900 applications offer additional time saving advantages.

Available in three versions, PanelView 900 terminals are ideal for both PLC and SLC controller applications.

- **Remote I/O Terminal** – connects to a PLC or SLC ¹ controller on the Universal Remote I/O link, supporting both discrete and block transfer of data. Remote I/O terminal supports remote I/O pass-through.
- **DH-485 Terminal** – connects to a single SLC 500™ processor or multiple SLC 500 processors on the Allen-Bradley DH-485 network. Direct access to all SLC 500 data files minimizes ladder logic. The DH-485 terminal supports DH-485 point-to-point or network transfers, and it supports the MicroLogix 1000 controllers.
- **RS-232 Terminal** – connects directly to the Channel 0 Port of an SLC 5/03 or 5/04 controller using DH-485 protocol. The RS-232 terminal provides a dedicated DH-485 connection for high-priority data. The RS-232 terminal supports Pass-through from the DH+ network to the PanelView 900 through Port 0 of an SLC 5/04 controller, and it supports the MicroLogix 1000 controller.

¹ Requires 1747-SN scanner, series A or B.



Features

- **Keypad or Touch Screen** terminals offer convenient and flexible choices for operator input. Operators enter input using 16 configurable function keys and a numeric keypad or by simply selecting graphic symbols on a touch screen.
- **Pixel Graphic Display** enhances operator screens. Available in both color and monochrome displays, the 900 terminals are designed with display technologies offering minimal depth with maximum view angles.

The 8.4 inch color VGA display features active matrix thin film transistor (TFT) technology and the monochrome version offers a 9.8 inch AC gas plasma display with 640 x 400 resolution.
- **Full Complement of Operator Devices** to create screens including push buttons, selectors, numeric entry devices, diagnostic indicators, message displays, embedded numeric and ASCII variable displays, custom graphics and more.
- **Extensive Alarm Capabilities** include an Alarm History to record and display important data on triggered alarms, with additional options for printing or clearing the History.

Alarm Banner notifies the operator when an alarm occurs by displaying a message and buttons for responding to the alarm. Depending on how the application is designed, the operator can acknowledge all alarms, a single alarm, print an alarm, or clear an alarm.
- **Optional RS-232 Printer Port** lets the operator print alarms, the alarm history, triggered messages, and triggered states of a multistate indicator.
- **Replaceable Backlight** makes field replacements easy and extends the life of the PanelView 900 color terminals. The monochrome PanelView 900 terminal has an emissive display and does not require a backlight source.

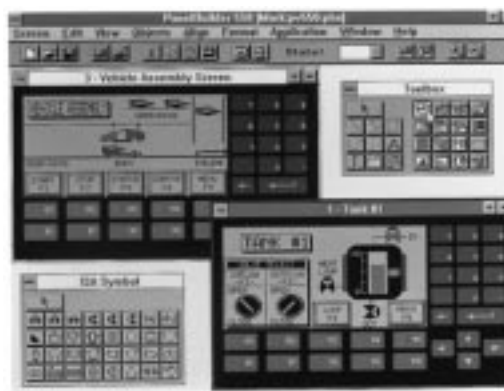
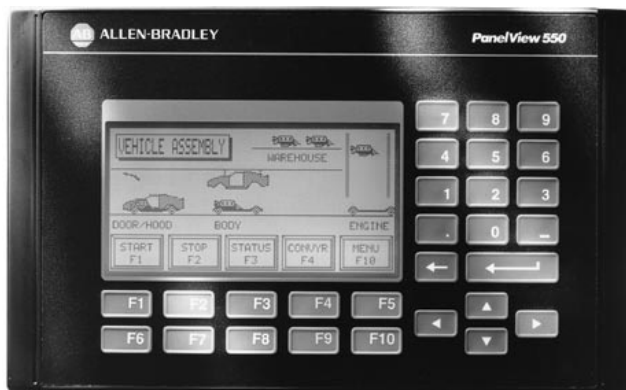
For specifications, see page 7-38.

For ordering information, see page 7-39.

For PanelView 550 information, see page 7-37.

PanelView 900 and PanelView 550 Operator Terminals and Software

(Cat. Nos. 2711 Series)



The PanelView 550™ Operator Terminal provides a high-performance operator interface in a small, flat-panel design. Using the latest operator interface technology, the PanelView 550 terminal is optimized for value and ease-of-use.

Performance functionality including enhanced alarms, floating-point support, and online printing maximizes performance strengths within the small form factor.

PanelBuilder™ 550 Configuration Software (cat. no. 2711-ND2) takes advantage of the Microsoft Windows graphical interface, simplifying application design and reducing development costs.

Screen configuration is easy using preconfigured symbols, dynamic objects, graphics and imported bitmaps. Other convenient features include the ability to copy screens and objects between DH-485 and Universal Remote I/O applications and the compatibility of PanelBuilder 550 software with other Microsoft Windows applications.

An upgrade utility is available to upgrade PanelBuilder 550 to PanelBuilder 900 software allowing you to create applications for both the PanelView 550 and 900 terminals with complete compatibility between both (cat. no. 2711-ND2ND3).

Like the PanelView 900 terminal, the PanelView 550 terminal is available in three versions, supporting communication with PLC or SLC applications.

- **Remote I/O Terminal** connects to a PLC or SLC ¹ controller on the Universal Remote I/O link, supporting both discrete and block transfer of data. The remote I/O terminal supports remote I/O pass-through.
- **DH-485 Terminal** connects to a single SLC 500 processor or multiple SLC 500 processors on the Allen-Bradley DH-485 network. Direct access to all SLC 500 data files minimizes ladder logic. The DH-485 terminal supports DH-485 point-to-point or network transfers, and it supports the MicroLogix 1000™ controller.
- **RS-232 Terminal** connects directly to the Channel 0 port of an SLC 5/03 or 5/04 controller using DH-485 protocol. The RS-232 terminal provides a dedicated DH-485 connection for high-priority data. The RS-232 terminal supports pass-through from the DH+ network to the PanelView 550 through Port 0 of an SLC 5/04 controller, and it supports the MicroLogix 1000™ controller.

¹ Requires 1747-SN scanner, series A or B.

Features

- **Keypad or Combination Touch Screen and Keypad** terminals offer convenient and flexible choices for operator input. Operators enter input using 10 configurable function keys and a numeric keypad or by simply touching graphic symbols on a touch screen.
- **Pixel Graphic Display** enhances operator screens. The flat-panel, LCD display has 256 x 128 pixel resolution.
- **Full Complement of Operator Devices** to create screens including push buttons, selectors, numeric entry devices, diagnostic indicators, message displays, embedded numeric and ASCII variable displays, custom graphics and more.
- **Extensive Alarm Capabilities** include an Alarm History to record and display important data on triggered alarms, with additional options for printing or clearing the History.

Alarm Banner notifies the operator when an alarm occurs by displaying a message and buttons for responding to the alarm. Depending on how the application is designed, the operator can acknowledge all alarms, a single alarm, print an alarm, or clear an alarm.

- **Optional RS-232 Printer Port** provides the operator with the ability to print alarms, the alarm history, triggered messages and triggered states of a multistate indicator.
- **Field Replaceable Backlight** extends lifetime of terminal and maximizes system up time.
- **Transfer Applications** between your computer and a PanelView 550 terminal using a serial connection, DH-485 network connection, pass-through from a computer on the Allen-Bradley DH+ network, or a PC memory card. The memory card facilitates transfers on the plant floor without a computer.

For specifications, see page [7-38](#).

For ordering information, see page [7-39](#).

PanelView 900 and PanelView 550 Operator Terminals and Software

(Cat. No. 2711 Series)

Specifications



Class I Div 2 Hazardous



	PanelView 900 Color Display	PanelView 900 Monochrome Display	PanelView 550 Monochrome Display
Display			
Type	Active Matrix Thin Film Transistor (TFT)	AC Gas Plasma	Liquid Crystal Display (LCD)
Size	VGA 640 x 480 pixels 171 mm (w) x 130 mm (h) 6.73 in. (w) x 5.12 in. (h)	640 x 400 pixels 210 mm (w) x 131 mm (h) 8.27 in. (w) x 5.17 in. (h)	256 x 128 pixels 122 mm (w) x 66 mm (h) 4.8 in. (w) x 2.6 in. (h)
Replaceable Backlight	Field-replaceable backlight	Not required – emissive display	Field-replaceable backlight
Touch Cells (touch screens)	384	384	128
Application Memory	240K-byte Flash (application screens) 768K-byte Flash (text and bitmaps)	240K-byte Flash (application screens)	114K-byte Flash (application screens)
Keypad Front Panel Design			
Keypad	Stainless steel domed membrane	Stainless steel domed membrane	Stainless steel domed membrane
Function Keys	16 (F1 – F16)	16 (F1 – F16)	10 (F1 – F10)
Operational Life	1 million cycles minimum	1 million cycles minimum	1 million cycles minimum
Electrical			
Communication Port	Remote I/O, DH-485, RS-232 (DH-485)	Remote I/O, DH-485, or RS-232 (DH-485)	Remote I/O, DH-485, or RS-232 (DH-485)
RS-232 Printer Port	1200, 2400, 9600, 19200 baud rate	1200, 2400, 9600, 19200 baud rate	1200, 2400, 9600, 19200 baud rate
AC Power Requirements	85 to 264V ac absolute, 47 to 63 Hz	85 to 264V ac absolute, 47 to 63 Hz	85 to 264V ac absolute, 47 to 63 Hz
AC Power Consumption	110 VA maximum	110 VA maximum	45 VA maximum
DC Power Requirements	N/A	N/A	18 to 30V dc (24V dc nominal)
DC Power Consumption	N/A	N/A	12 Watts max. (0.5A @ 24V dc)
Environmental			
Operating Temperature	0 to 55° C (32 to 131° F)	0 to 50° C (32 to 122° F)	0 to 55° C (32 to 131° F)
Storage Temperature	–25 to 70° C (–13 to 158° F)	–25 to 70° C (–13 to 158° F)	–20 to 70° C (–4 to 158° F)
Humidity Rating	5 to 95% (without condensation) @ 0 to 55° C (32 to 131° F)	5 to 85% (without condensation) @ 0 to 30° C (32 to 86° F)	5 to 95% (without condensation) @ 0 to 30° C (32 to 86° F)
Ratings	NEMA TYPE 12, 13, 4X (indoor only), IP54, IP65	NEMA TYPE 12, 13, 4X (indoor only), IP54, IP65	NEMA TYPE 12, 13, 4X (indoor only), IP54, IP65
Certifications	CSA Certified CSA Class I, Div 2, Groups A, B, C, D UL Listed CE marked for all applicable directives	CSA Certified CSA Class I, Div 2, Groups A, B, C, D UL Listed CE marked for all applicable directives	CSA Certified CSA Class I, Div 2, Groups A, B, C, D UL Listed CE marked for all applicable directives
Weight			
Keypad	3.18 kg (7.0 lbs.)	3.14 kg (6.9 lbs.)	1.2 kg (2.7 lbs.)
Touch Screen	2.95 kg (6.5 lbs.)	2.91 kg (6.4 lbs.)	1.2 kg (2.7 lbs.)
Dimensions			
Keypad	249 mm (h) x 406 mm (w) x 112 mm (d) 9.80 in. x 15.97 in. x 4.40 in.	249 mm (h) x 406 mm (w) x 112 mm (d) 9.80 in. x 15.97 in. x 4.40 in.	167 mm (h) x 266 mm (w) x 106 mm (d) 6.57 in. x 10.47 in. x 4.17 in.
Touch Screen	249 mm (h) x 336 mm (w) x 112 mm (d) 9.80 in. x 13.24 in. x 4.40 in.	249 mm (h) x 336 mm (w) x 112 mm (d) 9.80 in. x 13.24 in. x 4.40 in.	167 mm (h) x 266 mm (w) x 106 mm (d) 6.57 in. x 10.47 in. x 4.17 in.

Functionality

Push Buttons and Selector Switches

Momentary NO, NC
Maintained
Latched
Multistate
Control List Selector

Screen Selectors

Go to Screen Button
Previous Screen Button
Screen Selector
Go To Config Screen Button

Data Entry

Numeric Keypad
Numeric Entry Cursor Point
Keypad Enable

Information Displays

Bar Graph
Message Display
Multistate Indicator
Numeric Data Display
List Indicator
Time and Date Displays
ASCII Display
Print Only Messages

Alarm Diagnostics

Alarm Banner
Alarm History
Clear History Button
Print History Button
Acknowledge Alarm Button
Clear Alarm Button
Print Alarm Button
Acknowledge All Alarms Button

Graphics

Line/Connected Line
Rectangle
Circle/Ellipse
Freeform Drawings
ISA Symbols
Custom Graphics
Text

Graphic Terminals

PanelView 900 and PanelView 550 Operator Terminals and Software

(Cat. No. 2711 Series)

Ordering Information

PanelView 900 Color Terminals	Catalog Number Keypad Terminal	Catalog Number Touch Terminal
PanelView 900 Color, DH-485 Communication and RS-232 Printer Port ①	2711-K9C3	2711-T9C3
PanelView 900 Color, RS-232 (DH-485) Communication and RS-232 Printer Port	2711-K9C9	2711-T9C9
PanelView 900 Color, Universal Remote I/O Communication and RS-232 Printer Port	2711-K9C1	2711-T9C1

PanelView 900 Monochrome Terminals	Catalog Number Keypad Terminal	Catalog Number Touch Terminal
PanelView 900 Monochrome, DH-485 Communication Ports ①	2711-K9A2	2711-T9A2
PanelView 900 Monochrome, DH-485 Communication and RS-232 Printer Port ①	2711-K9A3	2711-T9A3
PanelView 900 Monochrome, RS-232 (DH-485) Communication Port	2711-K9A5	2711-T9A5
PanelView 900 Monochrome, RS-232 (DH-485) Communication and RS-232 Printer Port	2711-K9A9	2711-T9A9
PanelView 900 Monochrome, Universal Remote I/O Communication and RS-232 Printer Port	2711-K9A1	2711-T9A1

PanelView 550 Terminals	Catalog Number ② Keypad Terminal	Catalog Number ② Touch Terminal
PanelView 550, DH-485 Communication Ports ①	2711-K5A2	2711-B5A2
PanelView 550, DH-485 Communication & RS-232 Printer Port ①	2711-K5A3	2711-B5A3
PanelView 550, RS-232 (DH-485) Communication Port	2711-K5A5	2711-B5A5
PanelView 550, RS-232 (DH-485) Communication & RS-232 Printer Port	2711-K5A9	2711-B5A9
PanelView 550, Universal Remote I/O Communication & RS-232 Printer Port	2711-K5A1	2711-B5A1

① Requires Interface Converter (cat. no. 1747-PIC) and cable (cat. no. 1747-C10 or -C20) for application transfers using the Configuration Software or the File Transfer Utility. Also see Power Supply (cat. no. 1747-NP1) below.

② Add L1 to the catalog number to order the PanelView 550 terminal with dc power instead of ac power.

Software	Catalog Number
PanelBuilder 550 Configuration Software for PanelView 550 Terminals	2711-ND2
PanelBuilder 900 Configuration Software for PanelView 550 and 900 Terminals	2711-ND3
PanelBuilder 550 to 900 Software Upgrade Utility	2711-ND2ND3

Accessories and Replacement Parts	Catalog Number
256K-byte PC Flash Memory Card	2711-NM11
1M-byte PC Flash Memory Card	2711-NM12
Replacement Function Key Legend Strips for the PanelView 550 Terminals	2711-NF1
Replacement Function Key Legend Strip for the PanelView 900 Monochrome Terminals	2711-NF2A
Replacement Function Key Legend Strip for the PanelView 900 Color Terminals	2711-NF2C
Replacement Mounting Clips for the PanelView 900 Terminals	2711-NP2
Replacement Backlight Lamp for the PanelView 550 Terminals	2711-NL1
Replacement Backlight for the PanelView 900 Color Terminals	2711-NL2
Antiglare Overlay for the PanelView 550 Terminals (Quantity 3)	2711-NV4
Wallmount power supply provides power to 1747-PIC Converter when SLC processor or network is not connected. 105 to 132V ac input. Separate operating and programming cable is required.	1747-NP1
Personal Computer Interface Converter converts RS-232 signals to/from DH-485 signals.	1747-PIC
1.83 m (6 ft) DH-485 Operating and Programming Cable (for 2711-xxA2, -xxA3, -xxC3)	1747-C10
6.1 m (20 ft) DH-485 Operating and Programming Cable (for 2711-xxA2, -xxA3, -xxC3)	1747-C20
5 m (16.4 ft) RS-232 Operating and Programming Cable (for 2711-xxA5, -xxA9, -xxC9)③	2711-NC13
10 m (32.7 ft) RS-232 Operating and Programming Cable (for 2711-xxA5, -xxA9, -xxC9)③	2711-NC14
3 m (10 ft) RS-232 Operating and Programming Cable (for 2711-xxA5, -xxA9, -xxC9)③	2706-NC13

③ Cable is also used for RS-232 printer port on 2711-xxA1, -xxA3, -xxA9, -xxC1, -xxC3, -xxC9 terminals.

For more information, see *PanelView Flat-Panel Terminals Product Overview*, publication 2711-1.11.

PanelView 1200e and 1400e Operator Terminals and Software

(Cat. Nos. 2711E-K12C6, -K12C6L2, -T12C4, -T12C6, -K14C6, -T14C6, -T14C7, -K14C7)



PanelView 1200e™ and PanelView 1400e™ high-end CRT graphic terminals are an addition to the PanelView 1200 Line, offering VGA color pixel graphics. In addition, a single port offers Data Highway Plus or enhanced Universal Remote I/O communication to Allen-Bradley PLC and SLC controllers. ControlNet communication is also available. The terminals are available in touch screen or keypad, offering convenient and flexible choices for operator input. PanelView 1200e keypad terminals are available in a stainless steel version. PanelView 1200e terminals and 1400e keypad terminals have the same mounting dimensions as PanelView 1200 terminals.

