SIEMENS

Product overview for Panels

TIA Selection Tool Web

SIMATIC HMI Panels

SIMATIC HMI in area close to the machine - perfect for any industrial environment

The SIMATIC HMI portfolio offers the matching solution for any application: from basic keypads over mobile and stationary HMI devices all the way to the all-rounder for sophisticated applications – always robust, compact and with various connection options.

Devices for operator control and monitoring are used wherever humans must work with or on machines - from cylinder dryers to waste compactors. For many years, SIMATIC HMI Panels have been used in a large variety of applications in all branches of industry.

http://www.siemens.com/hmi

System overview

- SIMATIC Basic Panels 2nd Generation are suitable for cost-efficient implementation of basic visualization tasks in areas close to machines.
- SIMATIC HMI Comfort Panels offer Panel-based solutions for sophisticated applications with larger quantity structures.
- SIMATIC Comfort Panels PRO are a device series with a high degree of protection IP65 (NEMA4) and flexible mounting options.
- SIMATIC HMI Key Panels are compact and replace conventional operator panels. They are also lower in price because they are pre-assembled and ready for installation.
- SIMATIC HMI Mobile Panels 2nd Generation transfer the functionality and power of the SIMATIC HMI Comfort Panels to mobile HMI devices.
- The new SIMATIC HMI Unified Comfort Panels with high performance and state-of-the-art technology.

Highlights

Engineering in TIA Portal results in quick and easy visualization

- Possibility to benefit from unique library concept, intelligent editors, simulation and virtual commissioning.
- Possibility for configuration via scalable SIMATIC WinCC software in the TIA Portal.
- Interaction with STEP 7 prevents multiple entries and ensures data consistency even when using additional automation components.

High degree of user-friendliness thanks to innovative graphical user interface

- Use of innovative operating elements with dynamic or animated elements from libraries of the engineering system.
- Possibility to use your own style editor for your handwriting in the user interface.
- Hardware that optionally supports multi-touch gestures.

Safe operation for long-term protection of investments and know-how

- Created projects can be easily migrated to the successor product, spare parts and accessories are available long-term.
- Fail-safe inputs for safety switching elements can be connected directly as of Key Panels or installed directly in Mobile Panels and connected via PROFIsafe.

Easy commissioning saves money and time

- Easy installation and configuration (Plug & Play). Easy switch from a predecessor to a new device.
- Reliable error detection and error analysis starting in the engineering phase result in minimal downtimes all the way to service-friendly device replacement.

Integrated interfaces allow for easy integration into existing plant structures

- Panels can be easily integrated in PROFINET and PROFIBUS networks, and existing interfaces allow for the connection of USB devices.

Machine-level visualization with brilliant HMI devices

- Scalability and integrity across all device families.
- Reliability for all production conditions through various certificates or applications.

- Perfect readability through anti-reflective, glare-free and dimmable widescreen displays.

SIMATIC HMI Unified Comfort Panels

Hardware for the future of visualization

The new generation of high-end HMI devices that range in size from 7 to 22 inches are part of the SIMATIC WinCC Unified system. Compared to the predecessor devices, the new generation offers numerous improvements with regard to performance, openness and ease of use.

Thanks to the capacitive glass front with multitouch technology, the Unified Comfort Panels are as easy to operate as a smartphone or tablet. Vibrant colors and high contrasts improve the readability of the display and the user friendliness.

The visualization on the devices is based on SIMATIC WinCC Unified, the new visualization system in the TIA Portal. It offers users many new possibilities and functionalities across all device sizes.

The option to extend the functionality of the devices through apps is generally new in the SIMATIC HMI product portfolio. Up to now, HMI Panels were used exclusively for visualization software. Thanks to the integration of Siemens Industrial Edge, users can now run other programs at the same time in addition to the standard device functionality. This makes for quick and easy implementation of project-specific requirements.

https://www.siemens.com/unified-comfort-panels

Highlights

Size doesn't matter

- All six sizes of the Unified Comfort Panels offer the same number of hardware interfaces as well as the same functionality. All you have to do is choose the panel size.

