Visualization Solutions

Graphic Terminals

Tethered Operator Terminals

Industrial Computers, Monitors, and Thin Clients

Related Software

Allen-Bradley

by ROCKWELL AUTOMATION

Selection Guide

What's Inside

What's New

The information in this updated selection guide has been restructured to offer greater detail about the visualization solutions we offer.

To help you optimize productivity, Rockwell Automation is expanding its product line by offering the following new products:

- The OptixPanel™ Compact and Standard graphic terminals run FactoryTalk® Optix™ and FactoryTalk® Remote Access™ software. The FactoryTalk Optix Portfolio gives machine builders significant freedom to customize their solution based on factors like third-party connectivity and look and feel.
- Our ASEM™ 6300 industrial PC offerings have expanded to include the 6300B-JB1 and 6300B-EW1 non-display computers and the 6300P-EW1 integrated display computer.

Add Visualization to Your Control System

Visualization and human-machine interface (HMI) solutions help you address your productivity, innovation, and globalization needs. Our portfolio, which includes electronic operator interface terminals, industrial PCs, station-level or distributed client/server HMI, and information software, provides operator interface options that can satisfy any set of requirements. Flexible programming tools and advanced software applications offer remote access and data analysis, making application development and operations more efficient.

Visualization products from Rockwell Automation comprise a suite of scalable HMI software and operator interface hardware that provide plant floor machine operators, supervisors, engineers, and business managers a window to critical data and production and process information. This information can be obtained from the plant floor and displayed on a local HMI, or viewed via local or remote web browser.

- Graphic terminals offer rugged electronic interface solutions in various sizes, operator input methods, and configurations. These robust devices are fully packaged (hardware, software, and communications) and tested for human-machine interface operation.
- Industrial computers, monitors, and thin clients provide a rugged industrial computing platform for critical infrastructure and analytical solutions.

This selection guide is meant to help you make initial decisions for the visualization products that are best suited for your system requirements. For detailed technical specifications, certifications, and environmental specifications, see the documentation links in each product section.

For assistance and validation in final product selections, refer to the Product Selection and Configuration Tools at rok.auto/systemtools.

Notes:

Our graphic terminals are fully packaged (hardware, software, and communications) and tested for human-machine interface operation. They provide visualization for many control systems, but are designed for improved efficiency and integration with Logix 5000® control systems. Use this section to help you identify which graphic terminals best meet your application and development needs.

Which Graphic Terminal Solution is Right for Your Application and Development Needs?

PanelView™ 800 Graphic Terminals	PanelView 5000 Graphic Terminals	PanelView Plus 7 Graphic Terminals	MobileView™ Tethered Operator Terminals	OptixPanel Operator Terminals
Connected Components Workbench™ Software	**Studio 5000 Logix Designer® Software**	**FactoryTalk™ View ME Software**	**FactoryTalk View ME Software**	**FactoryTalk® Optix Studio™**
Micro Level HMI • Optimized for micro and small automation systems • Visualization solution for standalone/smart machines • Simplified machine development via multi-communication protocols	**Machine Level HMI for Logix** • Premier integration with Logix controllers with I/O high-speed jog functionality • View Designer design-time software is included with Studio 5000® • Automatic Diagnostics and Logix alarming	**Machine Level HMI** • Logix and third-party controllers via Kepware® • Windows-based operator interface terminal with closed operating system	**Mobile Machine Level HMI** • Logix and third-party controllers via Kepware • Tethered mobile HMI station	**Scalable HMI** • Cloud-enabled through FactoryTalk® Hub™ • Dedicated third-party and MQTT connectivity • Full OPC UA Companion Specification support • Web clients, remote management/access

FactoryTalk Optix Portfolio

The FactoryTalk Optix portfolio accelerates value delivery with modern technologies, innovative designs, and scalable deployment options.

Selection Overview

If Your Application Needs	Select
• PC-like performance in a sealed HMI appliance running FactoryTalk Optix and FactoryTalk Remote Access • Full support for OPC UA and scripting in C# for greater extensibility	OptixPanel terminals

OptixPanel Graphic Terminals

OptixPanel graphic terminals (Bulletins 2800C, 2800S) give you a PC-like user experience in a sealed HMI appliance. There is no operating system to secure and smaller applications can benefit from the excellent price-performance ratio. They also feature a wide range of bezel options, aspect ratios, and touch screen gesture technology for easier integration on your factory floor.

OptixPanel Graphic Terminals Features

Feature		2800C OptixPanel Compact 	2800S OptixPanel Standard 
Processor		ARM i.MX 8M Mini	ARM i.MX 8M Plus
System Memory - RAM		1 GB	4 GB
Mass storage		2.5 GB	12 GB
Connectivity		• 1x USB 2.0 port • 1x Gb Ethernet port • 1x DB9 serial port (RS-232/422/485), non-isolated	• 2x USB 3.0 ports • 2x Gb Ethernet ports – Ability to operate independently on two networks – Ability to enable FactoryTalk Remote Access connectivity to devices on the local subnetwork • 1x DB9 serial port (RS-232/422/485), isolated
FactoryTalk Optix Integration		• FactoryTalk Optix Runtime Small license (8 feature tokens), upgradable to Medium (11 feature tokens)	• FactoryTalk Optix Runtime Medium license (11 feature tokens), upgradable to Large (15 feature tokens)
FactoryTalk Remote Access Integration		• FactoryTalk Remote Access Runtime Basic license, upgradable to Pro license	• FactoryTalk Remote Access Runtime Pro license
Display sizes	4:3	–	10.4 in., 12.1 in., and 15 in.
	Wide	4.3 in. and 7 in.	7 in., 10.1 in., 12.1 in., 15.6 in., 18.5 in., and 21.5 in.