PanelBuilder™ 1400e Configuration Software is designed for use with PanelView 1200e and 1400e terminals. PanelBuilder 1400e software takes advantage of the Microsoft® Windows™ graphical interface, simplifying application design and reducing development cost. Screen configuration is quick and easy using preconfigured symbols and dynamic objects. Other time-saving features include tag editor, cut/copy/paste, selection from tool bars, and the ability to work with multiple screens. Existing PanelView 1200 application files can be imported. Applications can be transferred between PanelBuilder 1400e software and PanelView 1200e and 1400e terminals by using the RS-232 port or a PCMCIA compatible memory card. Applications can also be transferred using Allen-Bradley Data Highway Plus to Remote I/O Pass-through, ControlNet to Remote I/O Pass-through or using direct DH+ or ControlNet network.

Features

- *VGA Color Pixel Graphics* provide more flexibility in size and location of screen objects and enhances screen design by allowing import of bit maps (.bmp) and AutoCAD (.dxf) files
- *Data Highway Plus interface* lets one PanelView 1200e or 1400e communicate with multiple PLC controllers or multiple PanelView terminals to access the same data from a single PLC controller. The tag-based Data Highway Plus interface supports unsolicited messages and eight scan classes
- *Expanded Remote I/O interface* is also tag-based and has a listen-only option. Up to 64 racks and 64 block transfers, containing up to 64 words each, allow the transfer of more data than PanelView 1200 terminals
- *ControlNet interface* combines high-speed capabilities of remote I/O and multiple PanelView/PLC connectivity of DH+ communication in a high-performance open systems network architecture
- *Expanded messages* include 2,000 Alarm, 2,000 Local and 2,000 Information messages to provide more information to the operator
- *PCMCIA Memory Card* can be used to update and save application files without using a personal computer. With the PCMCIA, the base user memory of 256K bytes in the terminal can be expanded to 16M bytes
- *Full complement of operator devices* to select from including push buttons, selectors, indicators, numeric displays, message displays, numeric keypad, bar graphs, ASCII input and display, online trend object, and custom graphics
- *Overlapping objects* allow control devices such as push buttons and indicators to be placed directly on top of other objects such as a bitmap of a machine layout, making operator control more intuitive
- *Expressions* reduce PLC addressing and logic required for the PanelView interface. Arithmetic, comparison, and logical operations can be applied to all object display components and numeric input object control tags.
- *Extensive alarm handling* during fault conditions is handled through Alarm Windows, Alarm Status Screen, and Alarm History Screen. Audio indicator can also be configured. A relay on the back of the terminal can be used to activate loud horns or highly visible devices. The RS-232 port on the back of the terminal allows for printouts of alarms or screen reports

For specifications, see page 7-41.

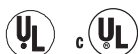
For a typical configuration drawing and for ordering information, see page 7-43.

For accessories and replacement parts, see page 7-44.

PanelView 1200e and 1400e Operator Terminals and Software

(Cat. Nos. 2711E-K12C6, -K12C6L2, -T12C4, -T12C6, -K14C6, -T14C6, -T14C7, -K14C7)

Specifications



Display		
Type:	1200e 1400e	12-inch Color CRT 14-inch Color CRT
Resolution	VGA 640 x 480 pixels	
Application memory		
256K bytes base terminal memory, expandable to 16M bytes via PCMCIA		
Touch Screen Design		
Type:	1200e 1400e	Matrix of 120 touch cells (10 across x 12 high) Rated for 1,000,000 presses Analog touch screen
Membrane	Water-clear, hardcoated, scratch-resistant polyester, over chemically strengthened glass	
Bezel	Cast aluminum with a black powder coating	
Keypad Front Panel Design		
Keypanel	Black anodized sheet aluminum with continuous hard-coated scratch-resistant polyester surface	
Keys	Sealed stainless steel dome membrane switches with tactile feedback. Rated for 2,000,000 presses	
Window	Continuous water-clear hard-coated, eight mil. polyester over chemically strengthened glass	
Stainless Steel Keypad Front Panel Design		
Keypanel	Type 304 stainless steel	
Keys	Sealed stainless steel dome membrane switches with tactile feedback. Rated for 2,000,000 presses	
Window	Continuous water-clear hard-coated, eight mil. polyester over chemically strengthened glass	
Electrical		
Power requirement	90 to 132, 180 to 264V ac, 47 to 63 Hz	
Power consumption		
1200e	65 W typical, 90 W maximum	
1400e	90 W typical, 120 W maximum	
Environmental		
Operating temp.	0 to 50° C (32 to 122° F)	
Storage temperature	-40 to 85° C (-24 to 185° F)	
Operating humidity	5 to 95% (without condensation) at 0 to 30° C (32 to 86° F)	
Non-operating humidity	5 to 95% (without condensation) at -40 to 70° C (-40 to 158° F)	
Approvals	UL/C-UL — Designed for CE	
Ratings	NEMA 4X (indoor only), NEMA 12 and NEMA 13 2711E-T12C6 NEMA 12 only	
Dimensions		
Touch Screen:		
1200e	342.9 mm (H) x 350.5 mm (W) x 388.8 mm (D) 13.5 in (H) x 13.8 in (W) x 15.3 in (D)	
1400e	354.8 mm (H) x 441.5 mm (W) x 422.8 mm (D) 14 in (H) x 17.4 in (W) x 16.6 in (D)	
Keypad:		
1200e	354.8 mm (H) x 482.6 mm (W) x 382.9 mm (D) 14 in (H) x 19 in (W) x 15.1 in (D)	
1400e	354.8 mm (H) x 482.6 mm (W) x 424.3 mm (D) 14 in (H) x 19 in (W) x 16.7 in (D)	
Weight		
Touch Screen:		
1200e	14.8 kg (32.6 lbs)	
1400e	18.6 kg (41 lbs)	
Keypad:		
1200e	15.3 kg (33.8 lbs)	
1400e	19.1 kg (42 lbs)	

Functionality - Push Buttons and Selector Switches

- | | | |
|--------------------|-------------------------|------------------------|
| • Momentary NO, NC | • Multi-state | • Set bit cursor point |
| • Maintained | • Control list selector | • Scroll list selector |
| • Latched | • Interlocked | • Screen selectors |

Data Entry

- | | | |
|------------------|---------------|------------------------|
| • Numeric keypad | • ASCII input | • Numeric cursor point |
|------------------|---------------|------------------------|

Information Display

- | | | |
|-------------------------|------------------------|----------------|
| • Bar graph | • Numeric data display | • Time display |
| • Message display | • ASCII display | • Date display |
| • Multi-state indicator | • List indicator | • Trend Object |

Graphics

- | | | |
|-----------------------|-------------------------|-------------------------|
| • Line/connected line | • ISA symbols | • Custom graphics |
| • Rectangle | • Text | • Wedge |
| • Circle/ellipse | • Bit map (.bmp) import | • AutoCAD (.dxf) import |

Diagnostics

- | | | |
|----------------|-----------------|----------------|
| • Alarm window | • Alarm history | • Alarm status |
|----------------|-----------------|----------------|

PanelView 1200 Operator Terminals and Software

(Cat. Nos. 2711-KA1, -KC1, -TA1, -TC1, -TA4, -TC4)



PanelView™ 1200 Operator Terminals are the original PanelView terminals designed to replace traditional hard-wired panel devices ^①, such as (push buttons, bar graphs, digital readouts, and message displays) with CRT screens that are simple to configure. Use PanelView 1200 terminals in control panel applications that connect to Allen-Bradley PLC controllers over a Universal Remote I/O link.

Features

- PanelBuilder Software for DOS (2711-ND1) lets you create, store, and transfer application screens. Create screens by selecting objects from a library and placing them on a screen. Then, use menus to assign attributes, such as a PLC address, color, and text.
- PanelBuilder 1200 Software for Windows™ (cat. no. 2711-ND1W) combines the functionality of PanelBuilder DOS Software with the advantages of Microsoft® Windows. Advanced editing features use Windows menus, dialog boxes and graphical editing tools to configure application files quickly and easily.

PanelBuilder Software (for DOS or Windows) runs on Allen-Bradley Industrial Terminals, IBM PC or compatible computers with a minimum of 640K bytes of RAM.

- The remote I/O port connects directly to the Universal Remote I/O link supporting both single-transfer and block-transfer of data.
- The RS-232 port allows you to transfer application files between the PanelView 1200 terminal and a personal computer (IBM PC or compatible) running PanelBuilder software. You can also use this port as a printer port.
- Touch-Screen or keypad terminal options provide additional flexibility in size and ease of use.

^① Replaces hardwired interface devices for non-safety critical applications.

The keypad terminal has 21 configurable function keys, numeric keypad, Backspace, Enter, Home, directional cursor arrows, Select, Cancel, Raise, and Lower keys.

The Touch-Screen Terminal has 120 touch cells (10 across × 12 high).

- Color or monochrome amber CRT supported by both terminals.

Specifications



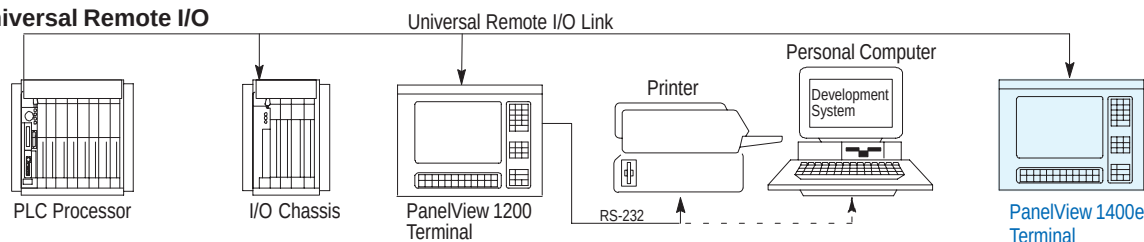
Mounting	Panel or 19-inch rack
PLC interface	Allen-Bradley Universal Remote I/O link
Communication rates	• 57.6k bit/s • 115.2k bit/s • 230k bit/s
Memory	Series E or earlier, contains 64K bytes of battery backed CMOS RAM. Series F is supplied with 128K bytes of battery backed CMOS RAM. All Terminals provide EEPROM / EPROM sockets for user memory backup. For Series E or earlier, these sockets may be alternatively used to provide an additional 64K bytes of user memory.
Supply voltage	110/220V ac
Operating temperature	0 to 50° C (32 to 122° F)

For a typical configuration drawing and for ordering information, see page 7-43.

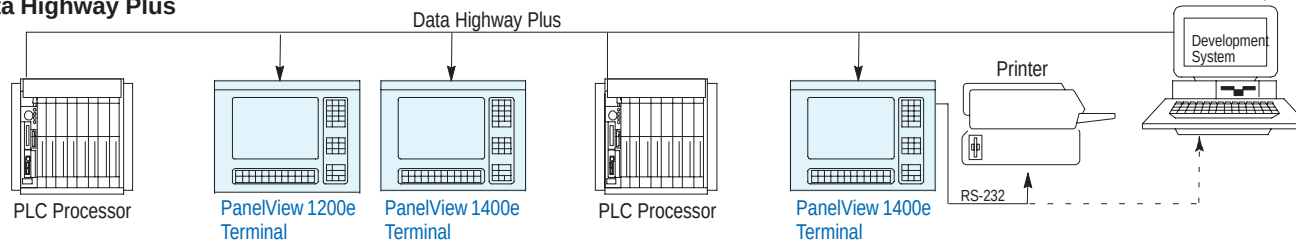
For accessories and replacement parts, see page 7-44.

Typical Configuration

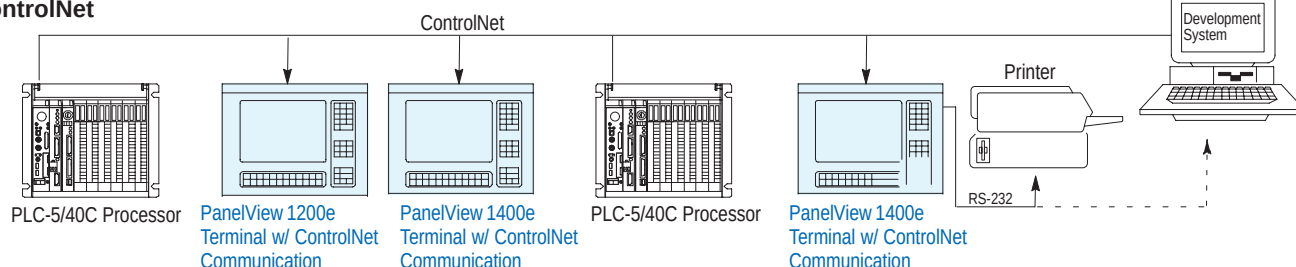
Universal Remote I/O



Data Highway Plus



ControlNet



Ordering Information

PanelView 1400e and 1200e Enhanced High-End Graphics Terminals

Description	Catalog Number
PanelView 1400e Color Touch-Screen Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with DH+ and Universal Remote I/O	2711E-T14C6
PanelView 1400e Color Keypad Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with DH+ and Universal Remote I/O	2711E-K14C6
PanelView 1400e Color Touch-Screen Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with ControlNet communication	2711E-T14C7
PanelView 1400e Color Keypad Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with ControlNet communication	2711E-K14C7
PanelView 1200e Color Touch-Screen Clip-Mount Terminal, NEMA Type 12 with DH+ and Universal Remote I/O	2711E-T12C6
PanelView 1200e Color Keypad Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with DH+ and Universal Remote I/O	2711E-K12C6
PanelView 1200e Color Touch-Screen Stud-Mount Terminal, NEMA Type 12, 13, 4X (indoor only) with DH+ and Universal Remote I/O	2711E-T12C4
PanelView 1200e Stainless Steel Color Keypad Terminal, NEMA Type 12, 13, 4X (indoor only) with DH+ and Universal Remote I/O	2711E-K12C6L2
PanelBuilder 1400e Windows Development Software for PanelView 1200e, 1400e and enhanced Series F or Series G PanelView 1200 Terminals with 2711E-UIB12C enhancement kit	2711E-ND1
French PanelBuilder 1400e Windows Development Software for PanelView 1200e, 1400e, and enhanced series F or series G PanelView 1200 terminals with 2711E-UIB12C enhancement kit.	2711E-ND1FR
German PanelBuilder 1400e Windows Development Software for PanelView 1200e, 1400e, and enhanced series F or series G PanelView 1200 terminals with 2711E-UIB12C enhancement kit.	2711E-ND1DE
File Transfer Utility for PanelView 1400e, 1200e, and 1200 terminals. Note: File transfer software is included with PanelBuilder 1400e software. This is a stand-alone utility for file transfer only and requires less hard-disk space than PanelBuilder 1400e software.	2711E-ND7

For PanelView 1200 ordering information, see page 7-44.

PanelView 1200 Terminals and Software (Original Character Graphics, Remote I/O PanelView Terminals)

Description	Catalog Number
PanelView 1200 Keypad Terminal, Monochrome CRT, Type 12, 13, 4X (indoor only)	2711-KA1
PanelView 1200 Keypad Terminal, Color CRT, Type 12, 13, 4X (indoor only)	2711-KC1
PanelView 1200 Touch-Screen Terminal, Monochrome CRT, Type 12	2711-TA1
PanelView 1200 Touch-Screen Terminal, Color CRT, Type 12	2711-TC1
PanelView 1200 Touch-Screen Terminal, Monochrome CRT, Type 12, 13, 4X (indoor only)	2711-TA4
PanelView 1200 Touch-Screen Terminal, Color CRT, Type 12, 13, 4X (indoor only)	2711-TC4
PanelBuilder 1200 Development Software for Windows v3.1 or later is used to develop application screens for PanelView 1200 terminals. Contains User Manual and: • PanelBuilder 1200 software on four 3-1/2 inch diskettes. • File Transfer Utility on one 3-1/2 inch diskette. • Upload/Download Cable NOT included (use cat. no. 2711-NC1)	2711-ND1W
PanelBuilder Development Software for DOS is used to develop application screens for PanelView 1200 terminals. Contains User Manual and: • PanelBuilder software on two 5-1/4 inch diskettes and one 3-1/2 inch diskette. • Pass-through Download Utility on one 5-1/4 inch and 3-1/2 inch diskette. • Upload/Download Cable and Adapters (same as cat. no. 2711-NC1)	2711-ND1

Accessories and Replacement Parts for PanelView 1400e, 1200e, and 1200 Terminals

Description	Catalog Number
Upload/download cable for PanelView 1400e, 1200e, and 1200 terminals 3.1 m (10 ft) long	2711-NC1
Remote keyswitch and RS-232 port assembly, with 3.1 m (10 ft) long cable, for PanelView 1400e, 1200e, and 1200 terminals	2711-NC2
Replacement Keypad Faceplate for PanelView 1200 Terminals, Series D or later (for cat. no. 2711-KA1, -KC1 only)	2711-NK1
EPROM Memory Chip Set is for PanelView 1200 Terminals, Series C and earlier. Two EPROMs help back up application memory. Download configuration files to EPROM programmer using PanelBuilder 1200 Development Software	2711-NM1
EEPROM Memory Chip Set 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. 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 bytes or to back up application memory. Cat. no. 2711-NM4 is for PanelView 1200 Terminals, Series F, and is used for memory backup only (128K bytes).	2711-NM2 2711-NM3 2711-NM4
256K-byte PCMCIA flash memory card for PanelView 1200 Terminals, Series F only, and PanelView 1200e and 1400e Terminals	2711-NM11
1M-byte PCMCIA flash memory card for PanelView 1200e and 1400e Terminals	2711-NM12
2M-byte PCMCIA flash memory card for PanelView 1200e and 1400e Terminals	2711-NM13
4M-byte PCMCIA flash memory card for PanelView 1200e and 1400e Terminals	2711-NM14
19-inch Rack Mount Kit for PanelView 1200 and 1200e clip mount touch screen terminals (for cat. nos. 2711-TA1, -TC1, and 2711E-T12C6)	2711-NR1
19-inch Rack Mount Kit for PanelView 1400 and 1400e touch screen terminals (for cat. no. 2711E-T14C6)	2711-NR4
Replacement Touch Screens for PanelView 1200 Terminals, Series C or earlier, (for cat. nos. 2711-TA1, -TC1 only)	2711-NT1C
Touch Screen Replacement Kit for PanelView 1200 Terminals, Series D or later, (cat. nos. 2711-TA1, -TC1, -TA4, -TC4) and for PanelView 1200e Terminals (cat. nos. 2711E-T12C6, -T12C4)	2711-NT1
Anti-glare, protective overlay for PanelView 1200 and 1200e terminals (package of 5)	2711-NV1
ControlNet Adapter Kit for PanelView 1200e (cat. nos. 2711E-T12C6, -K12C6, -T12C4, -K12C6L2) and 1400e (cat. nos. 2711E-T14C6, -K14C6). Note: A ControlNet ISA/EISA Bus Interface (cat. no. 1784-KTCX Series B or later) is also required for ControlNet communication. The adapter (cat. no. 2711E-NA1) and ControlNet Bus interface card (cat. no. 1784-KTCX) are not required for cat. nos. 2711E-T14C7 and -K14C7. They are already integrated into those terminals.	2711E-NA1
Keypad Replacement Kit for PanelView 1200e (for cat. no. 2711E-K12C6)	2711E-NK2
Stainless Steel Keypad Replacement Kit for PanelView 1200, Series D or later, and PanelView 1200e Keypad Terminals	2711E-NK3
Keypad Replacement Kit for PanelView 1400e (for cat. no. 2711E-K14C6)	2711E-NK5
Analog Touch-Screen Replacement Kit for PanelView 1400e terminals (for cat. no. 2711E-T14C6)	2711E-NT2
Enhancement kit for PanelView 1200 terminals, Series F and Series G, to PanelView 1200e first release functionality (includes 2M bytes SIMM and 4M bytes PCMCIA flash memory card)	2711E-U1B12C



As members of the Allen-Bradley family of high-performance open systems, 6180 Industrial Computers can be ordered with pre-installed software products including popular operating systems and MMI and control software. With adherence to PC standards, these products can easily accommodate your evolving requirements.