Easy to use thanks to multi-touch

- Smartphone operation is the benchmark: Thanks to multi-touch technology, controlling the Unified Comfort Panels is as simple as it is elegant, offering maximum convenience with high contrast and the best readability.

Remote access via web client

- The maintenance-free web client enables flexible remote access to the visualization, independent of local operation at the device. Access is via the web browser without additional software.

Siemens Industrial Edge-enabled

- The new SIMATIC HMI Unified Comfort Panels are Edge-enabled. This opens up completely new possibilities, such as functional expansion through apps, and the processing and analysis of data directly at the machine.

Security Integrated

- The proprietary operating system – based on SIMATIC Industrial OS – enables maximum security. Unneeded interfaces and system apps can be disabled or uninstalled. Despite openness and expandability, the panels are more secure than ever before.

SIMATIC HMI Key Panels

SIMATIC HMI Key Panels - the smart alternative to long-travel keys

The compact SIMATIC HMI Key Panels replace conventional operator panels, but are less expensive because they are pre-assembled and ready for installation.

The devices are designed for direct control cabinet installation and can also be mounted on support arm and pedestal systems from various manufacturers via a flexible mechanism. This means that they can be optimally used on machines in any application - for ergonomic operation at various points in plants or production lines.

http://www.siemens.com/key-panels

Highlights

Time and cost savings thanks to low amount of work for wiring and assembly

- Devices are designed for direct installation in the control cabinet (IP65) and can be mounted using flexible mechanics and support arm and pedestal systems from various manufacturers.
- Devices can be mounted quickly and space-savingly using clamping technology or in a PRO empty enclosure - in the control cabinet as well as next to the machine.
- Pre-assembly ready for installation ensures time savings of over 60% during installation.
- Savings of over 30% in material costs.

Integrated safety functionality ensures fail-safe communication

- Fail-safe transmission of safety-related signals via PROFISAFE.
- For example, a SIL 3 emergency stop button can be connected to two fail-safe inputs (with the F versions).

Interfaces ensure easy integration into the automation solution

- Easy integration into existing automation networks thanks to two PROFINET-capable Ethernet interfaces on-board and integrated switch functionality (without complex cabling and without additional hardware).
- Line and ring structures can be set up.
- Panels can be mounted without gaps next to each other and the 24 V DC power supply can be looped through from the adjacent panel.

Integrated diagnostics ensure high availability

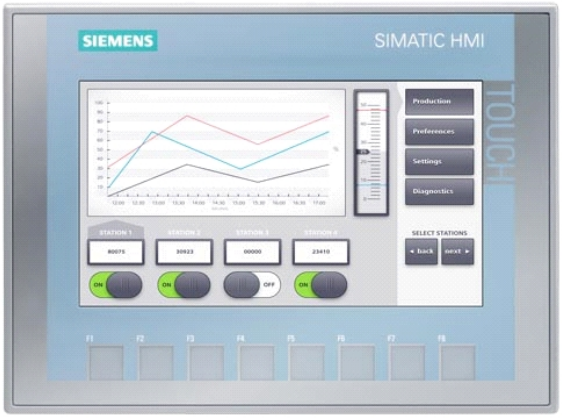
- Interference can be bridged using an integrated redundancy mechanism.
- The Media Redundancy Protocol (MRP) for networks in ring topology compensates, for example, for a cable break or component failure.

Bright keys ensure good operability

- All illuminated pushbuttons have a dimmable LED backlight.
- Five colors (red, green, blue, white, yellow) can additionally be displayed event-controlled.

A wide range of connection options create flexibility in application

- Integrated digital I/Os on the back of the device for connecting key switches, indicator lights, etc.



SIMATIC Basic Panel 2nd Generation

Cost-effective operation and monitoring in the second generation

SIMATIC Basic Panels 2nd Generation are suitable for cost-effective implementation of simple visualization tasks on the machine level. Their basic features and functionality as well as an attractive price make them perfect entry-level devices.

The Basic Panels 2nd Generation are suited for simple applications, compact systems and smaller applications with a limited configuration scale, where fast and intuitive operation is as important as the price-performance ratio.

http://www.siemens.com/basic-panels-2nd-generation

Highlights

Improved process quality of compact systems and smaller applications through visualization

- Integration of all important HMI basic functions thus opens up new possibilities for operating and monitoring in mechanical engineering at an especially attractive price.
- Standard integration of numerous software functions, such as alarm system, recipe management, trend functionality and language switching.
- Improved usability through new controls and graphics.