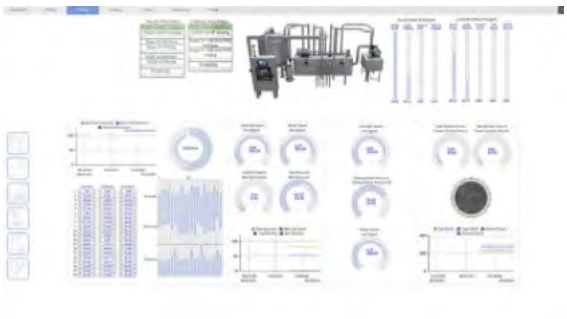
Additional features include the following:

- Unlimited number of resources, such as displays, controllers, tags, or alarms, which are defined on the project.
- Stainless-steel widescreen and full IP69K version available only for 2800S OptixPanel Standard, in widths from 10.1" to 21.5"
- HTML5 web client support that provides a responsive interface on a mobile device or web browser
- PDF viewer to provide operators with manuals, drawings, or machine specifications, in the FactoryTalk Optix application
- VNC-like feature available through a FactoryTalk Remote Access Local Connection (firmware revision 4.0.2.116 for Bulletin 2800C and 4.0.2.123 for Bulletin 2800S)
- Programmable via FactoryTalk Optix Studio: the new collaborative, cloud-based software platform that offers flexibility, scalability, extensibility, and openness, thanks to the C# scripts that enable the addition of custom methods and functionality
- Full OPC UA Companion Specifications support for data acquisition from the field, industrial interoperability for M2M communications, interfacing to MES systems, ERP, and Cloud infrastructures

To determine which terminal best meets your application requirements, use the Device Sizing tool that is found on the FactoryTalk Optix landing page on FactoryTalk Hub.

For accessories, technical specifications, certifications, and environmental specifications on the OptixPanel terminals, see the OptixPanel Operator Panels Specifications Technical Data, publication 2800-TD001.

FactoryTalk Optix Software Components



FactoryTalk Optix software is a cloud-enabled platform that delivers flexibility, scalability, and interoperability and enables the design and deployment of applications that not only provide a modern HMI experience, but also augment your capabilities in the Industrial Internet of Things (IIoT), edge computing, and data management. This new platform provides design features such as multi-user collaboration, web-based design and test, and integrated version control, and operator interface options such as web browser client access, responsive graphics that adjust no matter the screen size, and multi-language and style sheet support.

With FactoryTalk Optix you can:

- Build versatile HMI solutions that meet today's requirements and adapt to the changing needs and technologies of tomorrow with a powerful, flexible platform
- Develop applications without being tied to specific runtime hardware. The flexibility of the FactoryTalk Optix portfolio supports runtime applications on OptixPanel terminals, industrial PCs such as ASEM 6300, or Logix Embedded Edge Compute. Linux Ubuntu 22.04 platforms are also supported
- Enable multi-user design collaboration to keep project content always up to date, managed by integrated version control in local or cloud-hosted code repositories
- Speed design with built-in object libraries and customizable library management
- Choose the design environment that works for you. Design and test with design tools that are installed on a local computer, or with web browser-based application design
- Provide users with intuitive graphical interfaces with responsive graphics, reporting and dashboarding
- Extend applications with fundamental IIoT connectivity, comprehensive OPC UA support, and an open interface with C# scripting
- Support control systems from multiple vendors with built-in third-party drivers
- Optimize operations with data management and processing at the edge, with the flexibility to store data locally or transfer it to on-premise and cloud applications

FactoryTalk Optix Studio

Integrated development environment with a framework of functional modules for designing and compiling HMI or Industrial Internet of Things (IIoT) applications.

- Integrated Design environment for creating FactoryTalk Optix applications
- Design and test your HMI projects using a desktop editor or, with a Pro license, a full-featured design environment via a web browser
- Download FactoryTalk Optix Studio Standard for free or gain the connectivity and collaboration features that are provided with a FactoryTalk Optix Studio Pro license

FactoryTalk Optix Runtime

- Included with OptixPanel and Embedded Edge Compute
- Necessary additional purchase if using an Industrial PC to run an application

FactoryTalk Remote Access

FactoryTalk Remote Access enables secure connections to equipment, allowing teams to respond to needs faster and rapidly resolve production issues from anywhere. FactoryTalk Remote Access quickly connects domain experts to critical issues, no matter the physical location of either, accelerating remote support and reducing the costs associated with travel and asset downtime.

- FactoryTalk Remote Access Runtime Basic is included with OptixPanel Compact and ASEM 6300 industrial PCs
- FactoryTalk Remote Access Runtime Pro is included with OptixPanel Standard, Embedded Edge Compute, and Stratix® 4300
- Use on a local network with FactoryTalk Tools, without additional purchase
- Cloud-based access requires the purchase of a concurrent user entitlement on FactoryTalk Hub
- Shadow, transfer files, and perform OptixPanel maintenance over a local network

FactoryTalk View Portfolio

With FactoryTalk View products, you can get a clear, consistent operator interface, from the standalone machine level HMI to distributed visualization solutions, covering your entire enterprise. A single software package covers HMI challenges in process, batch, and discrete applications. Clear displays, a common programming language, and libraries of reusable content, such as device faceplates, help confirm that you get the best possible perspective of your machine performance.

Selection Overview

If Your Application Needs	Select	More Information
• Integration with Studio 5000 and FactoryTalk View • Connectivity to third-party devices and controllers	PanelView Plus 7 terminals	See page 8
• Self-enclosed panel, IP66 protection • Hardwired E-stop	ArmorView™ Plus 7 terminal	See page 8
• Mobile operator terminal within line of sight of the process • Integration with FactoryTalk View ME • On-terminal E-stop to support a safe production environment • Operator mobility to increase productivity • Software assignable function keys, 3-position switch, momentary push button, or keyswitch	MobileView Tethered Operator Terminals	See page 9

PanelView Plus 7 Graphic Terminals

PanelView Plus 7 Performance Terminals

PanelView Plus 7 Performance terminals (Bulletin 2711P) are operator interface terminals. They monitor and control devices that are attached to ControlLogix® and CompactLogix™ controllers on an EtherNet/IP™ network. Animated graphic and text displays provide operators a view into the operating state of a machine or process. Operators interact with the control system by using touch screen or keypad input.

Features include the following:

- FactoryTalk View Machine Edition software, which provides a familiar environment for creating HMI applications
- FactoryTalk ViewPoint web server, which enables remote web browsers to view and interact with user-generated displays
- Windows® 10 IoT LTSC Core operating system (Series B only. Series A terminals come with Windows CE)
- Connection to ControlLogix and CompactLogix controllers, or other third-party devices using KEPServer
- Ethernet communication that can support Device Level Ring (DLR), linear, or star network topologies
- Web browser (full-screen only)
- VNC Client and Server (Series A only)
- Available in 7 in., 9 in., 10 in., 12 in., 15 in., and 19 in. sizes
- Stainless-steel, hygienic, brandless, DC-power, and conformal coating options are available for the PanelView 5510 9 in. and 12 in. wide-screen, touch-only units. Stainless-steel versions of the 10-in and 15 in. wide-screen, touch-only units will be available soon
- Conformal coating and brandless options available for all sizes

ArmorView Plus 7 Terminal

The ArmorView Plus 7 terminal (Bulletin 2711P) provides NEMA4/IP66 ingress protection. You can mount this 12 in. terminal on an arm mount system, a wall, or a pedestal. An optional VESA kit can be purchased separately for operators who prefer to mount the terminal on a VESA-compatible bracket (purchased separately).