Use the specifications table as a selection guide. The exact catalog number is determined by selecting options such as processor speed, display size, system memory, hard drive size, floppy drive, CD ROM, and pre-installed software. For ordering information, [see page 7-51](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications

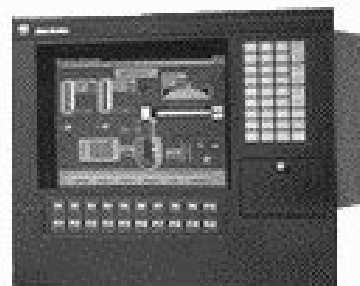


Catalog Number Series: 6180-xxC, -xxD		6180-xxG	6180-xxE, -xxF
Mounting: Panelmount / NEMA 4X (indoor) or 19-inch Rackmount			
Display Type: Integrated Flat TFT Display (800 × 600)			
Display Size: 10.4-inch Display			11.3-inch Display
Display Design: QuickReplace™ Backlight System and OptiClarity™ Display offer exceptional brightness and clarity at wide ranges			Standard Backlight
Touchscreen: Res-Ag Touch Screen Optional	—		Res-Ag Touch Screen Optional
Description: 26 Programmable Keys plus Numeric Keys, Integral Mouse, Front Status Indicators	36 Programmable Keys plus Numeric Keys, Alphanumeric Keys, Front Status Indicators		26 Programmable Keys plus Numeric Keys, Integral Mouse, Front Status Indicators
Approximate Overall Dimensions (8U) (W×H×D): 483 × 355.6 × 203.2 mm (19 × 14 × 8 in)			
Cut-out Dimensions (WxH): 429.26 × 325.39 mm (16.9 × 12.85 in)			
Peripherals: Sealed Front Access Doors to: Optional Diskette or CD ROM Drive, Power Switch, InfraRed Interface, PS/2 Mouse and Keyboard Ports			
Slots: Active ATX Motherboard Option Slots: 2 ISA + 3 PCI + 1 Shared (PCI or ISA)			
Note: Subtract 1 ISA slot for required Keyboard Interface Card and 1 PCI slot for required Video Card			
Chassis: Chassis has two internal 3.5-inch hard drive bays, one bi-directional half-height bay (for diskette or CD ROM drive access via front left door or rear door opening, one 1-inch bay (for diskette drive access via upper left side), option card retention and corrosion resistance.			
Power Requirements: 100-120 V ac / 200 – 240 V ac (47-63 Hz)			
Power Consumption: 210 Watt input for 160 Watt output power supply			
Ambient Temperature (Operating): 10 to 50° C (50 to 122° F) (Non-operating): –25 to 60° C (–13 to 140° F)			
Relative Humidity: 8 to 80% (without condensation)			
Vibration (Operating): 1.0 g @ 10 to 150 Hz sine sweep; .006 peak to peak (Non-operating): 2.0 g @ 20 to 500 Hz; .01 in. peak to peak			
Shock (Operating): 15 g (½ sine, 11 ms) (Non-operating): 30 g (½ sine, 11 ms)			
Weight: 15.89 kg (35 lbs)			

Industrial Computer Products

Industrial Computers with CRT Displays

(Cat. Nos. 6151 and 6152 Series)



The Integrated Industrial Computers (14-inch) are members of the A-B family of open systems, and they can handle shock, vibration, dirt, washdowns, and high temperatures. These computers are bundled with popular operating systems, Rockwell Automation application software, and equipped with ISA and/or PCI bus architecture.

Use the specifications tables ([pages 7-46 and 7-47](#)) as a selection guide. The exact catalog number is determined by selecting options such as processor speed, display size, system memory, hard drive size, floppy drive, CD ROM, and pre-installed software. For ordering information, [see page 7-51](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications



14-inch CRT Displays

Catalog Number Series: 6151	6152
Mounting: Panelmount / NEMA 4 or 19-inch Rackmount	
Approximate Dimensions: (7U) (WxHxD) 483 × 310 × 413mm (19.0 × 12.2 × 16.3 in.)	(9U) 483 × 399 × 412.83mm (19.0 × 15.7 × 16.25 in.)
Front Bezel Dimensions (H × W): 310 × 483 mm (12.2 × 19 in)	399 × 483 mm (15.7 × 19 in)
Display Type: Integrated 14-inch CRT Display (1024 × 768)	
Touchscreen: Resistive Antiglare Touch Screen Optional	
Description: 10 Fkeys + 33 Numeric Keys/Cursor	20 Fkeys + 33 Numeric Keys/Cursor
Weight: 22.70 kg (50 lbs)	24.97 kg (55 lbs)
Peripherals: Front Door Access to Optional Diskette Drive and 9-pin Pass-through Serial Port	
Slots: Passive Backplane with 8 ISA Slots and Pentium 100, 166, or 200 (200 has Onboard Video)	
Power Requirements: 90-132V ac / 180-264V ac Auto-switching, (47-63 Hz)	
Power Consumption: 150 Watt (typical), 300 Watt (maximum)	
Ambient Temperature: Operating: 5 to 50° C (41 to 122° F) (Non-operating): -30 to 60° C (-22 to 140° F)	
Relative Humidity: 8 to 80% (without condensation)	
Vibration (Operating): 0.01 in. peak to peak, 5-44 Hz sine; 1.0 g peak, 44-500 Hz sine (Non-operating): 0.1 in. p-p, 5-20Hz sine, 2.0 g peak, 20-500Hz sine	
Shock (Operating): 10 g (½ sine, 11 ms) (Non-operating): 30 g (½ sine, 11 ms)	



The Integrated Industrial Computers (20-inch) are members of the A-B family of open systems, and they can handle shock, vibration, dirt, washdowns, and high temperatures. These computers are bundled with popular operating systems, Rockwell Automation application software, and equipped with ISA and/or PCI bus architecture.

Use the specifications table as a selection guide. The exact catalog number is determined by selecting options such as processor speed, display size, system memory, hard drive size, floppy drive, CD ROM, and pre-installed software. For ordering information, [see page 7-51](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications



20-inch CRT Displays

Catalog Number Series 6153-AB, -AE, -AF	6153-CB, -CF, -EB, -EEEx	6154-AB, -AE, -AF	6154-CB, -CF, -EB, -EEEx
Mounting: Panelmount		Rackmount	
Display Type: Integrated 20-inch CRT (1280 × 1024)			
Touchscreen: Res-Pol, Res-Ag, Cap-Pol or Cap-Ag Touch Screen Options			
Faceplate: (12U) Approximate Dimensions (WxHxD): 483 × 533.4 × 463.5mm (19 × 21 × 18.25 in)	Faceplate: (13) 483 × 578 × 463.5mm (19 × 22.75 × 18.25 in)	Faceplate 483 × 489 × 451mm (19 × 19.25 × 17.75 in)	Faceplate: (13U) 483 × 578 × 451 mm (19 × 22.75 × 17.75 in)
Weight: 43.13 kg (95 lbs)	54.48 kg (120 lbs)	40.86 kg (90 lbs)	45.40 kg (100 lbs)
Peripherals: —	Front Door Access to Optional Diskette and/or CD ROM Drive and Power Switch	—	Front Door Access to Optional Diskette and/or CD ROM Drive and Power Switch
Slots: Passive 4 Slot ISA with P100, 166, or 200 (200 has Onboard Video)	Passive 12 Slot ISA with P100, 166, or 200 (200 has Onboard Video) or Active 8 Slot 4 ISA + 3 PCI + 1 shared with P100 or 166	Passive 4 Slot ISA with P100, 166, or 200 (200 has Onboard Video)	Passive 12 Slot ISA with P100, 166, or 200 (200 has Onboard Video) or Active 8 Slot 4 ISA + 3 PCI + 1 shared with P100 or 166
Power Requirements: 90-132V ac / 180-264V ac Auto-switching, (47-63 Hz)			
Power Consumption: 150 Watt typical, 300 Watt maximum			
Ambient Temperature (Operating): 5 to 45° C (41 to 113° F) (Non-operating): -30 to 60° C (-22 to 140° F)			
Relative Humidity: 8 to 80% (without condensation)			
Vibration (Operating): 0.01 in. peak to peak, 5-14 Hz sine; 1.0g peak, 44-500 Hz sine (Non-operating): 0.1 in. p-p, 5-20Hz sine, 2.0 g peak, 20-500Hz sine			
Shock (Operating): 10 g (½ sine, 11 ms) (Non-operating): 30 g (½ sine, 11 ms)			

Industrial Computers without Integral Display

(Cat. Nos. 6155 and 6180 Series)



As members of the Allen-Bradley family of high-performance open systems, 6180 Industrial Computers can be ordered with pre-installed software products including popular operating systems and MMI and control software.

The 6155 series Industrial Rackmount Computer can be used with any SVGA monitor (sold separately).

Use the specifications table as a selection guide. The exact catalog number is determined by selecting options such as processor speed, display size, system memory, hard drive size, floppy drive, CD ROM, and pre-installed software. For ordering information, [see page 7-52](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications



Catalog Number Series: 6155-xx	6180-xxB	6180-xxA
Mounting: 19-inch Rack or Bench Top	Panelmount / NEMA 4X or 19-inch Rackmount	19-inch Rack or Inside Panel
Front Bezel: (4U), (WxHxD): 483 × 178 × 444.5mm (19 × 7 × 17.5 in)	Faceplate: (8U), 483 × 355.6 × 203.2mm (19 × 14 × 8 in)	Mounting Plate: (7.43U), 483 × 330.2 × 179mm (19 × 13 × 7 in)
Weight: 15.89 kg (35 lbs)		11.35 kg (25 lbs)
Peripherals: Front Access to Opt. Diskette, CD ROM and 3rd Device Drive	Front Access to Opt. Diskette and/or CD ROM drive, Power Switch, Infrared port, PS/2 Mouse / Keyboard Ports	—
Slots: Passive 7 or 13 Slot ISA/PCI with P100, 166, or 200 (200 has Onboard Video) or Active 8 Slot with P100, 166 4 ISA + 3 PCI + 1 Shared or Active 7 Slot with PPro 200 3 ISA + 3 PCI + 1 Shared or Active 4 Slot with Dual PPro 200 3 PCI + 1 Shared (PCI or ISA)	Active Motherboard Slots: 2 ISA + 3 PCI + 1 Shared (ISA or PCI) with Pentium 100, 133, 166, or 200 Processor Options	
AC Power Requirements: 90-132V ac / 180-264V ac Autoswitching, 47-63 Hz, 150W (typical), 300W (max)	100-120V ac / 200-240V ac, 47-63 Hz, 210W Input, 160W Output	
Operating Temperature: 5 to 45°C (41 to 113°F) (Non-operating): -30 to 60°C (-22 to 140°F)		
Vibration (Operating): 0.1 in. peak to peak, 5-14 Hz, 1.0g peak, 14-500 Hz	1.0g @ 10 to 150 Hz sine sweep; 0.006 peak to peak	
Shock (Operating): 10 g (½ sine, 11 ms)	15 g (½ sine, 11 ms)	
Relative Humidity: 8 to 80% (without condensation)		
Certifications: UL / C-UL 1950 Listed, CE Mark	UL / C-UL	



The Industrial 14-, 17-, and 21-inch CRT Color Monitors are designed for long-term, dependable performance in harsh factory environments.

The 14-inch monitors (6156 series) are panel or rack-mountable and are available with or without keypads or touch screens.

The 21-inch monitors (6158 series) display a view of an entire process including minute detail and vast amounts of detail. A bonded capacitive touch screen is optional.

Use the specifications table as a selection guide. The exact catalog number is determined by selecting options such as display size, touchscreens, video connectors and cables, and accessories. For ordering information, [see page 7-52](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications

Catalog Number Series: 6156-Axx	6159-AAxx	6158-AAxx
Display Size: 14-inch CRT (1024 × 768)	17-inch CRT (1280 × 1024)	21-inch CRT (1280 × 1024)
Mounting: Panelmount / NEMA 4 or 19-inch Rackmount		Panelmount
Description: Optional Integrated Keypad includes 10Fkeys plus Numeric Keys		No Integrated Keys
Touchscreen: Any combination of Keypad and/or Touch Screen Options	Either Polycarbonate Window over CRT or Resistive anti-glare or Capacitive anti-glare Touch Screen	Either with or without Polycarbonate Window or with Capacitive anti-glare Touch Screen
Faceplate Dimensions: (7U) (W×H×D) 483 × 310 × 412.75 mm (19 × 12.2 × 16.25 in)	Faceplate (9U) 483 × 400 × 422.40 mm (19 × 15.75 × 16.63 in)	Faceplate 514.35 × 425.45 × 571.50 mm (20.25 × 16.75 × 22.5 in)
Weight: 22.70 kg (50 lbs)	22.70 kg (50 lbs)	31.78 kg (70 lbs)
AC Power Requirements: 100-250V ac, 50-60 Hz, 120W (max)	90-132 / 198-264V ac, 50-60 Hz, 120W (max)	100-250V ac, 50-60 Hz, 135W (max) (461 BTU)
Vibration (operating): 0.01 in. peak to peak 5-17 Hz sine, 1.5 g peak, 17-640 Hz sine	0.006 in. peak to peak 5-57 sine, 1.5 g peak, 57-640 Hz sine	0.01 in. peak to peak 5-44 Hz sine 1.0 g peak, 44-500 Hz sine
Shock (operating): 15 g (½ sine, 11 ms)		
Ambient Temperature: 0 to 50°C (32 to 122°F)		
Certification: UL/C-UL 508, UL 1950 Recognized, NEMA 4/12/13, CE Mark, EN60950, FCC Class A	UL/C-UL 1950 Recognized, NEMA 4/12/13, CE97 (EMC Directive 89/336/EEC and LV Directive; 73/23EEC), FCC Class A	UL/C-UL (UL 1950, CSA 950, Recognized), CE Mark (EN50081-2, EN50082-2, EN60950)
Relative Humidity: 5-95%	10-90%	

Industrial Computer Products

Industrial CRT Monitors

(Cat. Nos. 6157 Series)



Designed for long-term, dependable performance in harsh factory environments, the 20-inch monitors are available in four basic form factors: ergonomic desktop, benchtop, rackmount, or panelmount. Operator input is completed via touchscreen with technology that can be integrated with your choice of capacitive, resistive, or SAW (Surface Acoustic Wave) touchscreens.

Use the specifications table as a selection guide. The exact catalog number is determined by selecting options such as display size, touchscreens, video connectors and cables, and accessories. For ordering information, [see page 7-53](#) or visit our web site at <http://www.ab.com>, and select Operator Interface and Industrial Computer Products.