High degree of user-friendliness thanks to innovative graphical user interface

- User-friendly touch screens and especially practical, freely configurable keys.
- Integrated USB interface for connecting keyboard, mouse or barcode scanner and easy archiving of data on USB stick.
- Connection to various PLCs by integrating PROFIBUS and PROFINET interfaces.
- Visualization of applications of the modular, compact SIMATIC S7-1200 controllers.

Efficient engineering ensures cost and time savings

- Integrated engineering framework for controllers, HMIs and drives in the TIA Portal.

High Resolution Widescreen Displays

- Optional use of high resolution widescreen displays from 4" - 12". These can be installed in traditional horizontal format as well as vertical; the configuration software supports both installation alternatives.
- Improved process representation is possible thanks to the high resolution and the color depth of 64,000 colors. The brightness of the displays can be dimmed to 100% and thus offers optimum flexibility.

Scalable software for easy configuration

- The configuration is performed with SIMATIC WinCC (TIA Portal) in the inexpensive basic version. The intuitive usability and unique configuration efficiency of the engineering framework is provided even in this version.
- As requirements increase, projects created for a Basic Panel can be easily transferred to devices of other performance classes or display sizes.

SIMATIC HMI Comfort Panels

High-end operator panels for demanding HMI tasks

SIMATIC HMI Comfort Panels offer Panel-based solutions for complex, large-scale applications. They feature wide-ranging functionality and a wide range of devices and applications, optionally with key or touch operation. Available as stationary and mobile solution.

SIMATIC HMI Comfort Panels are designed for the implementation of high-performance visualization tasks on the machine level. High performance, functionality and numerous integrated interfaces offer maximum convenience for high-end applications.

http://www.siemens.com/comfort-panels

Highlights

Broad and scalable product portfolio with standard functionality creates flexible application options

- High-resolution dimmable widescreen displays from 4" to 22" display size (optionally with touch control or control keys), more display area with the same display height and dimmable backlighting.
- Extended display options for complex operator screens and a clear division between application monitoring and operation.
- High functional range through new objects such as f(x) trend display, system diagnostics display, camera control, PDF printer, media player, document viewer, etc.
- Higher system limits compared to the predecessor as well as features not yet supported (such as scripts, logs, OPC communication, Sm@rtServer, etc.).

Simple commissioning and fast service ensure cost and time savings

- Use of standard cables for loading HMI projects via PROFINET / Ethernet.
- Device settings are simply made during configuration.
- Project data and device settings are stored on a system card located in the device and are updated automatically. The system card can be used to transfer projects to other devices.
- 100% protection against voltage failure prevents loss of data, minimizes downtimes and enables simple device replacement without additional hardware or software.
- Possibility of system diagnostics in conjunction with SIMATIC controllers, especially SIMATIC S7-1200 and S7-1500.

Efficient energy management reduces energy consumption

- Standardized PROFIenergy protocol enables coordinated central shutdown of unneeded energy consumers and recording of energy measurement values.
- Long-term investment protection through simple integration into existing standards.

Integrated interfaces allow for easy integration into existing plant structures

- Panels can be integrated into PROFINET and PROFIBUS networks.
- Interfaces for connecting USB peripherals (as of 7", 2-port Ethernet switch; as of 15", additional Gigabit PROFINET interface).

Maximum data security in case of power failure

- Comfort Panels buffer enough energy in the event of a power failure to correctly terminate all active logging without the use of a maintenance-intensive battery.

Ruggedness ensures use in harsh environments

- Rugged devices thanks to durable die-cast aluminum fronts (from 7") and approvals for use in various countries and in industries with increased requirements.
- Application options in hazardous areas according to UL CL.I, Div.2. All devices up to 12" offer ATEX certifications for zones 2 and 22 and various shipbuilding approvals such as GL or ABS.
- Deployable independent of location and industry due to wide temperature range from 0°C to 55°C for the standard devices and from -30°C to +60°C with max. 90%

humidity for the outdoor versions.