The ArmorView Plus 7 terminal is based on the Series B PanelView Plus 7 Performance terminal. The ArmorView Plus 7 terminal includes a lighted, twist-to-release E-stop with N.O., N.C., and self-monitoring contact blocks.

For accessories, technical specifications, certifications, and environmental specifications on the PanelView Plus 7 Performance and ArmorView Plus 7 terminals, refer to the PanelView Plus 7 Performance Terminals Technical Data, publication 2711P-TD009.

PanelView Plus 7 Standard Terminals

PanelView Plus 7 Standard terminals can be used to monitor and control devices that are attached to ControlLogix and CompactLogix controllers on an EtherNet/IP network, or other third-party devices using KEPServer. Animated graphic and text displays provide operators a view into the operating state of a machine or process. Operators interact with the control system by using touch screen input.

PanelView Plus 7 Standard terminals include these features:

- Terminals permit connection to 1 controller, 100 screens, and 500 alarms
- FactoryTalk View Machine Edition software provides a familiar environment for creating HMI applications
- Windows CE operating system with desktop access for configuration and third-party applications
- Ethernet communication that supports linear, star, and ring network topologies
- PDF viewer to access PDF files that are stored on the terminal
- Screen size options down to 4" diagonal
- Terminals are available with an Allen-Bradley label, or with no label

For accessories, technical specifications, certifications, and environmental specifications on the PanelView Plus 7 Standard terminals, refer to the PanelView Plus 7 Standard Terminals Technical Data, publication 2711P-TD008.

MobileView Tethered Operator Terminals

The MobileView terminals (Bulletin 2711T) feature a rugged design, multiple configurations, and include Windows Embedded Standard 7. They use FactoryTalk View Machine Edition software for creating HMI applications. The MobileView terminal features include a 3-position enable switch, touch screen, and function keys, and Emergency Stop push button. These features let operators access the safety system of the machine and the general interface to the control system.

The MobileView terminals are ideal for various applications, including:

- Operator panels for machines and plants
- Teach and programming panels for robots
- Test, maintenance, and start up

The MobileView terminals adapt to specific applications by using configurable operating and control elements. A cable and junction box are required for the operation of a MobileView terminal. 2711T MobileView Tethered Thin Client models are also available.

For accessories, technical specifications, certifications, and environmental specifications on the MobileView tethered operator terminals, refer to the MobileView Tethered Operator Terminals and Junction Boxes Technical Data, publication 2711T-TD001.

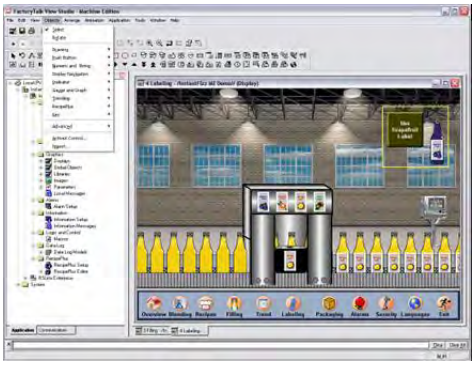
FactoryTalk View HMI Software

FactoryTalk View performance and visibility HMI software, including FactoryTalk View Machine Edition, FactoryTalk View Site Edition, FactoryTalk ViewPoint, and FactoryTalk View Studio are designed with a common look, feel, and navigation to help speed HMI development and training time.

Supporting the Rockwell Automation Integrated Architecture® system, FactoryTalk View software is part of the scalable and unified suite of monitoring and control solutions that are designed to span machine-level applications through supervisory level HMI applications across a network. This suite of HMI software products offers you a common development environment, application reuse, and architecture to increase productivity, reduce operation costs, and improve quality.

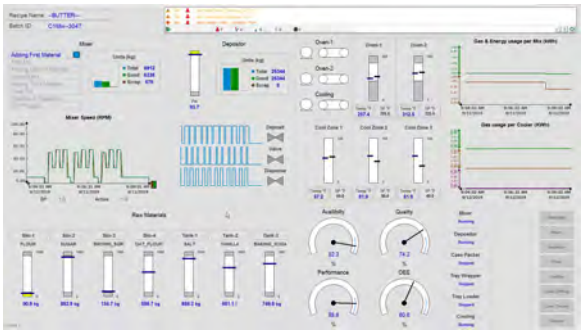
For product options, see FactoryTalk View Ordering Guide, FTALK-QR003

FactoryTalk View Machine Edition (ME)



FactoryTalk View Machine Edition (ME) software is a versatile HMI application that provides superior graphics, runtime user management, language switching, and faster commissioning time through a common development environment. FactoryTalk View ME software is automatically installed and activated on PanelView Plus terminals. FactoryTalk View ME software activation is required when running HMI applications on industrial computers. FactoryTalk View ME software supports both open and embedded operator interface solutions for monitoring and controlling individual machines or small processes.

FactoryTalk View Site Edition (SE)



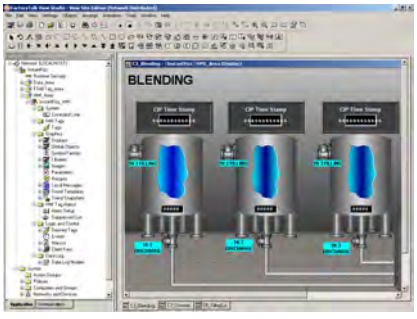
FactoryTalk View Site Edition (SE) software is supervisory-level HMI software for monitoring and controlling plant floor operations. FactoryTalk View SE scales from a standalone HMI system to a distributed, multi-server, multi-user visualization solution. FactoryTalk View SE software allows you to take advantage of mobility and virtualization in process, batch, and discrete applications, and deliver critical visibility when and where you need it.

FactoryTalk ViewPoint Software

An add-on to FactoryTalk View SE software and PanelView Plus 7 terminals, FactoryTalk ViewPoint software provides on-demand access to important information about your plant or process from a web browser. Plant managers, supervisors, OEMs, system integrators, and other key stakeholders can now access, monitor, and interact with plant floor operations from virtually any location. The web client configuration means no client software to install and maintain:

- Fully scalable, animated web applications viewable in the office, at home, or on the road
- Gives managers, OEMs, and system integrators the ability to view and control real-time plant floor operations via a web browser
- Provides access to real-time information via an HTML5 web browser
- Supports multiple browsers and client devices for increased flexibility
- Lets FactoryTalk View projects be web-enabled without requiring application changes

FactoryTalk View Studio Software



FactoryTalk View ME and FactoryTalk View SE software share a common design environment called FactoryTalk View Studio. FactoryTalk View Studio for Machine Edition creates applications for Factory Talk View ME and FactoryTalk View Studio Enterprise develops applications for Factory Talk View ME or SE. Both products offer the ability to edit and reuse projects, improving portability between embedded machine and supervisory HMI systems. Application developers can import entire machine-level applications into supervisory-level applications or drag individual components and drop them right into supervisory projects, saving development time and reducing engineering and training costs. Runtime files can be generated for a PanelView Plus terminal (Factory Talk View ME only) or industrial computer.