Specifications



Catalog Number Series 6157-AA, -BA, -BExx	6157-BBxx	6157-BCxx	6157-BDxx
Display: 20-inch CRT, -AA (1024 × 768) -BA, -BE (1280 × 1024)	20-inch CRT (1280 × 1024)		
Mounting: Panelmount NEMA 4, (-BE includes front video controls)	Rackmount (for 19-inch Rack Systems)	Bench Top (rectangular metal casing)	Desk Top (ergonomic plastic casing)
Touchscreen: Res-Ag, Res-Pol, Cap-Ag, Cap-Pol Touch Screen Options	Res-Ag, Res-Pol, Cap-Ag, SAW-Ag, SAW-Pol Touch Screen Options		SAW-Ag, SAW-Pol Touch Screen Options
Description: No Integrated Function/Numeric Keys			
Faceplate (9U) (W×H×D) 483 × 399.2 × 496.3 mm (19 × 15.72 × 19.54 in)	Faceplate (9U) 483 × 400 × 452 mm (19 × 15.75 × 17.79 in)	Front of Unit 483 × 476.25 × 568.45 mm (19 × 18.75 × 22.38 in)	Front of Unit (H×D) 435.6 × 520.7 mm (17.15 × 20.5 in)
Weight: 31.78 kg (70 lbs)		29.5 kg (65 lbs)	27.24 kg (60 lbs)
Options: Flat Polycarbonate Window over CRT (standard with-AA or -BA, Opt. with-BE	18 or 24-inch rack Slides Optional	Tilt Swivel Base Optional	
Certification: UL 1950 Recognized; FCC class A; EN55022; EN50082-2; EN60950:1992 CE Directives 89/336/EEC, 73/23/EEC; DHHS CFR 21.1020 Compliant UL508, NEMA 4X (indoor)			
Power Requirements: 100-250V ac, 50-60 Hz single phase			
Power Consumption: 130W (max)			
Ambient Temperature (Operating): 0 to 50°C (32 to 122°F) (Non-operating): -30 to 70°C (-22 to 158°F)			
Relative Humidity: 10 to 90% (without condensation)			
Vibration (Operating): 1.0g peak accl., 57 to 2 KHz sine; 0.006 in. peak to peak, 5 to 57 Hz sine			
Shock (Operating): 15 g (½ sine, 11 ms duration)			

6151 and 6152 Industrial Computers with Integrated 14-inch CRT

61xx – — — — — — — — — — — —
1 2 3 4 5 6 7 8 9 10 11

Position #1

Bulletin Number

6151 = 7U Panelmount

6152 = 9U Panelmount

Position #2

Processor and Backplane

BB = Passive 8-Slot ISA, Pentium 100 MHz

BE = Passive 8-Slot ISA, Pentium 166 MHz

BF = Passive 8-Slot ISA, Pentium 200 MHz with on-board Video

Position #3

Base Unit

A = 14-inch CRT (1024 × 768)

B = 14-inch CRT with touch screen (resistive anti-glare)

T = 14-inch CRT (1024 × 768), T60 Cutout compatible [6152 Series Only](#)

Position #4

Video Card

A = ISA, 1M byte Video Memory (not for processor 2–BF)

Z = None

Position #5

System Memory

C = 8M bytes RAM

D = 16M bytes RAM

E = 32M bytes RAM

F = 64M bytes RAM

G = 128M bytes RAM

H = 256M bytes RAM

Position #6

Hard Drive

C = 1.5+ Gbyte EIDE

D = 2+ Gbyte EIDE

Z = None

Position #7

Removable Media

A = 1.44-M byte 3.5-inch Diskette Drive

Z = None

Position #8

Pre-installed Option Cards

A = Ethernet Card (ISA Bus)

C = KTX card (Remote I/O Scanner – 1 channel, ISA Bus)

D = KTXD card (Remote I/O Scanner – 2 channel, ISA Bus)

F = KTC card (ControlNet Personal Interface, ISA Bus)

G = KTCX card (ControlNet Deluxe, ISA Bus)

H = Ethernet (ISA) card and KTX (ISA) card

I = Ethernet (ISA) card and KTXD (ISA) card

J = Ethernet (ISA) card and KTC (ISA) card

K = Ethernet (ISA) card and KTCX (ISA) card

Z = None

Position #9

Power Input/Line Cord

A = 120/240V ac Input with USA power cord

B = 120/240V ac Input no power cord

F = 24V dc Input

Position #10

Pre-installed Operating System

A = MS-DOS v6.22

B = Windows 95

D = Windows NT Workstation 4.0

Z = None

Position #11

Pre-installed Application Software

H = RSView32 Runtime 150 with LINX

I = RSView32 Runtime 300 with LINX

J = RSView32 Runtime 1500 with LINX

K = RSView32 Runtime with LINX

Z = None

6153 and 6154 Industrial Computers with Integrated 20-inch CRT

61xx – — — — — — — — — — — —
1 2 3 4 5 6 7 8 9 10 11

Position #1

Bulletin Number

6153 = 7U Panelmount

6154 = 9U Rackmount

Position #2

Processor and Backplane

AB = Passive 4-Slot ISA, Pentium 100 MHz

AE = Passive 4-Slot ISA, Pentium 166 MHz

AF = Passive 4-Slot ISA, Pentium 200 MHz with on-board Video

CB = Passive 12-Slot ISA, Pentium 100 MHz

CE = Passive 12-Slot ISA, Pentium 166 MHz

CF = Passive 12-Slot ISA, Pentium 200 MHz with on-board Video

EB = Active 8-Slot ISA/PCI, Pentium 100 MHz

EE = Active 8-Slot ISA/PCI, Pentium 166 MHz

Position #3

Display/Touch Screen

A = 20-inch CRT (1280 × 1024)

B = 20-inch CRT with touch screen (resistive polished)

C = 20-inch CRT with touch screen (resistive antiglare)

D = 20-inch CRT with touch screen (capacitive, polished)

E = 20-inch CRT with touch screen (capacitive, anti-glare)

Position #4

Video Card

A = ISA, 1M byte Video Memory

C = PCI, 2M bytes Video Memory (2EB or EE req)

D = PCI, 4M bytes Video Memory (2 EB or EE req)

Z = None

Position #5

System Memory

C = 8M bytes RAM

D = 16M bytes RAM

E = 32M bytes RAM

F = 64M bytes RAM

G = 128M bytes RAM

H = 256M bytes RAM (Not for Option 2 – "EB" and "EE")

Position #6

Hard Drive

C = 1.5+ Gbyte EIDE

D = 2+ Gbyte EIDE

Z = None

Position #7

Removable Media

A = 1.44-M byte 3.5-inch Diskette Drive

B = CD ROM Drive (EIDE)

C = 1.44-M byte 3.5-inch Diskette Drive and CDROM Drive (EIDE)

Z = None

Position #8

Pre-installed Option Cards

A = Ethernet card (ISA)

B = Ethernet card (PCI Bus), only for base system with PCI

C = KTX card (Remote I/O Scanner – 1 channel, ISA Bus)

D = KTXD card (Remote I/O Scanner – 2 channel, ISA Bus)

F = KTC card (ControlNet Personal Interface, ISA Bus)

G = KTCX card (ControlNet Deluxe, ISA Bus)

H = Ethernet PCI and KTX ISA Card, only for base system with PCI

I = Ethernet PCI and KTXD ISA card, only for base system with PCI

J = Ethernet PCI and KTC ISA card, only for base system with PCI

K = Ethernet PCI and KTCX ISA card, only for base system with PCI

Z = None

Position #9

Power Input/Line Cord

A = 120/240V ac Input with USA power cord

B = 120/240V ac Input no power cord

6153 and 6154 Industrial Computers with Integrated 20-inch CRT (*continued*)

Position #10

Pre-installed Operating System

A = MS-DOS v6.22
B = Windows 95
D = Windows NT Workstation 4.0
Z = None

Position #11

Pre-installed Application Software

H = RSView32 Runtime 150 with LINX
I = RSView32 Runtime 300 with LINX
J = RSView32 Runtime 1500 with LINX
K = RSView32 Runtime with LINX
Z = None

6155 Industrial Computer without Display, Rackmount

6155 – — — — — — — — — — — — — — — —
1 2 3 4 5 6 7 8 9 10 11

Position #1

Bulletin Number

6155 = 4U Rackmount

Position #2

Processor and Backplane

DB = Passive 7-Slot ISA/PCI, Pentium 100 MHz
DE = Passive 7-Slot ISA/PCI Pentium 166 MHz
DF = Passive 7-Slot ISA/PCI, Pentium 200 MHz with on-board Video
EB = Active 8-Slot ISA/PCI, Pentium 100 MHz
EE = Active 8-Slot ISA/PCI, Pentium 166 MHz
FB = Passive 13-Slot PCI/ISA, Pentium 100 MHz
FE = Passive 13-slot PCI/ISA, Pentium 166 MHz
FF = Passive 13-Slot ISA, Pentium 200 MHz with on-board Video
GF = Active 7 Slot ISA/PCI, PentiumPro 200
HF = Active 4 Slot ISA/PCI, Dual PPro 200

Position #3

Base Unit

Y = Benchtop or Rackmount

Position #4

Video Card

A = ISA, 1M byte Video Memory
C = PCI, 2M bytes VRAM (2 EB or EE req)
D = PCI, 4M bytes VRAM (2 EB or EE req)
Z = None

Position #5

System Memory

C = 8M bytes RAM
D = 16M bytes RAM
E = 32M bytes RAM
F = 64M bytes RAM
G = 128M bytes RAM
H = 256M bytes RAM (Option 2 – “GF” and “HF” only)
J = 512M byte System RAM (Option 2 – “HF” only)

Position #6

Hard Drive

C = 1.5+ Gbyte EIDE
D = 2+ Gbyte EIDE
Z = None

Position #7

Removable Media

A = 1.44M byte 3.5-inch Diskette Drive
B = CD ROM Drive (EIDE)
C = 1.44M byte 3.5-inch Diskette Drive and CDROM Drive (EIDE)
Z = None

6155 Industrial Computer without Display, Rackmount (*continued*)

Position #8

Pre-installed Option Cards

A = Ethernet card (ISA) Bus
B = Ethernet card (PCI Bus), only for base system with PCI
C = KTX card (Remote I/O Scanner – 1 channel, ISA Bus)
D = KTXD card (Remote I/O Scanner – 2 channel, ISA Bus)
F = KTC card (ControlNet Personal Interface, ISA Bus)
G = KTCX card (ControlNet Deluxe, ISA Bus)
H = Ethernet PCI and KTX ISA Card, only for base system with PCI
I = Ethernet PCI and KTXD ISA card, only for base system with PCI
J = Ethernet PCI and KTC ISA card, only for base system with PCI
K = Ethernet PCI and KTCX ISA card, only for base system with PCI
Z = None

Position #9

Power Input/Line Cord

A = 120/240V ac Input with USA power cord
B = 120/240V ac Input no power cord

Position #10

Pre-installed Operating System

A = MS-DOS v6.22
B = Windows 95
D = Windows NT Workstation 4.0
Z = None

Position #11

Pre-installed Application Software

H = RSView32 Runtime 150 with LINX
I = RSView32 Runtime 300 with LINX
J = RSView32 Runtime 1500 with LINX
K = RSView32 Runtime with LINX
Z = None

6156 Industrial 14-inch CRT Monitor

6156 – — — — — — — — — — — — — — — —
1 2 3 4 5 6 7 8 9 10

Position #1

Bulletin Number

6156 = 14-inch CRT Monitor

Position #2

Base Unit

A = Panel/Rack, (7U) 640 × 480 to 1024 × 768

Position #3

Touch Screen/Keypads

AB = Keypad with 10Fkeys, Resistive Anti-glare Touch Screen
AD = Keypad with 10Fkeys, Capacitive Anti-glare Touch Screen
AZ = Keypad with 10Fkeys, not Touch Screen
BB = Resistive Anti-glare Touch Screen only
BD = Capacitive Anti-glare Touch Screen only
BZ = No Keypad, No Function keys, No Touch Screen

Position #4

Video Connectors (on Unit)

A = HD15 (standard)
B = HD15 and DB13C3
C = HD15 and 4-BNC

Position #5

Power Input/Line Cord

A = 120/240V ac with USA Power Cord
B = 120/240V ac with No Power Cord

6156 Industrial 14-inch CRT Monitor (*continued*)

Position #6

Reserved

Z = None (Option Letter Required)

Position #7

Video Cable

A = HD15-HD15, 1.83m (6 ft) (standard)
B = HD15-HD15, 4.57m (15 ft) (standard)
C = HD15-DB13C, 1m (3.3 ft)
D = HD15-DB13C3, 5m (16.4 ft)
E = HD15-DB13C3, 10m (32.8 ft)
F = BNC-BNC, 1.83m (6 ft)
G = BNC-BNC, 5m (16.4 ft)
Z = None

Position #8

Serial Cable for Touch Screen

A = DB9F-DB9F, 1.83m (6 ft)
B = DB9F-DB9F, 5m (16.4 ft)
C = DB9F-DB9F, 10m (32.8 ft)
D = DB9F-DB25, 1.83m (6 ft)
Z = None

Position #9

Keyboard Extension Cable

A = 5-pin DIN keyboard extension cable 1.83m (6 ft) (keypads only)
B = 5-pin DIN keyboard extension cable 5m (16.4 ft) (keypads only)
Z = None

Position #10

Reserved

Z = Reserved (option Letter Required)

6157 Industrial 20-inch CRT Monitors

6157 –

1 2 3 4 5 6 7 8 9 10

Position #1

Bulletin Number

6157 = 20-inch CRT Monitor

Position #2

Base Unit

AA = Panel/NEMA 4, 1024 × 768 autosync
BA = Panel/NEMA 4, 1280 × 1024
BB = Rackmount 640 × 480 to 1280 × 1024
BC = Benchtop 640 × 480 to 1280 × 1024
BD = Desktop 640 × 480 to 1280 × 1024
BE = Panelmount, NEMA 4, 1280 × 1024, Front Video Controls

Position #3

Touch Screen

B = Resistive Anti-glare Touch Screen Benchtop (2-BC)
B = Resistive Anti-glare Touch Screen Rackmount (2-BB)
B = Resistive Anti-glare Touch Screen Panelmount (2-AA,BA)
B = Resistive Anti-glare Touch Screen Panelmount, with Front Controls (2-BE) only
C = Resistive Polished Touch Screen Benchtop (2-BC)
C = Resistive Polished Touch Screen Rackmount (2-BB)
C = Resistive Polished Touch Screen Panelmount (2-AA,BA)
C = Resistive Polished Touch Screen Panelmount with Front Controls (2-BE) only
D = Capacitive Anti-glare Touch Screen (Bonded) Benchtop (2-BC)
D = Capacitive Anti-glare Touch Screen (Bonded) Rackmount (2-BB)
D = Capacitive Anti-glare Touch Screen Panelmount (2-AA,BA)
D = Capacitive Anti-glare Touch Screen Panelmount (2-BE) only
E = Capacitive Polished Touch Screen Panelmount (2-AA,BA)
E = Capacitive Polished Touch Screen Panelmount with Front Controls (2-BE) only
F = Surface Acoustic Wave Anti-glare Touch Screen Benchtop (2-BC)
F = Surface Acoustic Wave Anti-glare Touch Screen Rackmount (2-BB)
F = Surface Acoustic Wave Anti-glare Touch Screen Desktop (2-BD)
G = Surface Acoustic Wave Polished Touch Screen Benchtop (2-BC)
G = Surface Acoustic Wave Polished Touch Screen Rackmount (2-BB)
G = Surface Acoustic Wave Polished Touch Screen Desktop (2-BD)
Y = No Touch Screen, Polycarbonate Window (2-BE only)
Z = No Touch Screen, Polycarbonate Window (2-AA, BA only)
Z = No Touch Screen (2-BB, BC, BD, BE)

Position #4

Video Connectors (on Unit)

A = HD15
B = HD15 and DB13C3 (2-AA only)
C = HD15 and 4 BNC

Position #5

Power Input/Line Cord

A = 120/240V ac with USA Power Cord
B = 120/240V ac with No Power Cord

Position #6

Options

A = Mu-metal shadow mask shield (for magnetic fields)
Z = None

Position #7

Video Cable

A = HD15-HD15, 1.83m (6 ft) (for 4-A)
B = HD15-HD15, 4.57m (15 ft) (for 4-A)
C = HD15-DB13C, 1m (3.3 ft) (for 4-B only)
D = HD15-DB13C3, 5m (16.4 ft) (for 4-B only)
E = HD15-DB13C3, 10m (32.8 ft) (for 4-B only)
F = BNC-BNC, 1.83m (6 ft) (for 4-C only)
G = BNC-BNC, 5m (16.4 ft) (for 4-C only)
Z = None

6157 Industrial 20-inch CRT Monitors *(continued)*

Position #8

Serial Cable for Touch Screen

A = DB9F-DB9F, 1.83m (6 ft)
B = DB9F-DB9F, 5m (16.4 ft)
C = DB9F-DB9F, 10m (32.8 ft)
D = DB9F-DB25, 1.83m (6 ft)
Z = None

Position #9

Reserved

Z = Future (option letter required)

Position #10

Accessories

A = Tilt Swivel Base (Benchtop only, 2-BC)
A = Tilt Swivel Base (Desktop only, 2-BD)
B = Slides, Rackmount, Pair 18-inch
C = Slides, Rackmount, Pair 24-inch
Z = None

6158 Industrial Monitors with 21-inch CRT, Panelmount

6158 – — — — — — — — — —
1 2 3 4 5 6 7 8 9 10

Position #1

Bulletin Number

6158 = 21-inch CRT Monitor

Position #2

Base Unit

AA = Panelmount/NEMA 4

Position #3

Touch Screen

A = Cap-AG Touch Screen
Y = No Touch Screen, Polycarbonate window
Z = No Touch Screen, No Polycarbonate window

Position #4

Video Connectors (on Unit)

A = HD15
C = HD15 and 4 BNC

Position #5

Power Input/Line Cord

A = 120/240V ac with USA Power Cord
B = 120/240V ac with No Power Cord

Position #6

Options

Z = Reserved (Option letter required)

Position #7

Video Cable

A = HD15-HD15, 1.83m (6 ft)
B = HD15-HD15, 4.57m (15 ft)
C = BNC-BNC, 1.83m (6 ft)
D = BNC-BNC, 4.57m (15 ft)
Z = None (Option letter required)

Position #8

Serial Cable for Touch Screen

A = DB9F-DB9F, 1.83m (6 ft) (for Touch Screen only)
B = DB9F-DB9F, 5m (16.4 ft) (for Touch Screen only)
C = DB9F-DB9F, 10m (32.8 ft) (for Touch Screen only)
D = DB9F-DB25, 1.83m (6 ft) (for Touch Screen only)
Z = None

6158 Industrial Monitors with 21-inch CRT, Panelmount *(continued)*

Position #9

Reserved

Z = None (Option letter required)

Position #10

Reserved

Z = None (Option letter required)

6159 Industrial Monitors with 17-inch CRT

6159 – — — — — — — — — —
1 2 3 4 5 6 7 8 9 10

Position #1

Bulletin Number

6159 = 17-inch CRT Monitor

Position #2

Base Unit

AA = Panel/Rackmount, 1280 × 1024

Position #3

Touch Screen

A = Capacitive Antiglare Touch Screen
B = Resistive Antiglare Touch Screen
Z = Polycarbonate Window, No Touch Screen

Position #4

Video Connectors (on Unit)

Z = Integral Video Cable, HD15

Position #5

Power Input/Line Cord

A = 120/240V ac with USA Power Cord
B = 120/240V ac with No Power Cord

Position #6

Reserved

Z = Reserved

Position #7

Video Cable

Z = Integral Video Cable, HD15

Position #8

Serial Cable for Touch Screen

A = DB9F-DB9F, 1.83m (6 ft)
B = DB9F-DB9F, 5m (16.4 ft)
C = DB9F-DB9F, 10m (32.8 ft)
D = DB9F-DB25, 1.83m (6 ft)
Z = None

Position #9

Reserved

Z = Reserved

Position #10

Accessories

B = Slides, Rackmount, Pair, 18-inch
C = Slides, Rackmount, Pair, 24-inch
Z = None

6180 Industrial Computers with Flat TFT Displays

6180 – — — — — — — — — —
1 2 3 4 5 6 7 8 9 10 11

Position #1

Bulletin Number

6180 = Industrial Computer

Position #2

Processor & Motherboard

AB = 8-slot Active MB, Pentium 100 MHz

AC = 8-slot Active MB, Pentium 133 MHz

AD = 8-slot Active MB, Pentium 166 MHz

AE = 8-slot Active MB, Pentium 200 MHz

Position #3

Base Unit

A = No Display, Metal Bezel, NEMA 1

B = No Display, Front Access Bezel, NEMA 4X indoor

C = 10.4-inch TFT (QuickReplace Backlight), NEMA 4X indoor

D = 10.4-inch TFT (QuickReplace Backlight), Touch Screen, NEMA 4X

E = 11.3-inch TFT (Standard Backlight), NEMA 4X indoor

F = 11.3-inch TFT (Standard Backlight), Touch Screen, NEMA 4X

G = 10.4-inch TFT with Quick Replace Backlight, Alphanumeric Keypad, NEMA 4X Indoor

Position #4

Video Card

B = PCI, 2M byte DRAM

C = PCI, 4M byte SGRAM (Base Option A or B only)

Z = None (Base Option A or B only)

Position #5

Gold Plated SIMMS

C = 8M bytes EDO RAM (two 4M byte)

D = 16M bytes EDO RAM (two 8M byte)

E = 32M bytes EDO RAM (two 16M byte)

F = 64M bytes EDO RAM (four 16M byte, banks full)

Position #6

Hard Drive

C = 2.0 Gbyte EIDE

D = 80M byte EIDE Solid State Flash

E = 1.6 Gbyte . EIDE

Z = None

Position #7

Removable Media

A = 1.44-M byte 3.5-inch Diskette Drive, Front Access

B = 1.44-M byte 3.5-inch Diskette Drive, Side Access

C = EIDE CDROM Drive

D = EIDE CDROM Drive and 1.44-M byte 3.5-inch Drive (Side Access)

Z = None

Position #8

Pre-installed Option Cards

B = ETHERNET Card (PCI Bus) Combo, Bus Master

C = KTX Card (Remote I/O Scanner – 1 channel, ISA Bus)

D = KTXD card (Remote I/O Scanner – 2 channel, ISA Bus)

F = KTC card (ControlNet Personal Interface, ISA Bus)

G = KTCX card (ControlNet Deluxe ISA Bus)

H = Ethernet (PCI) card and KTX (ISA) card

I = Ethernet (PCI) card and KTXD (ISA) card

J = Ethernet (PCI) card and KTC (ISA) card

K = Ethernet (PCI) card and KTCX (ISA) card

Z = None

Position #9

Power Cord

A = 120/240V ac, 160 Watt with USA power cord

B = 120/240V ac 160 Watt no power cord

6180 Industrial Computer with Flat Display Option (continued)

Position #10

Operating System

B = Windows 95

C = Windows NT Workstation 4.0

Z = None

Position #11

Application Software

D = RSView32 Runtime 150 with LINX

E = RSView32 Runtime 300 with LINX

F = RSView32 Runtime 1500 with LINX

G = RSView32 Runtime with LINX

Z = None

Industrial Mouse

(Cat. Nos. 6189-DPMOUSE, -DPMOUSEP)

**Features**

- Solid-potted mouse that is rugged and wear-resistant
- Resistant to harsh industrial environments (liquids, gases, and contaminants)
- Maintenance-free and without moving parts
- Connects to either a Microsoft compatible serial interface (RS-232-C) or PS/2 mouse port on your computer

The Industrial Mouse, which is constructed of stainless steel and heavy rubber, comes as a tabletop version shown above that is a fully sealed and submersible mouse (cat. no. 6189-DPMOUSE). A NEMA 4X panelmount version is also available (cat. no. 6189-DPMOUSEP).

Specifications

Compatibilities	
Hardware Interface	RS-232 serial port, PS/2 mouse port
Hardware Compatibilities	IBM PC, PC-AT compatible computers, PC-XT, PS/2
Operating System Compatibilities	DOS, Windows, OS/2, UNIX and others
Software Drivers	Compatible with standard MS drivers
Serial Data Format	Emulates Microsoft or Mouse Systems two-button mouse
Power Consumption	Less than 10mA @ 5V dc
Physical	
Approximate Overall Dimensions	Desktop: 12.8 × 10.8 × 2.5 cm (5.0 × 4.25 × 1.0 in) Panelmount: 15.88 × 13.97 × 2.11 cm (6.25 × 5.50 × 0.83 in)
Approximate Weight	0.9 kg (2.0 lb) including cable
Primary Materials	Stainless Steel, silicone rubber buttons, and silicone potting material
Cables	Standard - 1.8 m (6 ft) shielded cable with 9-pin D-sub serial connector (PS/2 adapter included) Panelmount - Per standard cable, but includes in-line, low-profile disconnect for use with enclosure cord grips
Environmental	
Operating Temperature	0 to 60° C (32 to 140° F)
Non-operating Temperature	-40 to 85° C (-40 to 185° F)
Agency Approval	Meets NEMA 4, 4X, 6P, 12, and 13; CE Mark pending; CUR 1950, CUL
Chemical Resistance	Bleach, soap, alcohol, oil, saline, Cidex 7
Vibration	Operating 2 g, 10-150 Hz Non-operating 30 g, 10-150 Hz

Features

Choose the industrial keyboard with the features that best suits your needs.



The Industrial PC/AT Keyboards are lightweight and boast a long-life technology. They have EMI/RFI shielding and a rugged design that helps protect them from many harsh substances.

Panelmount Membrane

(cat. no. 6160-KBM1)

- For NEMA 4 control panels or 19-inch racks
- Sealed Membrane Technology
- Lock LED indicators
- Sealed switches
- Protective legend overcoating

Industrial Tabletop
(cat. no. 6160-KBE1)

- For harsh environments where a tabletop spill-resistant keyboard is preferred
- Sealed Elastomer Technology
- Lock LED indicators
- Durable lightweight construction
- Tactile response

Industrial Tabletop
(cat. no. 6160-KBD1)

- A traditional tabletop keyboard with full-travel keys
- Long-lasting printing on keys
- Lock LED indicators
- Keyboard cover (cat. no. 6169-KC)

Specifications

	Panel-mount Membrane (cat. no. 6160-KBM1)	Industrial Tabletop (cat. no. 6160-KBE1)	Industrial Tabletop (cat. no. 6160-KBD1)
NEMA Rating	NEMA Type 4 and 12 rated (panel mount only)	NEMA Type 13 rated	Not Applicable
Mounting	#10-32 threaded studs; keyboard has nuts for its 16 studs	two extension legs	
Mounting Holes (diameter)	7.14 mm (.281 in)	Not Applicable	
Dimensions	483 × 222 × 25.4 mm (19 × 8.75 × 1 in)	448 × 194 × 31.7 mm (17.625 × 7.625 × 1.25 in)	489 × 213 × 38.1 mm (19.25 × 8.375 × 1.5 in)
Footprint	165.73 mm (6.525 in)	193.04 mm (7.6 in)	210.82 (8.3 in)
Number of Keys	101 (changeable legends)	101	101 (102 international)
Key Total Travel	Not Applicable	1.0 mm (.04 in)	3.8 mm (.150 in)
Key Actuating Force	Not Applicable	150 gm (5 oz)	308 gm (11 oz)
Operating Temperature	0 to 55° C (32 to 131° F)		
Storage Temperature	-40 to 65° C (-40 to 149° F)		
Humidity (operating and non-operating)	5 to 95% (without condensation)		
Altitude (operating)	3,657.60m (0 to 12,000 ft)		
Input Power	350 ma (maximum) @ 5V dc 250 ma (typical) @ 5V dc		
Serial Input/Output	IBM-enhanced AT-compatible		
Computer End	Standard 5-pin DIN connector - 7 ft extended shielded coil cord (PS/2 adapter included)		
Shipping Weight			
Alphanumeric keypad:	308 gm (11 oz)	1.13 kg (2 lb, 8 oz)	1.47 kg (3 lb, 4 oz)
Function keypad:	616 gm (22 oz)	1.5 kg (3 lb, 5 oz)	1.9 kg (4 lb, 3 oz)

Operator Interface Enclosures

ViewPort Operator Interface Enclosures

(Cat. No. 1891 Series)



ViewPort™ Operator Interface Enclosures are tabletop, wall-mount, overhead-mount, and pedestal-mount enclosures designed to house PanelView 1200, 1200e, and 1400e terminals in harsh or hazardous environments.

The ViewPort housings are either aluminum (NEMA 4) or stainless steel (NEMA 4X). An optional Z-purge is available for hazardous environments such as Class I, Division 2 areas. Each ViewPort enclosure comes *fully assembled* with the selected PanelView terminal already installed.

Features

- Adjustable tilt assembly allows up to 30° of movement and includes a locking disk to maintain the desired viewing angle
- Swivel assembly provides for 180° of horizontal rotation
- Base plate of 20 inches × 20 inches with rubber feet provides anchor-free table top mounting
- A universal mounting trunnion provides for wall or overhead mounting
- Thumbscrews on removable front plate and rear panel provide easy access
- Handles on front plate allow for quick removal of the PanelView terminal for servicing
- Removable rear panel facilitates direct power and communication wire termination
- Optional gasketed cable-way simplifies field installation by eliminating the need for conduit knock-outs
- Fully warranted by the Rockwell Automation

Ordering Information

You can order PanelView products housed inside ViewPort enclosures only through the Industrial Automation Systems Flex Factory Team (see page [11-11](#)).

Base configuration includes an adjustable tilt and swivel assembly, which provides for tabletop and pedestal mounting, and can be easily modified for wall or overhead mounting by removing the swivel assembly and base plate.

When placing an order, use the tables below to identify two catalog numbers: one representing the ViewPort enclosure and one representing the PanelView terminal (see Compatibility below).

1891-VP4 _ _ _
1 2 3

Description	Options
1 ViewPort housing	O Aluminum housing (NEMA 12/4) X Stainless steel housing (NEMA 4x)
2 Cable entry plate *	O Conduit knock-out G Gasketed cable-way
3 Optional purging **	O No purge Z Z-purge

* The conduit knock-out plate is required for NEMA 4, NEMA 4x, and Z-purge installations. The gasketed cable-way reduces the overall ViewPort enclosure rating to NEMA 12.

** Z-purging is for Class I, Division 2 environments. Touch-screen PanelView terminals are not suitable for Class I, Division 2 environments.

You can also order a steel (cat. no. 1891-PED) or stainless steel (cat. no. 1891-PEDX) fixed mounting pedestal. The pedestal, which weighs 95 pounds and is 38 inches high, has a 12-inch × 12-inch base plate and four 0.5-inch diameter mounting holes. Pedestals are shipped separately.

Compatibility

ViewPort enclosures can house the following A-B products:

PanelView 1200 Terminals page 7-42	PanelView 1200e Terminals page 7-40	PanelView 1400e Terminals page 7-40
• 2711-KA1 ¹	• 2711E-K12C6 ¹	• 2711E-K14C6 ¹
• 2711-KC1 ¹	• 2711E-K12C6L2 ¹	• 2711E-T14C6
• 2711-TA1	• 2711E-T12C4	
• 2711-TA4	• 2711E-T12C6	
• 2711-TC1		
• 2711-TC4		

¹ The Z-purge version of the ViewPort (cat. no. 1891-VP400Z or 1891-VP4X0Z) is **Factory Mutual Research Approved** with these Allen-Bradley products for Class I, II, Division 2; Groups A, B, C, D, E, F, G. Be aware that Class II, Group E must be rated as Division 1. Touch-screen CRT devices are not suitable for Class I, Division 2 installations.

For specifications and dimensions, see page [7-59](#).

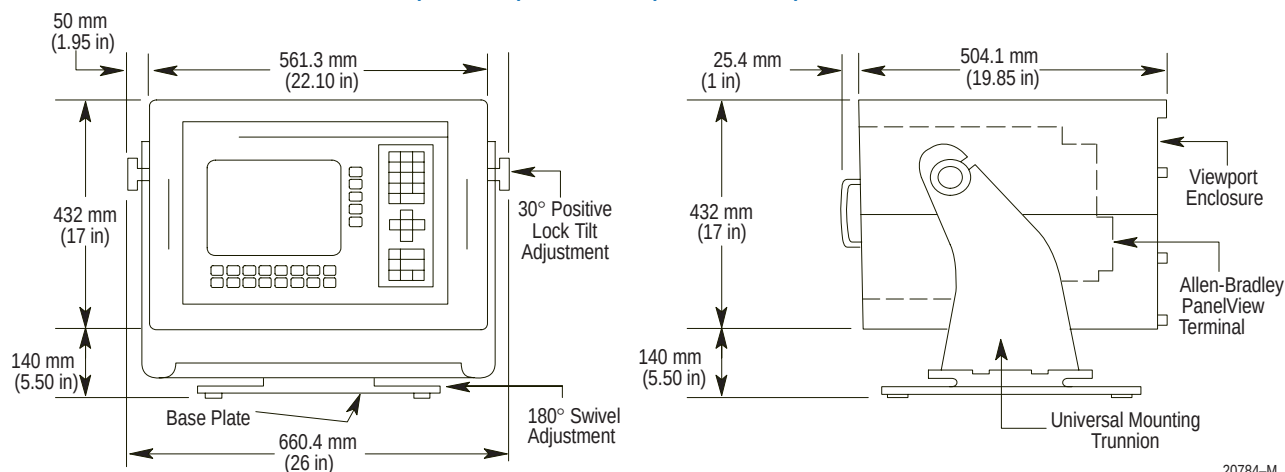
Operator Interface Enclosures
ViewPort Operator Interface Enclosures
(Cat. No. 1891 Series)

Specifications

Catalog Numbers	1891-VP4000, -VP40G0 -VP4X00	Weight (without PanelView terminal)	40.9 kg (90 lb)
		Temperature	External cooling is not required if ambient temperatures do not exceed 43° C (110° F)
1891-VP4000, -VP400Z		Internal material	Aluminum
		External material	Painted aluminum [Paint: S-W Polane T-Plus, Textured (charcoal gray)]
1891-VP4X00, VP4X0Z		Internal material	Aluminum
		External material	Stainless steel
1891-VP400Z, 1891-VP4X0Z		Weight (without PanelView terminal)	54.5 kg (120 lb)
		Temperature	External cooling is not required if ambient temperatures do not exceed 43° C (110° F)
		Z-purge pneumatic	• Inert gas supply requirements of 80 to 100 PSI. • Approximate air/gas consumption: - Normal operation: 7-10 SCFH - Rapid exchange: 240 SCFH for 10 min. - Average enclosure pressure 0.25-0.50 in.
		Z-purge electrical	• 120V, 60Hz, 15A maximum • Internal 4-outlet surge suppressor • Alarm contact, 15A maximum

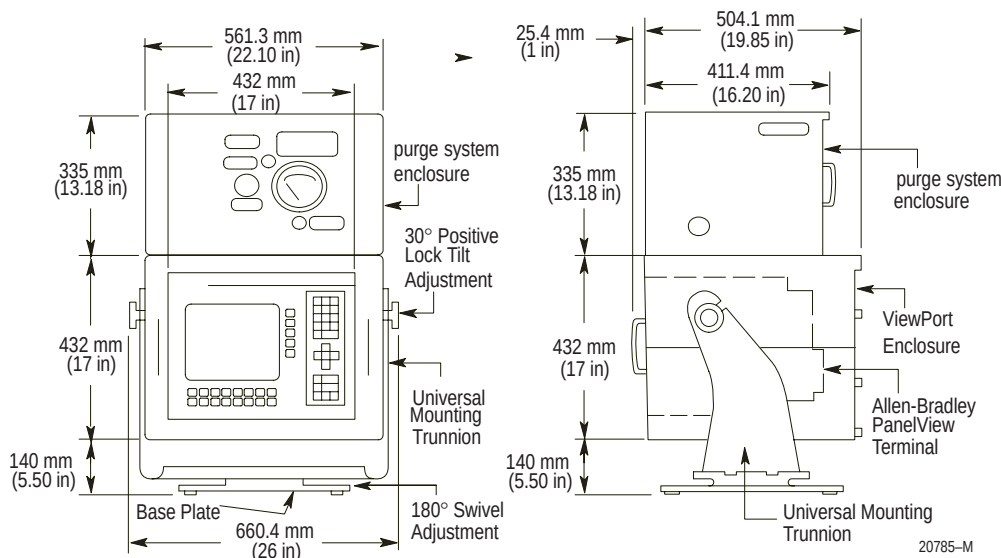
Dimensions

ViewPort 1891-VP4000 (Aluminum) and -VP4X00 (Stainless Steel) Enclosures



20784-M

ViewPort 1891-VP400Z (Aluminum) and -VP4X0Z (Stainless Steel) Enclosures with Z-purge



20785-M

Some of the operator interface products covered in this section have NEMA ratings. This page provides an overview of the NEMA Types referenced in this section. For complete definitions, descriptions, and test criteria, see the National Electrical Manufacturers Association (NEMA) standards Publication No. 250.