PanelView 5000 Portfolio

The integration of Studio 5000 View Designer® software and PanelView 5000 graphic terminals (Bulletins 2715P, 2713P) allows you to enter configurations, such as tags and alarms, once and use them for the entire automation design. It also helps you build modern applications with high-speed HMI buttons for jogging applications, scalable vector graphics, and a pre-configured system banner that provides diagnostic information.

Selection Overview

If Your Application Needs	Select
• Enhanced integration with Studio 5000 and high-speed HMI buttons for jogging applications • Preconfigured navigation menus, scalable graphics, and user-friendly workflows	PanelView 5000 terminals

PanelView 5000 Graphic Terminals

PanelView 5000 graphic terminals (Bulletins 2715P, 2713P) offer an intuitive, modern design and provide a high degree of integration between your HMI and Logix controller. The built-in configurable navigation menu maximizes the available display area, enabling more space for application content. This helps increase operation efficiency and may allow the use of a smaller terminal to address your application.

PanelView 5000 Graphic Terminal Features

Feature	PanelView 5310	PanelView 5510
CPU	X86 Single-Core	X86 Dual-Core
Displays	100 screens	500 screens
Display sizes	6 in., 7 in., 9 in., 10.4 in., and 12.1 in.	6.5 in., 7 in., 9 in., 10.4 in., 12.3 in., 15 in., and 19 in.
Controllers	1 controller(1)	4 controllers(1)
Alarms	4000 alarms	16,000 alarms (4000 per controller)(2)
Connectivity	• 1x USB 2.0 high-speed host port (type A) • 1x USB 2.0 high-speed device port (type B) • 10/100 single Ethernet port	• 2x USB 2.0 high-speed host port (type A) • 1x USB 2.0 high-speed device port (type B) • 2x 10/100 Base-T, Auto MDI/MDIX Ethernet ports that support Device Level Ring (DLR), linear, or star network topologies
Temperature, operating	0…50 °C (32…122 °F)	7…15 in. terminals: 0…55 °C (32…131 °F) 19 in. terminals: 0…50 °C (32…122 °F)
Navigation button	Software only	Hardware and Software

(1) ControlLogix 5570, 5580 and CompactLogix 5370, 5380 or 5480 controllers running firmware revision 27 or later over an EtherNet/IP network.
(2) The PanelView 5510 can support up to 4000 Logix tag-based alarms or up to 1000 Logix instruction-based alarms per controller. Use Logix Designer application version 32 or later for Logix tag-based alarms.

All PanelView 5000 terminals include the following:

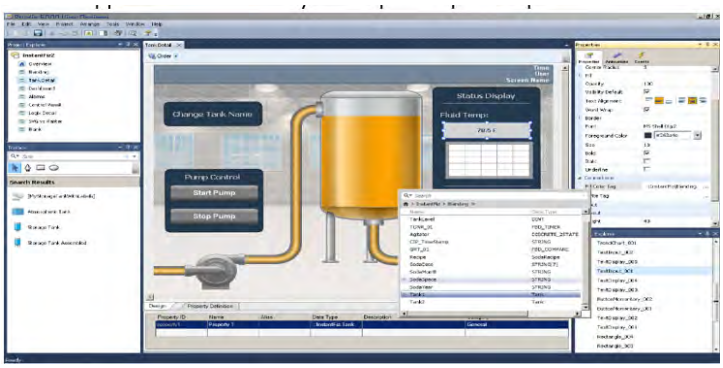
- Tightly integrated control and design environment for information sharing between the terminal and the Logix platforms
- Studio 5000 environment provides one point of access for Studio 5000 View Designer and Studio 5000 Logix Designer applications
- PDF viewer to view PDF files included as part of a View Designer project
- Displays with Automatic Diagnostics automatically show control system status when used with Logix controllers, version 33 and later
- Conformal coating and brandless options are available for all terminal sizes
- Virtual Network Computing (VNC) server
- Stainless-steel versions with IP69K ingress protection and conformal coating are available for PanelView 5510 9 in. and 12 in. wide-screen, touch-only units. Stainless-steel versions of the 10-in and 15 in. wide-screen, touch-only units will be available soon.
- HTML5-compatible web browser for displaying webpages, mp4 videos, and IP camera streams (PanelView 5510 terminals only with firmware revision 8, or later)

For accessories, technical specifications, certifications, and environmental specifications on the PanelView 5310 terminals, refer to the PanelView 5310 Specifications Technical Data, publication 2713P-TD001.

For accessories, technical specifications, certifications, and environmental specifications on the PanelView 5510 terminals, see the PanelView 5510 Terminals Specifications Technical Data, publication 2715P-TD001.

Studio 5000 View Designer

Studio 5000 View Designer software is the design environment for the PanelView 5000 family of operator terminals. The integration of the PanelView 5000 terminals with Studio 5000 View Designer software helps build modern applications more easily and improve operator performance.



The View Designer application provides an intuitive, modern design environment and enhances integration between the control system and operator interface to improve programming efficiency and runtime performance.

- Preconfigured banner, alarm summary, and diagnostic displays help reduce design time
- Simplify engineering with shared tags between HMI and controller
- Eliminate alarm programming and reduce network traffic with Logix-based alarms
- High-speed button control provides quick response and feedback for machine jogging applications
- Create custom, reusable, add-on graphics, or adopt pre-built content from faceplate libraries to save time and promote consistency
- Configure the runtime web browser to display webpages, HTML help files, videos, and IP camera streams. Display content is stored locally on an SD card or USB drive, on a local server, or on the Internet
- Emulation capabilities allow for the test run of a project without downloading to decrease overall project risks
- Data logging and historical trending features show historical data immediately when the screen is displayed, helping decrease troubleshooting time
- The built-in VNC server enables a remote VNC client for monitoring and troubleshooting
- Studio 5000 View Designer is included, along with Studio 5000 Logix Designer, as part of Studio 5000. No additional licensing or activation is needed
- Sign in with user names and passwords local to the project or on an Active Directory server
- Import and export project contents in a textual format for external content generation. Use the FactoryTalk View ME to Studio 5000 View Designer conversion tool to convert View ME screen content into the View Designer import format

For product options, see Studio 5000 Ordering Guide, 9324-QR001

Micro Control Portfolio

Rockwell Automation® Micro Control Systems enable our customers to design their smart machines quickly, help their business to speed up time to market, lower total cost of ownership, improve asset utilization, and optimize overall operational productivity. As part of our Micro Control System, PanelView 800 graphic terminals offer a high-speed processor, high-resolution display, capability to connect to micro and small controllers, and remote monitoring capabilities. These terminals are ideal for your standalone machines to meet a wide variety of small to mid-size applications. They deliver a high-performance visualization solution for your smart machines.