NEMA 4

Type-4 enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, and hose-directed water; and to be undamaged by the formation of ice on the enclosure. They are designed to meet hosedown, dust, external icing (undamaged after ice which built up during specified test has melted but **not** required to be operable while ice-laden), and rust-resistance design tests. They are not intended to provide protection against conditions such as internal condensation or internal icing. Enclosures are made of heavy gauge stainless steel, cast aluminum or heavy gauge sheet steel, depending on the type of unit and size. Cover has a synthetic rubber gasket. For complete definitions, descriptions, and test criteria, see the National Electrical Manufacturers Association (NEMA) standards Publication No. 250.

NEMA 4X Non-Metallic, Corrosion-Resistant Fiberglass Reinforced Polyester

Type-4X enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, and hose-directed water; and to be undamaged by the formation of ice on the enclosure. They are designed to meet hosedown, dust, external icing (undamaged after ice which built up during specified test has melted but **not** required to be operable while ice-laden), and rust-resistance design tests. They are not intended to provide protection against conditions such as internal condensation or internal icing. Enclosures are fiberglass reinforced polyester with a synthetic rubber gasket between cover and base. Ideal for such industries as chemical plants and paper mills. For complete definitions, descriptions, and test criteria, see the National Electrical Manufacturers Association (NEMA) standards Publication No. 250.

NEMA 12

Type-12 enclosures are intended for indoor use primarily to provide a degree of protection against dust, falling dirt, and dripping non-corrosive liquids. They are designed to meet drip (no water has entered enclosure during specified test), dust, and rust-resistance tests. They are not intended to provide protection against conditions such as internal condensation. Refer to NEMA publication no. 250 for complete test specifications.

NEMA 13

Type-13 enclosures are intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil, and non-corrosive coolant. They are designed to meet oil exclusion and rust resistance design tests. They are not intended to provide protection against conditions such as internal condensation. Refer to NEMA publication no. 250 for complete test specifications.

RSView Software

RSView software ([page 7-62](#)) provides monitoring, control, and data acquisition functions in the Microsoft Windows 32-bit environment. Through its open platform, **RSView** software guides you through your automation process and gives you ODBC, OLE, and DDE capabilities. **RSView** software provides object-oriented graphics with animation, open database format, trending, alarming, data logging, derived tags, and event detection.

WINTelligent VIEW Software

WINTelligent VIEW software ([page 7-64](#)), industrial software that takes advantage of the powerful Microsoft Windows 16-bit environment, lets you develop and run animation, alarms, data analysis, security, and an action/reaction system. **VIEW** software communicates via AdvanceDDE, which enhances DDE communication between Microsoft Windows applications.

WINTelligent RECIPE Software

WINTelligent RECIPE software (cat. no. 9304-WRM300D) helps you manage data ([page 7-65](#)). It uses a spreadsheet for downloading values and .csv file formats for storing values. With **RECIPE**'s scheduler, you can download recipes at specific times or based on events. **RECIPE** software is a DDE client that lets you integrate **WINTelligent LINX** software with DDE servers.

RSTrend Software

RSTrend software (cat. no. 9304-WTD300) is the Microsoft Windows 32-bit software tool you need for data acquisition, data scaling, trending, and logging of real-time and historical data ([page 7-66](#)). You can accurately measure data values on the graph, which makes data comparison and analysis fast and easy. Data is logged to a .dbf file, so that you can use third-party packages for other data manipulation. **RSTrend** software is a DDE client that lets you integrate **WINTelligent LINX** software with DDE servers.

ControlView Software

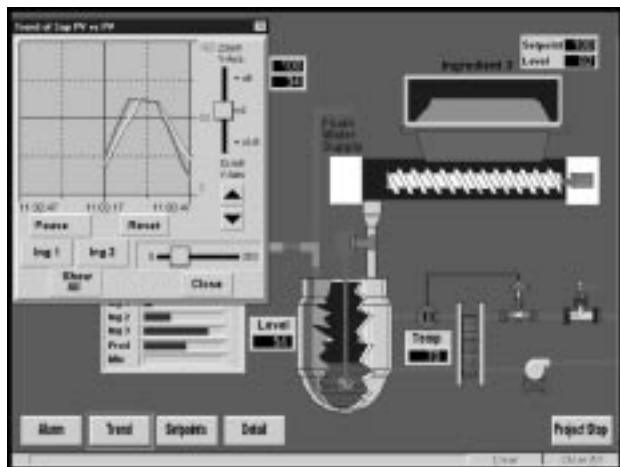
ControlView Software ([page 7-67](#)) is the MMI/Supervisory software you need to monitor and control real-time data in the MS-DOS environment. The **ControlView** tools let you animate your process, configure your databases, alarms, trends, event detectors, data logs, and derived tags. With **ControlView** software, you can customize your applications to meet your needs.

RSTools and RSWorkbench Products

RSTools ActiveX Controls ([page 7-71](#)) and **RSWorkbench** Development Environment ([page 7-73](#)) are part of a new family of ActiveX controls that provides a component approach to monitoring, control and data acquisition functions in the Microsoft Windows NT or Windows 95 environment.

RSPower Software

The **RSPower**™ power device and monitoring tool ([page 7-70](#)) is a Windows-based software program that accurately represents power systems in your facility by configuring and displaying data from Allen-Bradley Bulletin 1400 Powermonitors.



RSView Software provides monitoring, control, and data acquisition functions in the Microsoft Windows 32-bit environment. It uses an open-platform to guide you through your automation process, thus giving you ODBC, OLE, and DDE capabilities.

RSView software provides interoperability between Rockwell Software and Microsoft products. It improves upon traditional methods for MMI functionality by providing object-oriented animation of graphics, an open database format, .DBF historical data storage, and enhanced capabilities for trending, alarming, derived tag creation, and event detection.

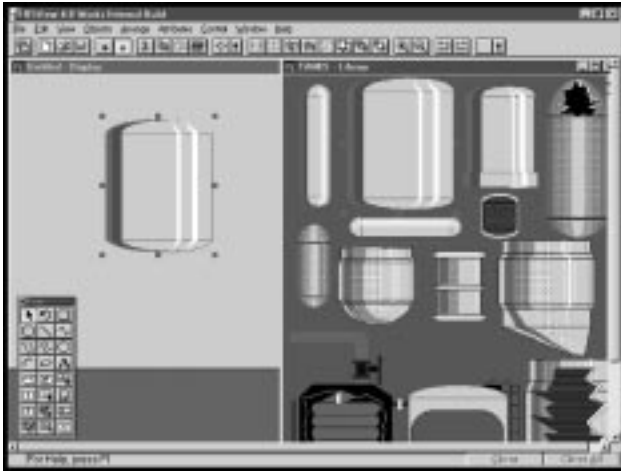
Benefits

- **Interoperability with WINTelligent LINX, WINTelligent RECIPE, and WINTelligent LOGIC software, and PanelView 1200e terminals.** Interoperability with Rockwell Software and A-B products adds functionality and saves time. WINTelligent LINX software provides DDE drivers for Allen-Bradley, Modicon®, Square D, GE, Reliance, plus over 100 third-party companies that are currently developing DDE drivers for LINX software. In addition, interoperability with LINX software offers full functionality of all LINX tools such as SuperWho, used for showing network configuration, and LINX diagnostic tools. There's no need to develop tags twice. Browse and select WINTelligent LOGIC and A.I. tags, and use them in **RSView software's** applications. Display a specific rung of ladder logic in response to an event such as an alarm. Interoperability with WINTelligent RECIPE software and PanelView 1200e terminals helps prevent re-development. Download a WINTelligent RECIPE based on demand. Share tags between **RSView software** and PanelView 1200e terminals.
- **Interoperability with Microsoft products.** **RSView software** is interoperable with Microsoft products such as Excel, Word, crystal reports, and Visual Basic.

- **Object-oriented graphics.** With sophisticated object-oriented graphics, **RSView software** makes development fast and easy. With OLE drag and drop, **RSView software** lets you easily choose from a large selection of library objects — gauges, tanks, pipes, faceplates, buttons, and many more. Based on Microsoft standards, **RSView software's** graphics editor lets you drag-and-drop from a library, cut/paste objects from the clipboard internal and external to **RSView software**, develop and display in any video resolution, as well as import third-party graphics, .dxf, .bmp, .wmf. To make the graphic displays more useful, you can embed trends, numeric displays, alarm summaries, and OLE applications into graphic screens.
- **Productivity tools.** **RSView software** provides tools that let you keep your process up and running while making changes. Edit graphic displays while running other displays, test animation from within the graphics editor before going online with a PLC processor, and modify tag addresses, node addresses, PLC networks, and device drivers on the fly.
- **Animation links.** **RSView software** is the only application that includes an object editing mode — the ability to modify attributes of a custom object without first destroying the object and rebuilding it later. The individual parts or the entire object can be animated with position, fill, touch, visibility, rotation, OLE Verb, and other animation controls. **RSView software** introduces Object Smart Path, the ability to interactively select animated object sizes and positions, leaving painstaking details of counting pixels a thing of the past.
- **Open Database Connectivity (ODBC).** Open Database Connectivity is a standard developed by Microsoft that lets database formats become available to third-party tools. All **RSView** tag and system configurations are stored in an ODBC compliant database, which allows configuration creation/modification from a long list of third-party tools. These third-party tools can be used to create custom reports and to merge the contents of the configuration with other databases.
- **OLE (Object Linking and Embedding).** **RSView** offers complete OLE support, which allows third-party OLE applications to be seamlessly embedded into **RSView** graphic displays for in-place editing. In-place editing makes all the functionality of the original application available from within **RSView software**, which extends **RSView software's** capabilities beyond that of traditional MMI. For example, **RSView software** can contain an Excel spreadsheet whose contents can be modified directly from **RSView** displays while maintaining full Excel spreadsheet functionality.

(Continued)





Benefits (continued)

- **Alarms.** RSView alarming has digital and analog alarms with 8 thresholds and 8 levels of severity. Alarm summaries can be embedded directly into RSView displays for quick viewing of one or all alarms. Analog alarming contains provisions for indirect threshold assignments from other RSView tag values, removing the headache of working with seasonal alarming. Digital alarming allows alarms to be set when data values change state, and each alarm can be logged or printed and filtered with a variety of tools.
- **Trends.** RSView trend capabilities are flexible — data can come from real-time data values or from historical data files. You can display information even when data isn't being logged. The capability of 16 pens per trend and the ability to display as many trends as desired gives RSView software increased flexibility. Finally, trend objects can be transparent, allowing the comparison between actual and predicted values.
- **Networking features.** RSView software provides capabilities to create a networked system. RSView nodes can retrieve most configuration data from a file server. RSView software relies on AdvanceDDE format for optimum throughput. Global alarming and remote historical data retrieval further facilitate multi-node operations to create a flexible, easily maintained system.
- **Communication.** RSView software's robust communication system dynamically optimizes for minimum network traffic and optimum performance; does error checking on a per tag basis; and hot switches between drivers on error. RSView software lets you choose between direct drivers for A-B processors or DDE servers. RSView software supports WIntelligent LINX software, Data Highway Plus, DH-485, DF1, and Ethernet for A-B processors as well as available DDE drivers for other programmable controllers and devices.

Built to Order

We offer built-to-order combinations of the following RSView products so you can select the bundle you want to use to create, test, and run your operator interface applications.

- **RSView Software** lets you create, test, and run your applications in the Microsoft Windows 32-bit environment. It provides a development system with runtime functionality in sizes of 150, 300, 1500, or 32,000 tags that give you data acquisition, supervisory monitoring and control, and information management functions.
- **Device Drivers** communicate with the A-B complete line of PLC processors over DH+, DH-485, DF1, and TCP/IP-over-Ethernet networks.
- **DDE Drivers** communicate via WIntelligent LINX drivers to programmable controllers and other DDE server applications.

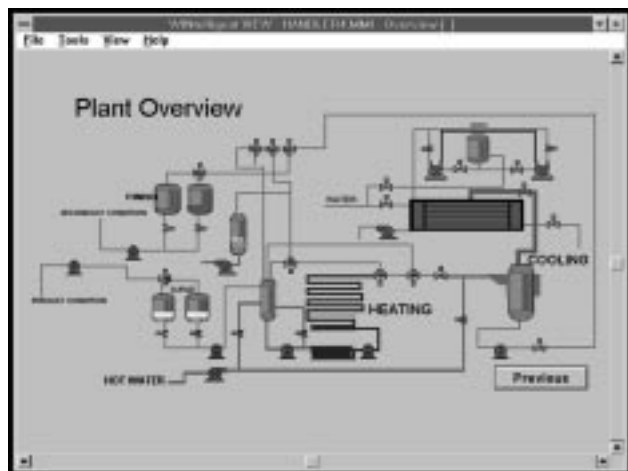
Ordering Information

Catalog Number	Product
9301-2SE-2400	RSView Works
9301-2SE-2401	RSView Works with WIntelligent LINX for A-B processors (LINX for A-B)
9301-2SE-3400	RSView Runtime
9301-2SE-3401	RSView Runtime with LINX for A-B
9301-2SE-2300	RSView Works 1500
9301-2SE-2301	RSView Works 1500 with LINX for A-B
9301-2SE-3300	RSView Runtime 1500
9301-2SE-3301	RSView Runtime 1500 with LINX for A-B
9301-2SE-2200	RSView Works 300
9301-2SE-2201	RSView Works 300 with LINX for A-B
9301-2SE-3200	RSView Runtime 300
9301-2SE-3201	RSView Runtime 300 with LINX for A-B
9301-2SE-2100	RSView Works 150
9301-2SE-2101	RSView Works 150 with LINX for A-B
9301-2SE-3100	RSView Runtime 150
9301-2SE-3101	RSView Runtime 150 with LINX for A-B

System Requirements

Operating System	• Windows 95 • Windows NT (future release)
PLC Processor	• PLC-2 processor • PLC-3 processor • PLC-5/250 processor (supported with WIntelligent Linx software DDE tags) • PLC-5 (Enhanced, Ethernet, Local I/O) • SLC 500 family of processors
Networking	• Supports any Windows-compatible network





WInelligent VIEW 16-bit Windows software is a visual graphics system that simultaneously modifies and animates data values (data points) through state changes, bargraphs, numeric, string, color changes, embedded trends, and slider bars to animate values. The Action/Reaction system automates WInelligent VIEW software.

VIEW software communicates through AdvanceDDE servers, such as Rockwell Software LINX products, or any Windows DDE-compliant server.

Features

- Provides several tools for process variable animation: the bargraph, vessel fill, color change, and numeric animations can have 64 different levels for color change based on process variable value
- Includes ASCII string, PC date, PC time, buttons, alarm views and embedded trends
- Can trend up to 16 process variables per animation and log data to a DBF file format
- Contains simple dialog boxes that let you easily configure display formats, operator functions, and scaling
- Has a visual action/reaction system that handles all operator input (alarming, product interaction, downloading values, and screen display); users configure actions and reactions with simple dialog boxes rather than with script programming
- Links logical expressions together to trigger one or more reactions
- Can play sounds for different alarms or change a picture based on severe alarms
- Acts as an industrial program manager for factory-floor use and can start or bring focus to other applications; sends keystrokes and interaction commands (DDE Execute) to other applications and reads and writes to DDE Items. These reactions can be triggered by process variable change, keyboard keys or buttons.