Selection Overview

If Your Application Needs	Select
• Standalone machine • Micro and small controllers	PanelView 800 terminals

PanelView 800 Graphic Terminals

The PanelView 800 graphic terminals (Bulletin 2711R) feature a full line of 4 in., 7 in., and 10 in. displays. Preferred integration with Allen-Bradley® MicroLogix™, Micro800™, CompactLogix 5370, and CompactLogix 5380 families of logic controllers offers a control and visualization solution for various applications. The PanelView 800 platform includes the Connected Components Workbench software as the common programming software.

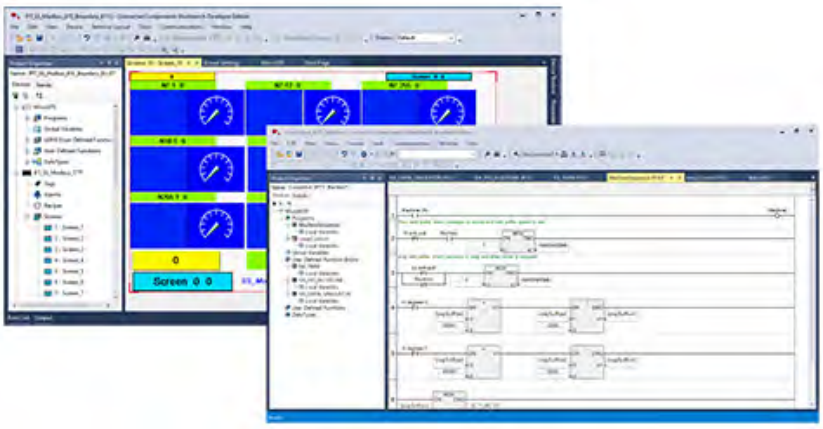
Other key features include the ability to do the following:

- Secure information on screens with user name and password protection
- Remote monitoring with Virtual Network Computing (VNC) server
- Alert operators with alarm messages that include embedded variables and an alarm status/history
- Upload and download groups of data or parameter settings within the recipe feature
- Use Connected Components Workbench software, the integrated design and configuration software that offers HMI programming and controller programming within the same common platform

For accessories, technical specifications, certifications, and environmental specifications on the PanelView 800 terminals, refer to the PanelView 800 Terminals Technical Data, publication 2711R-TD001.

Connected Components Workbench Software

Connected Components Workbench software simplifies standalone machine development by providing controller programming and simulation, device configuration, and integration with human machine interface (HMI) editor through an integrated design software.



Standard Edition (Free Download)

Provides a common, easy-to-use configuration and programming software for a Rockwell Automation Micro Control System, which includes a demo version of Micro800 Simulator

Developer Edition

Includes Standard Edition, the full version of Micro800 Simulator and Archive Manager, and extensive Micro800 controller programming capabilities for an optimized user experience.

Notes:

Visualization and computing products provide insight into critical production and process information, and enterprise data. Integrated display and non-display Thin Clients work with ThinManager® software for centrally managed content delivery. Across every type of industry, application, and manufacturing environment, these products accelerate development and enhance operation.

Industrial Computers

Our industrial computers offer solutions for the physical limitations and requirements of your environment. Non-display computers provide various options in form factors, RAM, storage, performance, operating temperatures, and optical drives. Integrated display computers are available in different screen sizes, storage options, performance packages, and models with built-in keypads.

Selection Overview

If Your Application Needs	Select	More Information
• HMI, IIoT gateway, and data logging • Robust mass storage • Environments prone to shock and vibration • Fanless options that require low maintenance • Class I Division 2 / ATEX harsh environments (model dependent)	ASEM 6300B Intel Atom Class Box PCs	See page 16
• Compact solution • For applications that need multiple ports or video outputs • Fanless	ASEM 6300B-JB1 Box PC Intel Celeron and Intel Core i Class Box PC	See page 17
• Mid-size solution • Custom operating system support • Fanless or fan-cooled, wall or book mount; optimal for environments with elevated temperatures	ASEM 6300B Intel Core i Class Box PCs	See page 17
• Touch screen • IP65 ingress protection for discrete production environments or IP69K (model dependent) ingress protection for washdown environments, such as food processing and life sciences	ASEM 6300P panel PCs ASEM 6300PA On-Machine™ panel PCs	See page 18
• Global Hazardous Location Certifications including UL Class 1 Division 2, ATEX, CCCEx, IECEx, INMETRO, and UKEx • Harsh environments: shock, and vibration • Global Ordinary Location Certifications including CE, UKCA, RCM, KC, EAC, NOM, BSMI, Morocco, UAE/KSA, and BIS • Wide temperature range of -20...+70 °C (-4...+158 °F) • Sunlight readable • Projected Capacitive (PCAP) multi-touch screen including glove use with sensitivity control	6181X box PCs 6181X panel PCs	See page 19

ASEM 6300 Industrial Box PCs

Our ASEM 6300B box PCs are available in multiple form factors and processors to match your application. Pair these PCs with FactoryTalk View SE or FactoryTalk Optix software to provide an optimal HMI experience within the Rockwell Automation Connected Enterprise® production system. All PCs come standard with the Windows 10 IoT Enterprise LTSC operating system but are optionally available without an operating system. FactoryTalk Remote Access Basic Runtime is included with all ASEM 6300 Industrial PCs.

ASEM 6300B box PCs enhance cybersecurity by integrating ThinManager software, allowing them to be deployed as thin clients. All ASEM industrial box PCs ship with the ThinManager BIOs on board, and are therefore ThinManager Ready devices. Multiple PCs with locally stored applications that are spread across a plant floor can increase the attack surface and security risks. ThinManager software allows applications to run and be maintained from a central and secure location.

ASEM 6300B Intel Atom Class Box PCs

- Includes Intel Apollo Lake or Elkhart Lake processor, which is ideal for HMI, IIoT gateway, and data logging applications
- Available in single or dual DisplayPort units that support up to 4K high resolution and feature up to 4 USB 3.0 ports, and up to four Ethernet ports, with a serial port available on the dual display model.
- Offers robust mass storage that is supplied by an M.2 SSD up to 240 GB (PC Only)
- Offers 4 GB or 8 GB DDR4 RAM that is permanently soldered to the motherboard to help prevent issues from shock and vibration
- Offers fanless, book mount construction, which is optimal for applications requiring low maintenance
- ThinManager Ready

ASEM 6300B Intel Atom Class Box PC Features

Feature	6300B Box PCs	6300B-EW1 Box PC
		
Processor	Intel® Atom™ x5-E3930 and/or x7-E3950	Elkhart Lake Intel Atom x6425E
System memory - RAM	Up to 8 GB	Up to 16 GB
Mass storage	Up to 480 GB	Up to 1 TB
Ports	Up to 2x video output (DP) Up to 4x USB 3.0 (Type A) Up to 4x Gb Ethernet Up to 1x Serial ports	4x USB 3.1 Gen2 (10 Gbps) 2x Ethernet 1 Gbps 1x Ethernet 2.5 Gbps 1x DisplayPort++ 1x DB9M multi std isolated serial port
Power	24V DC isolated	24V DC isolated
Mounting	DIN rail mount Book mount	Wall mount

ASEM 6300B Configure to Order Box PC Options

- Book mount or DIN Rail Mount
- With or Without OS
- Dual-Core Intel Atom x5-E3950 and Quad-Core Intel Atom x7-E3950 CPUs
- Trusted Platform Module (TPM) enabled BIOs
- Single display and dual display versions
- 4 GB and 8 GB versions
- Class I Division 2 / ATEX harsh environments (dual display model only)

ASEM 6300B Intel Core i Class Box PCs

- Includes Intel Celeron or Intel Core i3, i5, and i7 dual and quad-core 7th or 11th generation 64-bit processors for mid-size applications
- Provides 4 x Ethernet, 3 x USB 3.0 (Type A), 2 x USB 2.0 (Type A), 1 x RS-232 (DB9M), 1 x DVI-D
- Offers up to three PCIe expansion slots (model dependent)
- Available in a fanless design with book mount, wall mount, 24V DC
- Available as a fan-cooled unit with wall or book mount, which performs well in challenging environments with elevated temperatures

ASEM 6300B Intel Core i Class Box PC Features

Feature	6300B-BMB Box PC	6300B-PBC Box PC	6300B-PBD Box PC	6300B-JB1 Box PC
				
Processor	Intel Core i3, i5, and i7 processors	Intel Core i3, i5, and i7 processors	Intel Celeron, Intel Core i3, i5, and i7 processors	Intel Celeron, Intel Core i3, i5, or i7 processors
System memory - RAM	Up to 32 GB	Up to 32 GB	Up to 32 GB	Up to 32 GB
Mass storage	Up to 1 TB	Up to 1 TB	Up to 1 TB	Up to 2 TB
Dedicated Ports	4x Gb Ethernet 2x USB 3.0 (Type-A) 2x USB 2.0 (Type-A) 1X USB 3.0 (Type-A) front 1x RS-232 (DB9M) 1 DVI-D (resolution up to 1920x1080)	4x Gb Ethernet 3x USB 3.0 (Type-A) 2x USB 2.0 (Type-A) 1x RS-232 (DB9M) 1 DVI-D (resolution up to 1920x1080)	4x Gb Ethernet 4x USB 3.0 (Type-A) 1x RS-232 (DB9M) 1 DVI-D (resolution up to 1920x1080)	2x or 4x DisplayPort connectors 4x USB connectors Audio line in and line out 4x Gb Ethernet 1x RS-232 (DB9M; 4x DisplayPort only)
Optional Add-On Ports	1 RSR232 + USB 2.0 2 serial RS-232 2 USB 2.0 2 DisplayPort connectors	1 RSR232 + USB 2.0 2 serial RS-232 2 USB 2.0 1x Ethernet 2 DisplayPort connectors	1 RSR232 + USB 2.0 2 serial RS-232 2 USB 2.0 1x Ethernet 2 DisplayPort connectors	–
Power	24V DC (18...32V DC) isolated	24V DC (18...32V DC) isolated	24V DC (18...32V DC) isolated 115V/230V AC (85...264V AC) isolated, autoranging	24V DC (18...32V DC) isolated
Mounting	Book mount, with fan or fanless	Wall mount only, fanless	Wall mount only, with fan	DIN rail or book mount, fanless

ASEM 6300B Intel Core i Class Configure to Order Box PC Options

- Available for 6300B-BMB, 6300B-PBC, and 6300B-PBD Models
  - Trusted Platform Module (TPM) enabled BIOS
  - Additional system configuration expansion options (including support for RAID)
  - Additional communication ports
  - Storage options including CFAST
  - Long-distance Remote Video Link (RVL) connectivity

For accessories, technical specifications, certifications, and environmental specifications on the ASEM 6300 industrial box PCs, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

ASEM 6300 Industrial Panel PCs

Our ASEM 6300P Panel PCs handle complex industrial applications. Touch screen technologies, which enhance ease of use, include analog resistive and projected capacitive (for multitouch operation). This panel PC is available in various display sizes and resolutions. There are either Standard or Low Profile bezel options. Both have resolutions up to full high definition.

IP65 (model dependent) environmental protection makes the ASEM 6300P Panel PC an excellent match for washdown applications such as food processing and life sciences. Fanless construction helps to keep operation low-maintenance and enhance longevity.