System Requirements

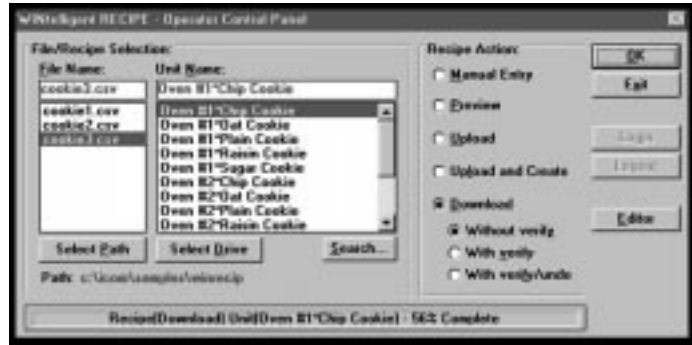
- IBM compatible 486 33-MHz computer
- MS-DOS v5.0 operating system
- Microsoft Windows v3.1 operating system
- 16M-byte RAM
- 20M-byte hard disk space
- 16-color VGA graphics adapter
- any Windows-compatible pointing device

Ordering Information

Catalog Number	Product Characteristics
9304-WVD300	3,000-tag development system with one 3,000-tag runtime
9304-WVR300	3,000-additional-tag runtime
9304-WVD256	256-tag development system with one VIEW 256-tag runtime
9304-WVR256	256-additional-tag runtime
9304-WVD128	128-tag development system with one VIEW 128-tag runtime
9304-WVR128	128-additional-tag runtime



	Description	PLC Data Value	Data Set Value
Eng 1	Eng Tracking Info: B1	111	222
Eng 2	Eng Tracking Info: B2	456	3456
Eng 3	Eng Tracking Info: B3	67	67
Eng 4	Eng Tracking Info: B4	45	45
Eng 5	Eng Tracking Info: B5	10	800
Eng 6	Eng Tracking Info: B6	67	500
Eng 7	Zone Temp B1	68.12345	68.12345
Eng 8	Zone Temp B2	66.12300	45.05432
Eng 9	Sequence Output B1	11110000000010	00000000000010
Eng 10	Sequence Output B2	11000000000011	00000000000011
Eng 11	Sequence Output B3	11111111100100	00000000000010
Eng 12	Sequence Output B4	10101010101010	00000000000010
Eng 13	Sequence A Indicate	10000000000000	00000000000000
Eng 14	Sequence B Indicate	11000111000000	00000000000000



WINtelligent RECIPE software is a Microsoft Windows-based application for managing industrial process control recipes used with programmable controllers. With RECIPE software you can upload data from a live process and store the data in an existing recipe or you can download existing recipes to your process and manufacturing applications. RECIPE software's verification and confirmation options tell you whether or not valuable data has been downloaded successfully.

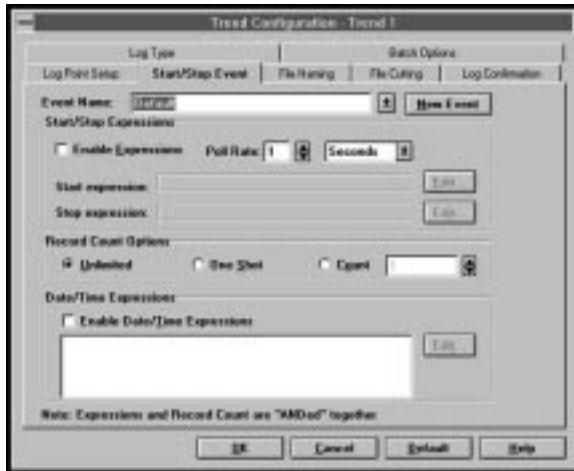
Features

- Displays live process data and the currently selected recipe data in a side-by-side comparison and highlights any mismatches for fast visual reference
- Works with applications that generate DDE Execute requests to:
 - upload, download, preview, and manually change process data
 - upload and create new recipe unit
 - display runtime interface
 - enable, edit, disable scheduler
 - create new recipe or open existing recipe
- Includes a wizard that builds DDE Execute commands and, therefore, reduces the time needed to create the command string
- Can be a standalone system through the use of a runtime interface

- Lets you display and edit multiple recipes at the same time as well as cut, copy, and paste from one recipe to another
- Since each recipe can contain multiple address and data sets, you can define a different range of addresses and also maintain a variety of values for each ingredient defined in your process
- Records basic recipe actions: upload, download, preview, and manual entry, and upload and create recipe unit. The log file contains a date/time stamp, recipe action description, operator login ID, recipe name and recipe file name with path

System Requirements

- IBM compatible 486 33-MHz computer
- MS-DOS v5.0 operating system
- Microsoft Windows v3.1 operating system
- 8M-byte RAM
- 10M-byte hard disk space
- 16-color VGA graphics adapter



RSTrend software is a simple, yet powerful 32-bit application for collecting and monitoring real-time and historical PLC data for Microsoft Windows, Windows 95, and Windows NT operating systems. RSTrend software provides several display formats for the logged data including the familiar strip-chart recorder. Trend graphs can be scaled automatically or manually.

RSTrend software can log data by time, event, unsolicited, or continuously. Data can be acquired from the PLC processor's data table or from a Windows-compliant DDE driver. RSTrend software is designed to work with all members of the Allen-Bradley family of programmable controllers as well as other controllers. Data is logged to disk using the standard DBF™ file format.

With RSTrend software's simple tab dialog menu system, you can set up and begin logging data in minutes.

Features

- **Event-based Logging.** Start or stop logging using global events based on time, PLC values, or DDE events. Each trend can contain a unique Start/Stop log "expression," which can include up to 11 variables.
- **Displaying Real-time and Historical Data.** RSTrend can simultaneously display real-time and historical data. RSTrend software's flexible trend viewer provides pan and zoom options and VCR buttons to adjust the graph to suit your needs. Advanced viewer options are provided for X-Y plots, profiles, and overlays. Viewer settings can be saved in templates and workspaces.
- **WINtelligent Historian and Data Viewer.** The WINtelligent Historian provides a familiar "Calendar" type display for viewing real-time or historical data. Days that contain logged data "light up" in green. Select one or more days and press "Display" to display one or more views of the historical data. With the Historian, you can copy data to another application (e.g. Microsoft Excel) for viewing or analysis.

The Data Viewer provides a numeric display of the logged data, which can be displayed in floating-point, integer, or binary formats. A search option lets you quickly find values in the data.



- **Reporting.** RSTrend software offers three types of reporting: project, numeric, and graphical. Project reporting contains all information necessary for documenting the project, including all log-point information, trend setup, and program settings.

Data reporting is divided into numerical and graphical types. A numerical report consists of a table of data values based on a selection of log points and required time range. Graphical reporting contains a print-out of the displayed trend graph, including colors and a variety of line styles and polymarkers. Black and white or color reports may be printed on any Windows, v3.1 or later, supported printer.

Additional Features

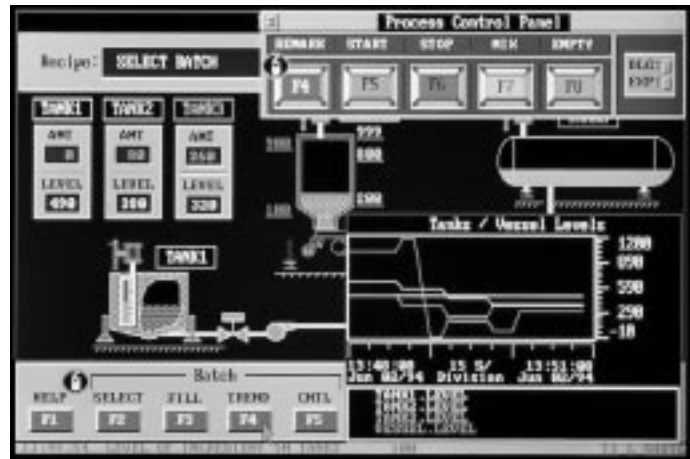
- Batch logging with batch ID
- Flexible file naming and file cutting options
- Log to primary and/or backup disks
- Formula support to scale PLC values into engineering units
- Value bar displays exact numeric values on graph
- Security through user Login/Logout
- Log on change with an adjustable "Deadband"

Typical Applications

- Process monitoring
- Historical trending
- Batch logging
- Maintenance
- Diagnostics
- Reporting

System Requirements

- IBM compatible 486 33-MHz computer
- MS-DOS v5.0 operating system
- Microsoft Windows v3.1 operating system
- 8M-byte RAM
- 40M-byte hard disk space
- 16-color VGA graphics adapter



ControlView software is the MMI/Supervisory software you need to monitor and control real-time data in the MS-DOS environment. The ControlView tools help you animate your process and configure your databases, alarms, trends, event detectors, data logs, security, recipes, and derived tags. With ControlView for DOS options, you can customize your applications to meet your needs. ControlView software lets you develop either in the Microsoft Windows or MS-DOS environment. Both operating systems use the same multi-tasking Runtime (Chronos) system for DOS.

Features

- **Graphics/Animation Links.** Design and animate your process through the MouseGRAFIX editor. Combine animation links to create complex processes. In addition, ControlView software gives you the tools for linking displays and creating an overall application structure that's easy for operators to use.
- **Trends.** Trend displays can plot realtime data or can retrieve data from historical data logger files for analysis. Plot as many as 16 pens at one time. Trends can show changes in tag values over time or relationships between tag values. Log data periodically based on event or on demand.
- **Alarms.** Alarms are flexible and easy to use. Alarms are set up based on thresholds and can be assigned different levels of severity. This lets you assign the action based on the severity. For example, a low severity might print a message, while a high severity alarm might ring a bell.
- **Event Detector.** Use ControlView Event Detector to trigger actions based on an event. For example, initiate a data logger model snapshot, start another application, display a help window, set a tag in the database.
- **Runtime.** For the MS-DOS power users, ControlView software is the only MMI/Supervisory Control software that has true pre-emptive multi-tasking within the MS-DOS environment. This allows you to achieve maximum data integrity, while simultaneously monitoring your real-time data with graphics, alarms, and trend charts.

Additional Features

- Use DDE to communicate between ControlView software and other Windows-based applications over a network
- Use "C" Toolkit to develop custom applications to work with ControlView software
- Design high-level reports using database information, data logger files, and activity log files
- Supports Allen-Bradley Modicon, Siemens, Texas Instruments, and GE drivers

See page 7-68 for a typical configuration drawing.

Ordering Information

Catalog Number	Product Characteristics
9302-CV	ControlView for DOS System
9302-RT	ControlView for DOS Runtime
9302-CV3	ControlView for DOS 300 System
9302-RT3	ControlView for DOS Runtime 300
9302-RT15	ControlView for DOS Runtime 1500
9302-BLD	ControlView for DOS Builder
9302-BLDRT	ControlView for DOS Builder and Runtime
9302-BLDRT3	ControlView for DOS Builder and Runtime 300

System Requirements

MS-DOS operating system. [ControlView for DOS Builder (cat. no. 9302-BLD) runs on Windows v3.1 or Windows 95 operating system.]

Software and Hardware Recommendations

For ControlView hardware and software platform recommendations, see *ControlView Recommended Hardware and Software Platforms*, publication 6190-2.5.

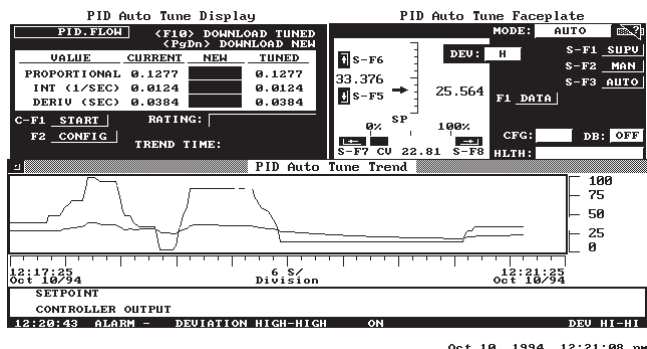




Supervisory Control and MMI Software

Process Configuration and Operation (PCO) Software

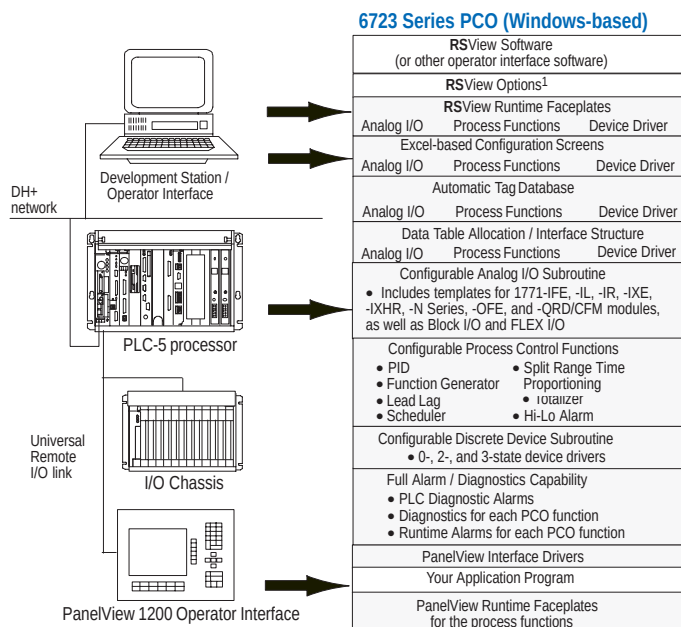
(Cat. Nos. 6723-PCO, -PCS, -PFP)



PCO Software (cat. nos. 6723-PCO, -PCS, -PFP) lets you develop your process more quickly and easily using familiar tools. By simplifying the integration of analog I/O modules, PLC processors, discrete devices, and operator interface workstations, PCO lets you make incremental, cost-effective process improvements as you develop your PLC processor-based control system. The software was developed as a Windows application and is compatible with v3.11, Windows 95, and Windows NT v3.51 or greater.

You'll start working with PCO by using a Windows-based Excel application to identify and configure your process functions. You can then add the PCO functions to your existing PLC processor programs using Rockwell Software PLC-5 A.I. Series Programming Software or RSLogix 5 Software. PCO's pre-developed Excel spreadsheets have interfaces in the PLC processor that enable Excel to communicate directly to the PLC processor over the Data Highway Plus, Ethernet network, serial port or ControlNet network.

Typical Configuration

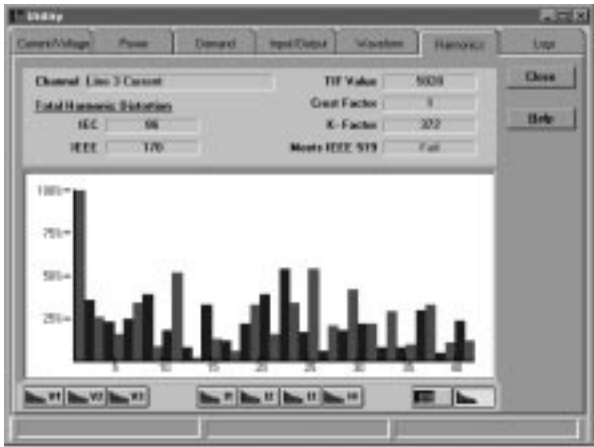


PCO process functions work with:

- A-B 1771 analog modules, Block I/O, FLEX I/O
- Rockwell Software RSView Software and other PSP operator interface software
- PLC-5 Family of processors
- PLC-5 programming tools:
PLC-5 A.I., WINtelligent LOGIC 5 software
- ControlNet, Remote I/O, Data Highway Plus networks

The shaded portions of this figure identify what you receive with PCO Software.

¹ See page 7-62 for a list of RSView Options.



The **RSPower™** power device and monitoring tool is a Windows-based software program that accurately represents power systems in your facility by configuring and displaying data from Allen-Bradley Bulletin 1400 Powermonitors.

With **RSPower** software, you can configure power devices, create custom graphical displays, and begin monitoring power systems within minutes of installing the software. Like many other Rockwell Software products, **RSPower** software runs on Microsoft Windows v3.x, Windows for Workgroups, and Windows 95 operating systems.

Intuitive configuration procedures, a well-stocked graphical toolbox, and easy navigation make **RSPower** software a valuable tool for creating data monitoring systems in your facility.

RSPower software includes two separate programs as described in the table below.

RSPower Program	Type of Software	Function
RSPowerCFG	Configuration Software	Configures power devices and provides tools for creating graphical displays to monitor power
RSPowerRUN	Runtime Software	Displays real-time power system data, trends, and alarms in custom-designed graphical displays. Records historical trend and alarm data in standard database files. You can open these files in any Windows application that accepts .DBF files.

Features

- *Quickly configure power devices.* Download or upload configuration settings between physical power monitors and the **RSPower** software.
- *Create custom graphical displays.* Use a toolbox of graphical elements to create drawings that include objects such as three-phase wiring runs, transformers, breakers, and motors.
- *Provide quick access to power system data.* Configure objects such as analog meters, digital meters, and bar graphs that report values back to operators during run time.
- *Set up trends and alarms* that report values back to operators during run time and record historical data in standard database .DBF file format.
- *Display all power system parameters* from all configured power devices in an easy-to-read spreadsheet format.
- *Proven Universal Remote I/O link* transfers data quickly and efficiently from power monitor devices to **RSPower** software. Use either a PLC-5 or an SLC 5/03 or SLC 5/04 processor as the gateway to the Universal Remote I/O link. Because power monitor data passes through the processors without even entering its memory space, you don't have to program the processors in order to run **RSPower** software.

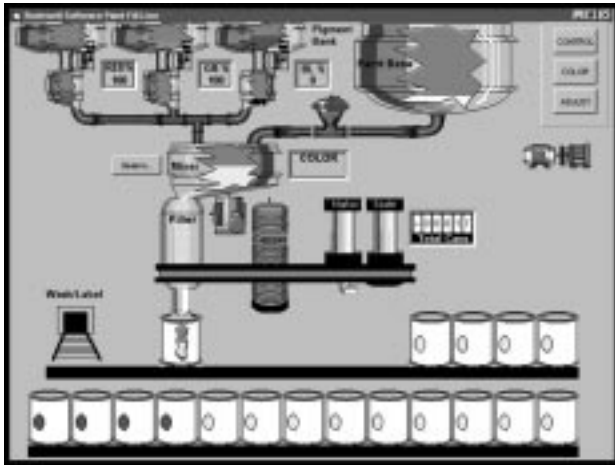
System Requirements

- 486DX2 66 MHz personal computer with a minimum of 16M bytes memory
- Windows 3.x, Windows for Workgroups, or Windows 95 operating system
- Enhanced PLC-5 processor with at least 1 Universal Remote I/O scanner port or a SLC 5/03, or SLC 5/04 processor [\[if you're using a SLC processor, you also need a SLC 500 Remote I/O Scanner \(cat. no. 1747-SN/B\), page 3-7\]](#)
- DH+, DH-485, Ethernet, or channel 0 for connecting the personal computer to the network

Ordering Information

Catalog Number	Product
9307-RSPDEV	RSPowerCFG and RUN
9307-RSPRTD	RSPowerRUN





RSTools™ are a collection of ActiveX Controls that let you use Rockwell Software AdvanceDDE format to represent data graphically for reliable, high-volume, high-speed communication. These tools help you develop applications for discrete manufacturing, process control, SCADA, and other industrial automation environments.

All **RSTools** components can be accessed by Microsoft Visual Basic, Microsoft Access, or any Microsoft compatible ActiveX control container. The tools consist of seven ActiveX controls (as described in the table below) and a flexible DDE (Dynamic Data Exchange) **RSJunctionBox™** communication module. The **RSJunctionBox** module lets all Rockwell Software controls communicate with DDE servers supporting AdvanceDDE and Excel Table formats.

ActiveX Control	Function
RSData	The RSData OCX, a 32-bit Visual Basic, (successor to RSData VBX, a 16-bit Visual Basic, page 7-72) provides numerical display of data and automatic database logging of values on value change
RSVessel	A powerful free-form dynamic fill shape control that allows percent fill based on the current value. You can create images representing storage tanks, ovens, or vats and actively show their current status
RSWheel	A panel thumbwheel emulator (mechanical, electronic, random number generator, etc.) to help you present your data in a familiar classic format (binary, octal, decimal, or hexadecimal) while still using the power and flexibility (over 100 custom and standard properties) that's built into every one of the Rockwell Software ActiveX controls
RSGauge	A multi-functional highly-configurable graphical gauge (used for speedometers, thermometers, pressures, etc.) lets you create dynamic round, semi-circular, or arc gauges all tied directly to live DDE data
RSButton	Quickly create momentary, LEDs, check box, toggle, radio or rocker buttons or switches to control and illustrate the process. RSButton has graphic images for on/off states
RSSlider	Use RSSlider to provide custom data entry. RSSlider has Min/Max value restriction, dual-scale display, an assortment of scroll bars and knob styles, and horizontal and vertical slider bars
RSCompare	A multi-state evaluation control that supports <i>linear</i> (new value is compared to the last value read) or <i>absolute</i> (compares current state to a check value) compare methods.

All of the controls can be bound to the Visual Basic Data control to link to most any database (Microsoft Access, dBASE™, FoxPro, SQL, Server, or Oracle). **RSTools** and Visual Basic help make the rapid creation of an inexpensive, seamless link from the plant floor to the entire enterprise possible.

Features

- Configure controls with graphical, point-and-click setup
- Connect to a variety of DDE sources through AdvanceDDE, XL_TABLE or CF_TEXT protocols
- Display any error that occurs in the data stream automatically with built-in error notification and handling
- Store configurations for easy re-use with **RSTools Template Manager**
- Use the WYSIWYG *Preview Mode* to preview results (before applying them) while modifying properties or applying templates
- Use **RSTools** ActiveX Controls with any Dynamic Data Exchange (DDE) server
- Build a quick-pick of DDE links with the *Symbol Manager*
- Display DDE link information at run-time using *Link-Tips*
- Use read/write math expressions capabilities to scale incoming or outgoing data without writing code
- Use **RSTools** ActiveX Controls as a container for pictures, text, and other ActiveX controls
- Extend Visual Basic events and provide additional custom events including advanced communication, error notification, and troubleshooting

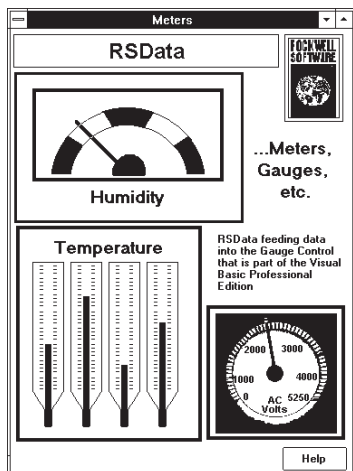
System Requirements

- Microsoft Visual Basic for Windows v4.0 or other development environments capable of using ActiveX Controls
- **RSJunctionBox** module communicates with any DDE server capable of using one of the following formats:
 - Rockwell Software AdvanceDDE
 - Microsoft Excel Table (XL_Table) or Text (CF_Text)
- IBM-compatible 486 processor or greater with 10M bytes of free hard disk space and at least 8M bytes of RAM. Rockwell Software recommends 16M bytes of RAM and a Super VGA (800 × 600) or greater display
- Windows 95 or Windows NT v3.51 operating system

Ordering Information

Catalog Number	Product
9361-TOOLS ¹	Includes RSData , RSGauge , RSVessel , RSCompare , RSWheel , RSButton , RSSlider , RSJunctionBox
9361-DATAOCX ¹	RSData and RSJunctionBox module
9361-JBOX	RSJunctionBox module

¹ Includes Microsoft Visual Basic v4.0 standard edition (in the U.S./Canada).



RSData™ Software, a Visual Basic® custom control software, lets you use the Rockwell Software AdvanceDDE™ format for high-volume, high-speed communication. This control software replaces the standard Visual Basic DDE-aware client controls (Text Box and Label).

RSData software can communicate through many formats and chooses the best common format when establishing links to server applications. **RSData** software first attempts to link through the AdvanceDDE format, followed by the Microsoft Excel Table format, and, finally, through the standard text format. Without writing any code, you can link **RSData** software to the Visual Basic data and log changes in any linked third-party database, such as Access, Paradox, DBase, Microsoft SQL Server, Oracle and Foxpro® databases.

Features

- Brings robust industrial communication into the quick and easy Visual Basic development environment
- Provides custom solutions for difficult tasks with the same communication efficiency as sophisticated industrial programs
- Links to databases, such as Access, Paradox, DBase, Microsoft SQL Server, Oracle, and FoxPro databases, and performs automatic logs to the database upon change of the data value
- Notifies you of important communication events, such as ItemChange, PokeCompleted, RequestCompleted, and LinkError
- Provides high-volume, high-speed data transfer using standard Windows DDE
- Reduces DDE transaction time geometrically with the amount of data
- Has easy “search and replace” conversion from standard DDE-aware controls
- Provides link-tip display of link information

- Accepts data from different servers and uses the best common format (AdvanceDDE, Excel Table, Text). Each server negotiates its own communication
- Supports array data types to further improve data transfer rates
- Offers enhanced reading and writing methods, such as requesting and poking, when using control arrays
- Has extended data transmission error detection

System Requirements

- Microsoft Visual Basic for Windows, v3.0
- Support is provided with a reduced feature set for: Microsoft Visual C++™, Borland® Delphi, Powersoft's PowerBuilder, previous versions of Visual Basic, and other development environments providing VBX Level 1 compatibility
- Any DDE Server capable of using one of the following formats:
 - Rockwell Software AdvanceDDE
 - Microsoft Excel Table (XL_Table)
 - Text (CF_Text)

Compatibility

- Visual Basic v4.0 (16-bit)
- Applications using Microsoft Windows v3.x
- Windows 95 operating system
- Windows NT operating system

Custom Properties

AllowItemChangeEvent	AlwaysDisplayData	DataUpdate	DataValue(item)
DoPoke	DoRequest	LinkErrorDisplay	LinkErrorNumber
LinkErrorString	LinkItem	LinkMode	LinkServer
LinkTip	LinkTipBackColor	LinkTipForeColor	LinkTopic
NumberOfDataItems	PokeLength	PokeStartIndex	PokeResult
PokeType	RequestLength	RequestMode	RequestResult
RequestStartIndex	UseInPoke	UseInRequest	

Custom Events

ItemChanged	PokeCompleted	RequestCompleted
LinkError	LinkNotify	





The **RSWorkbench™** development environment attaches to the Visual Basic v4.0 add-in menu to enhance both the Visual Basic and the **RSTools** family of ActiveX controls.

Once attached, the **RSWorkbench** product provides easy access to re-usable Forms, Code, Images, Templates, Apprentices for Database creation and Action creation. "Outlets" consisting of PLC database symbols, addresses, and descriptions can be dragged and dropped directly onto the **RSTools** ActiveX Controls ([page 7-71](#)) to quickly link to process data.

The **RSWorkbench** product is part of the **RSWorkshop**, which consists of **RSTools** and **RSWorkbench**.

RSWorkshop	
RSWorkbench	RSTools
Electrician, Outlets, Pegboard, Drawers, Image Foundry, Control Forge, Database Apprentice, Action Apprentice, Forms Library, Draftsman, Code Library, and Project Manager	RS Gauge, RSVessel, RSButton, RSData, RSSlider, RSCompare, RSWheel

Features

- *Outlets* provide a set of Tags for process linking and animation. This list of Tags is read directly from a user database, Text file (CSV), or PLC database. Importing and conversions are not necessary.
- *Electrician* lets you assign a "Name" that is associated with a Server, Topic, and Database. Once defined, the electrician "Wires up an Outlet."
- *Pegboard*, a virtual clipboard, provides over 50 pegs to save clipboard data. One click captures the contents of the clipboard. Another click restores the clipboard data. You can save Pegboards to disk.
- *Drawers* organize project data. Libraries of Pegboards, Databases, Images, Templates, Forms, Code, etc. are accessible through these animated drawers.
- *Image Foundry*, a powerful object-oriented drawing package, creates simple to complex drawings and saves them in the standard windows MetaFile format (.WMF). Autocad DXF files can be imported and modified to create new drawings or symbol libraries.

Allen-Bradley

- *Control Forge* is a WYSIWYG (what-you-see-is-what-you-get) tool to simplify the creation of property Templates for **RSTools** (ActiveXs)
- *Database Apprentice* creates a Microsoft ACCESS database from scratch, creates a form from the database fields and binds the controls to the database all in just four clicks.
- *Action Apprentice* takes standard Actions and prompts the user for action options. Once complete, this apprentice generates code and puts it into the clipboard. Syntax is automatic, necessary Form, Class, and Basic modules are automatically added to the project as needed.
- *Forms Library* provides a visual preview of Forms from a library of Forms and helps organize sets of Forms. Select a Form and press the Apply button to automatically add the Form to the open project.
- *Draftsman* has tools for aligning and sizing controls on a Form as well as design rules for consistency to promote a common look and feel to Forms.
- *Code Library* quickly accesses sample Code snippets that can be copied to the clipboard. Code libraries promote code re-use and dramatically reduce code development time.
- *Project Manager* lets you select multiple modules and using the right mouse menu duplicate or copy the modules to a user-defined library.

System Requirements

- Microsoft Visual Basic for Windows v4.0 or other development environments capable of using ActiveX Controls
- **RSJunctionBox** module communicates with any DDE server capable of using one of the following formats:
 - Rockwell Software AdvanceDDE
 - Microsoft Excel Table (XL_Table) or Text (CF_Text)
- IBM-compatible 486 processor or greater with 10M bytes of free hard disk space and at least 8M bytes of RAM. Rockwell Software recommends 16M bytes of RAM and a Super VGA (800 × 600) or greater display
- Windows 95 or Windows NT v3.51 operating system



Product Compliance Information

Operator Interface Products

UL/CSA and CE

The following products (in addition to the ones we've already identified in this section) have UL/CSA approval and CE certification.

  Class I Div 2 Hazardous	 		 		
• 2705-EM21J1 • 2705-EM11J1 • 2705-EM2x • 2705-EP2x • 2705-EP21SE1 • 2705-EP11S1 • 2705-T3DN1A42A • 2705-T3DN1B42A • 2706-A41J • 2706-A42J • 2706-D11J2 • 2706-D21J2 • 2706-DL5 • 2706-DL10 • 2706-M1D • 2706-M1D1 • 2706-M1F1 • 2706-M1N1 • 2707-DNC • 2707-L8P1 • 2707-L8P1R • 2707-L8P2 • 2707-L8P2R • 2707-L40P1 • 2707-L40P1R • 2707-L40P2 • 2707-L40P2R • 2707-M232P3 • 2707-M485P3 • 2707-MVH232 • 2707-MVH232D • 2707-MVP232 • 2707-MVP232D • 2707-V40P1 • 2707-V40P1R • 2707-V40P2¹ • 2707-V40P2N¹ • 2707-V40P2N • 2707-V40P2NR • 2707-V40P2R • 2711-K5A3 • 2711-K5A9 • 2711-K9A3 • 2711-K9A9 • 2711-K9C1 • 2711-K9C3 • 2711-K9C9 • 2711-T9A3 • 2711-T9A9 • 2711-T9C1 • 2711-T9C3 • 2711-T9C9	• 2705-K11C1 • 2705-K11C2 • 2705-P11J1 • 2705-P11J1L • 2705-P11J2 • 2705-P11J2L • 2705-P21C1 • 2705-P21C2 • 2705-P21J1 • 2705-P21J1L • 2705-P21J2 • 2705-P21J2L • 2705-P31J1 • 2705-P31J1L • 2705-P31J2 • 2705-P31J2L • 2705-T3ND • 2706-M1F • 2706-M1N • 2711-B5A1 • 2711-B5A2 • 2711-B5A5 • 2711-B5A9 • 2711-K5A1 • 2711-K5A2 • 2711-K5A5 • 2711-K9A1 • 2711-K9A2 • 2711-K9A5 • 2711-KA1 • 2711-KC1 • 2711-T9A1 • 2711-T9A2 • 2711-T9A5 • 2711-TA1 • 2711-TA4 • 2711-TC1 • 2711-TC4 • 2711E-K12C6 • 2711E-K12C6L2 • 2711E-K14C6 • 2711E-K14C7 • 2711E-T12C4 • 2711E-T12C6 • 2711E-T14C6 • 2711E-T14C7	• 2706-B13J8 • 2706-B13J16 • 2706-B13J31 • 2706-B23J8 • 2706-B23J16 • 2706-B23J31 • 2706-B43J16 • 2706-B43J31 • 2706-DL20⁴ • 2706-DL40⁴ • 2706-DL50⁴ • 2706-E23J16 • 2706-E23J16B1 • 2706-E23J32 • 2706-E23J32B1 • 2706-E43J32 • 2706-E43J32B1 • 2706-E43J64 • 2706-E43J64B1 • 2706-E43J128 • 2706-E43J128B1 • 2706-F11J • 2706-F11JC • 2706-F21J • 2706-F21JC • 2707-MVH232 • 2707-MVP232 • 6151 Series² • 6152 Series² • 6153 Series² • 6154 Series² • 6155 Series • 6156 Series³ • 6157 Series • 6158 Series² • 6159 Series	• 2711E-K14C6 • 2711E-K14C7 • 2711E-T14C6 • 2711E-T14C7 • 6151 Series² • 6152 Series² • 6153 Series² • 6154 Series² • 6155 Series • 6156 Series³ • 6157 Series • 6158 Series² • 6159 Series • 6180 Series³ • 6189-DPMOUSE • 6189-DPMOUSEP	• 1747-CP3 • 2705-EP11S1 • 2705-EP21S1 • 2705-EP21SE1 • 2705-T3DN1A42A • 2705-T3DN1B42A • 2706-DL5 • 2706-DL10 • 2706-DL20 • 2706-DL40 • 2706-DL50 • 2706-E23J16 • 2706-E23J16B1 • 2706-E23J32 • 2706-E23J32B1 • 2706-E43J128B1 • 2706-E43J32 • 2706-E43J32B1 • 2706-E43J64 • 2706-E43J64B1 • 2706-F11J • 2706-F11JC • 2706-F21J • 2706-F21JC • 2706-M1F1 • 2706-M1N1 • 2707-L8P1 • 2707-L8P2 • 2707-L40P1 • 2707-L40P2	• 2707-V40P1 • 2707-V40P2 • 2707-V40P2N • 2711-B5A1 • 2711-B5A2 • 2711-B5A5 • 2711-K5A1 • 2711-K5A2 • 2711-K5A5 • 2711-K9A1 • 2711-K9A2 • 2711-K9A5 • 2711-T9A1 • 2711-T9A2 • 2711-T9A5 • 2711-T14C6 • 2711E-K14C6 • 2711E-T14C6 • 6151 Series • 6152 Series • 6153 Series • 6154 Series • 6155 Series • 6156 Series • 6157 Series • 6158 Series • 6159 Series • 6180 Series

¹ Rated Class I Division 1.

² This product is UL Listed to Canadian safety standards, and it also bears the UL Listing Mark.

³ This product is UL Listed to Canadian safety standards.

⁴ This product is UL Listed for Type 12 and 13. Designed but not Listed for Type 4.

(Continued)

Certification for Off-shore Applications



The following products have certification for off-shore applications.

- 1785-KE
- 2705-EM11J1
- 2705-EM21J1
- 2705-EP11S1
- 2705-EP21S1
- 2705-EP21SE1
- 2706-E23J16
- 2706-E23J16B1
- 2706-E23J32
- 2706-E23J32B1
- 2706-E43J32
- 2706-E43J32B1
- 2706-E43J64
- 2706-E43J64B1
- 2706-E43J128
- 2706-E43J128B1
- 2711-B5A①②
- 2711-K5A①②
- 2711-K9A①②
- 2711-K9C①②
- 2711-T9A①②
- 2711-T9C①②
- 6151 Series

① Catalog numbers vary depending on the communication options:

1 = Remote I/O communication and RS-232 printer port,

2 = DH-485 comm. and no printer port, 3 = DH-485 comm. and RS-232 printer port, 5 = RS-232 comm. with DH-485 protocol and no printer port, 8 = DH+ comm. and RS-232 printer port, 9 (RS-232 comm. with DH-485 protocol and RS-232 printer port), 10 (DeviceNet comm. and RS-232 printer port), 11 (ControlNet comm. and RS-232 printer port), 14 (Modbus comm. and RS-232 printer port).② The suffix L1 is for

18-30V dc (no suffix is for 120/240V ac).