ASEM 6300 Industrial Panel PC Features

Feature	6300P Panel PC 	6300PA On-Machine Panel PC 	6300P-EW1 Panel PCs 
Processor	Intel Celeron or Intel Core i3, i5, and i7 processors	Intel Celeron or Intel Core i3 and i5 processors	Elkhart Lake Intel Atom x6425E
System memory - RAM	Up to 32 GB	Up to 8 GB	Up to 16 GB
Mass storage	Up to 1 TB	Up to 1 TB	Up to 1 TB
Front panel	Aluminum Aluminum TrueFlat Aluminum and Glass TrueFlat Stainless-steel	Aluminum and Glass TrueFlat	Aluminum Aluminum TrueFlat Aluminum and Glass TrueFlat Stainless-steel
Protection grade options	IP65, IP69K (model dependent)	Full IP65	IP65, IP69K
Ports	Up to 5x USB (Type A) Up to 4x USB 3.0 (Type A) Up to 4x Gb Ethernet	Up to 3x USB (Type A) 2x USB 3.0 (Type A) 3x Gb Ethernet	4x USB 3.1 Gen2 (10 Gbps) 2x Ethernet 1 Gbps 1x Ethernet 2.5 Gbps 1x DisplayPort++ 1x DB9M multi std isolated serial port
Power	24V DC isolated	24V DC isolated	24V DC isolated
Mounting	Panel mount	VESA 75/100 Arm mount	Panel mount

For accessories, technical specifications, certifications, and environmental specifications on the ASEM 6300 industrial panel PCs, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

Industrial Computers for Specific Environments and Global Certifications

Our industrial computers offer solutions for the physical limitations and requirements of your environment. Some features include high-bright displays, PCAP multi-touch touchscreen, variable thickness glove use, ThinManager Ready, Wide Temperature Range, UL tested Ingress Protection, and Global Certifications. They come as box or display models, have multiple storage, RAM, TPM, and other options that include additional accessories. Thin Clients for Specific Environments and Global Certifications are also available.

6181X Industrial Computer Features

Feature	6181X Industrial Box and Panel Computers 
Processor	Intel Core i3-1115GRE Dual Core, 2.2 GHz, 11th Generation Tiger Lake
System memory - RAM	16 GB, 32 GB, or 64 GB (64 GB max)
Mass storage	256 GB, 512 GB, or 1 TB SSD drive, 2.5 in. SATA
Ports	2x RS-232 4x USB 3.0 2x Ethernet LAN, 1 Gb 1x DVI 1x DisplayPort 1x CFast slot (64 GB CFast accessory available) PCIe slot or PCI slot with accessory
Power	24V DC (18...32V DC) isolated
Mounting	Panel mount (display models) Wall mount (non-display models) Bookshelf Mount with accessory (non-display models)
Touch Screen	Projected Capacitive (PCAP) multi-touch screen including glove use with sensitivity control
Display	12" Sunlight Readable 1300 NIT display with optional sun shield
TPM	Hardware, Firmware, or None
ThinManager	ThinManager Ready
Operating Temperature	-20...+70 °C (-4...+158 °F)
Shock and Vibration	2 G Operating Vibration/3 G Nonoperating Vibration and 15 G Operating Shock / 30 G Nonoperating Shock
Ingress Protection	UL Type 1, 4, 4X, 12, 13, & IP66 on Display Models
Global Hazardous Location Certifications	UL Class 1 Division 2, ATEX, CCCEx, IECEx, INMETRO, and UKEx
Global Ordinary Location Certifications	CE, UKCA, RCM, KC, EAC, NOM, BSMI, Morocco, UAE/KSA, and BIS

For accessories, technical specifications, certifications, and environmental specifications on the 6181X hazardous location PCs, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

Industrial Monitors

Our industrial monitors deliver the latest in LCD flat-panel technology for rugged industrial environments. These monitors are optimized to work with 6300 industrial computers.

Selection Overview

If Your Application Needs	Select
• High-performance solution for industrial environments • UL Class 1 Div 2 ATEX Zone 2 hazardous location rated (6300M DC powered monitors)	ASEM 6300M monitors
• Adaptable mounting options • Optional button area for hard-wired elements	ASEM 6300MA On-Machine monitors

ASEM 6300 Industrial Monitors

The ASEM 6300M industrial monitors include a ten-point multitouch screen that can also be operated with gloves. The touch screens are precalibrated. These monitors are optimized to work with the ASEM 6300 industrial PCs and thin clients to create a visualization, maintenance, control, or information computing solution.

ASEM 6300M Industrial Monitor Features

Feature	ASEM 6300M Monitors 	ASEM 6300MA On-Machine Monitors 
Front panel	Standard Aluminum Wide-screen Aluminum Aluminum Trueflat Aluminum and Glass True Flat IP66 Stainless-steel IP69K Stainless-steel	Aluminum Aluminum and Glass True Flat
Protection grade options	IP65, IP66, IP69K	Full IP65
Video input	1xDVI-D and 1x DisplayPort OR 1x RJ45 (RVL connector for long-distance remotation)	1xDVI-D and 1x DisplayPort OR 1x RJ45 (RVL connector for long-distance remotation)
Ports	3x USB 2.0 + optional 1 x USB 2.0 (Type-A) front port (bezel dependent)	3x USB 2.0 + optional front ports
Power	24V DC isolated / 100...230V AC	24V DC isolated
Mounting	Panel Mount	VESA 75/100 Arm Mount

For accessories, technical specifications, certifications, and environmental specifications on the ASEM 6300 industrial monitors, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

Thin Clients

Thin clients are ideal for ThinManager distributed applications. You can have multiple thin clients configured across your plant or facility with the convenience of having them all maintained by the ThinManager server. All content remains on the server so downtime is reduced if a failure occurs. Integrated display and non-display Thin Clients work with ThinManager software for centrally managed content delivery. In addition to these thin clients, the 6181X Hazardous Location Computers and all ASEM 6300 Industrial Box and Panel PCs ship with a ThinManager Ready BIOS, allowing them to be deployed as thin clients as well.

Selection Overview

If Your Application Needs	Select	More Information
• Centralized application and security management • Distributed system with low-cost, low-maintenance client devices	ASEM 6300T box thin clients	See page 21
• Centralized application and security management • Distributed system with low-cost, low-maintenance client devices • Global Hazardous Location Certifications including UL Class 1 Division 2, ATEX, CCCEx, IECEx, INMETRO, and UKEx • Harsh environments: shock, and vibration • Global Ordinary Location Certifications including CE, UKCA, RCM, KC, EAC, NOM, BXMI, Morocco, UAE/KSA, and BIS • Wide temperature range of -20...+70 °C (-4...+158 °F) • Sunlight readable • Projected Capacitive (PCAP) multi-touch screen including glove use with sensitivity control	6181X box thin clients 6181X panel thin clients	See page 22
• Centralized application and security management • Distributed system with low-cost, low-maintenance client devices • Mobile operator terminal within line of sight of the process • Integrated with FactoryTalk View ME • On-terminal E-stop for a safe production environment • Operator mobility to increase productivity • Offers software assignable function keys, 3-position switch, momentary push button, or keyswitch	2711T MobileView Tethered Thin Client	See page 22

ASEM 6300T Box Thin Clients

Our ASEM 6300T Box Thin Clients feature Intel Apollo Lake Atom processors, making them ideal for human machine interface (HMI), IIoT gateway, and data logging applications. Atom class units are also available as ThinManager Ready thin clients to boot natively into ThinManager software with no solid-state (SSD) on board, for intellectual property security. These units have a fanless design, making them optimal for applications requiring low maintenance, and multiple mounting methods to fit application needs.

- DisplayPorts support up to 4K high resolution
- Fanless, book or DIN rail mount construction, 24V DC
- Operating temperature: 0...50 °C (32...122 °F)
- UL Class 1 Div 2/ATEX certification for dual display model

ASEM 6300T Box Thin Client Features

Feature	ASEM 6300T Single DisplayPort Thin Client	ASEM 6300T Dual DisplayPort Thin Client
		
Processor	Intel Atom Apollo Lake platform with x7-E3950 1.6 GHz processors	Intel Atom Apollo Lake platform with x7-E3950 1.6 GHz processors
System memory - RAM	4 GB or 8 GB	4 GB or 8 GB
Mass storage	None	None
Ports	Single DisplayPort 2x USB 3.0 (Type-A) 2 x Ethernet	Dual DisplayPort 4x USB 3.0 (Type-A) 2 x Ethernet 1 serial port Audio jack output
Power	24V DC (18...32V DC) isolated	24V DC (18...32V DC) isolated
Mounting	Book, DIN Rail, or Wall mount (available as an accessory kit)	Book or DIN Rail mount

For accessories, technical specifications, certifications, and environmental specifications on the ASEM 6300 thin clients, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

Thin Clients for Specific Environments and Global Certifications

6181X Thin Client Features

Feature	6181X Box and Panel Thin Clients 
Processor	Core i3-1115GRE
System memory - RAM	16...64 GB
Mass storage	None
Ports	RS-232 USB 3.0 Ethernet LAN, 1 Gb DVI DisplayPort CFast slot
Power	24V DC (18...32V DC) isolated
Mounting	Panel mount (display models) Wall mount (non-display models) Bookshelf Mount (non-display models with accessory)
Touch Screen	Projected Capacitive (PCAP) multi-touch screen including glove use with sensitivity control
Display	12" Sunlight Readable 1300 NIT display with optional sun shield
TPM	Hardware, Firmware, or None
ThinManager	ThinManager Ready
Operating Temperature	-20...+70 °C (-4...+158 °F)
Shock and Vibration	2 G Operating Vibration/3 G Nonoperating Vibration and 15 G Operating Shock / 30 G Nonoperating Shock
Ingress Protection	UL Type 1, 4, 4X, 12, 13, & IP66 on Display Models
Global Hazardous Location Certifications	UL Class 1 Division 2, ATEX, CCCEx, IECEx, INMETRO, and UKEx
Global Ordinary Location Certifications	CE, UKCA, RCM, KC, EAC, NOM, BSMI, Morocco, UAE/KSA, and BIS

For technical specifications, certifications, and environmental specifications on the 6181X hazardous location thin clients, see the Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001.

2711T MobileView Tethered Thin Client

Our MobileView Tethered Operator Terminals are mobile devices that help increase operator productivity and provide a safe production environment. The mobile operator interface runs the Windows Embedded Standard 7 operating system, but allows reuse of FactoryTalk View ME and FactoryTalk View Studio applications to help reduce development costs.

2711T MobileView Tethered Thin Client Features

Feature	2711T MobileView Tethered Thin Client 
Processor	Intel Atom E3815, 1.46 GH
System memory - RAM	4 GB DRAM
Mass storage	None
Ports	USB 2.0
Power	19.2...30V DC (EN61131-2), 500 mA at 24V DC, Peak inrush current of 5.6 A (max)
Mounting	Mounting Accessory

For accessories, technical specifications, certifications, and environmental specifications on the MobileView tethered thin client, refer to the MobileView Tethered Operator Terminals and Junction Boxes Technical Data, publication 2711T-TD001.

Thin Client Management Software

ThinManager thin client management software allows control and security in a sustainable and scalable platform regardless of the size of your industrial environment or number of facilities. The thin client architecture gives users the applications and tools familiar to them in a format that reduces management and maintenance costs while it increases security. ThinManager software acts as a centralized solution that seamlessly manages content that is delivered to industrial computers and thin clients.

Administrators can deliver multiple applications, with customized layouts to any terminal. Content can be easily displayed across multiple monitors and touch screens or securely delivered to mobile devices, based on the user, their location, or an event that has occurred. ThinManager software also supports multiple forms of user authentication. ThinManager Logix PinPoint is an application that works with ThinManager and Studio 5000 Logix Designer to simplify and accelerate the troubleshooting process when an alarm is seen within your FactoryTalk View SE application.

ThinManager increases security by never storing content on end devices. Once a user is authenticated by ThinManager, content such as HMI, MES, or CMMS applications, containerized software, or IP camera connections are delivered by ThinManager to the device. ThinManager-managed terminals can also be replaced in under two minutes, significantly reducing unplanned downtime in your facility.

Notes:

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
OptixPanel Operator Panels Specifications Technical Data, publication 2800-TD001	Provides technical specifications, certifications, and environmental specifications for the OptixPanel terminals.
PanelView 5310 Terminals Specifications Technical Data, publication 2713P-TD001	Provides technical specifications, certifications, and environmental specifications for the PanelView 5310 terminals.
PanelView 5510 Terminals Specifications Technical Data, publication 2715P-TD001	Provides technical specifications, certifications, and environmental specifications for the PanelView 5510 terminals.
PanelView Plus 7 Performance Terminals Technical Data, publication 2711P-TD009	Provides technical specifications, certifications, and environmental specifications for the PanelView Plus 7 Performance terminals.
PanelView Plus 7 Standard Terminals Technical Data, publication 2711P-TD008	Provides technical specifications, certifications, and environmental specifications for the PanelView Plus 7 Standard terminals.
PanelView 800 Terminals Technical Data, publication 2711R-TD001	Provides technical specifications, certifications, and environmental specifications for the PanelView 800 terminals.
MobileView Tethered Operator Terminal Technical Data, publication 2711T-TD001	Provides technical specifications, certifications, and environmental specifications for the MobileView tethered operator terminals.
Industrial PCs, Thin Clients, and Monitors Specifications Technical Data, publication 6300-TD001	Provides technical specifications, certifications, and environmental specifications for the industrial computers, thin clients, and monitors.
PanelView Plus 6 Terminals to PanelView Plus 7 Terminals Catalog Number Conversions Migration Guide, publication 2711P-AP004	Provides information on how to convert PanelView Plus 6 terminals to the new generation terminals: PanelView Plus 7 Performance terminals and PanelView Plus 7 Standard terminals.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications.	Provides declarations of conformity, certificates, and other certification details.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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