- Touch devices can also be installed vertical to optimize space requirements or special machine designs.

SIMATIC HMI Comfort Panels PRO

SIMATIC HMI PRO - fully-enclosed IP65 protection without compromise

SIMATIC Comfort Panels PRO are a series of devices with high IP65 (NEMA4) degree of protection and flexible mounting options - directly on the machine using special adapters, on a pedestal or on a support arm system.

Thanks to their high performance, functionality and numerous integrated interfaces, they offer maximum convenience for high-end applications and are especially suitable for implementing high-performance visualization tasks in machine-level areas.

http://www.siemens.com/simatic-hmi-pro

Highlights

Modern design and universal scalability create flexible application options

- Slim enclosure with small depth, new scratch-resistant glass front and narrow frame.
- Devices can be dimensioned to suit machines and applications through a flexible selection of device type, performance class and display size.
- Individual selection and combination of basic units, expansion components and mounting options.
- High fully-enclosed IP65 degree of protection (against water and dust).
- Individual expandability through extension units.

Different operating options ensure high operating convenience

- Gesture, single and multiple finger operation (even with thin working gloves).
- Individual design by selecting your own design or style.

High flexibility in the place of use and easy connection

- Devices including extensions can be mounted to support arm and pedestal systems of different manufacturers using a flexible mechanism. Separate handle extension provides even more operating convenience.
- Simple connection and minimized wiring through communication with PROFINET and PROFIsafe.

High level of service friendliness leads to cost and time savings

- Rear panel can be easily removed even when the machine is mounted, e.g. for subsequent cabling or replacement of memory cards.

High reliability and operating safety creates long-term availability

- High operating safety through PROFIsafe, two-hand operation and palm recognition.

Fast commissioning provides cost savings

- Simple installation and configuration (Plug & Play) and easy changeover from a predecessor to a new device.
- Configuration in TIA Portal reduces costs during commissioning.

Protection of processes and plants against unauthorized access

- Plant protection through key switches and RFID access authorization as well as optional safety elements such as emergency stop.

SIMATIC HMI Mobile Panels

Power and safety in your hands

The SIMATIC HMI Mobile Panels 2nd Generation with 4", 7" or 9" display and wired connection to PROFINET, transfer the functionality and performance of the SIMATIC HMI Comfort Panels to mobile HMI devices. The brilliant widescreen display in 16:9 aspect ratio with 16 million colors displays even complex process or plant pictures clearly and in great detail.

Portable HMI devices - wired or wireless - offer decisive advantages, regardless of industry or application, when mobility is required for operating and monitoring machines and plants on site. They are ideal for small machines with limited space.

http://www.siemens.com/mobile-panels

Highlights

High user-friendliness supports the implementation of demanding mobile applications

- 4", 7" or 9" widescreen display is continuously dimmable up to 100% and can be adapted to different environments.
- High-definition, bright and detailed picture in 16 million colors.
- Even complex operator screens or graphics can be displayed thanks to approx. 40% more available display area.
- Freely configurable F and K keys (e.g. for alarm system, recipe management, trend functionality, archiving or language switching).
- Function keys can be freely labeled and are illuminated by LEDs.
- Can be used in marine or shipbuilding applications thanks to certification according to ABS, DNV, GL, LRS and Class NK.

Space-saving and rugged design ensures flexibility in connection and mounting

- The connection box requires only one third of the space of the normal connection box (it is screwed onto the outside of the switch cabinet door and then completely wired from the inside).
- Space-saving design allows the device to fit anywhere, on the machine or plant.

Safety functions enable integration into safety applications

- Device versions with emergency stop and stop button on the top and enable button on the back of the device allow for flexible configuration of the safety solution.
- The emergency stop button is only enabled (and illuminated red) if the device is integrated into a safety circuit via the connection box.
- Devices support the evaluation of the safety elements via hard-wired safety relays (e.g. SIRIUS), fail-safe I/Os (e.g. SIMATIC ET 200) and PROFISAFE with fail-safe controllers of the SIMATIC S7 family (e.g. SIMATIC S7-1200F and S7-1500F).

USB interface enables configuration or recipe storage to be restored

- The Mobile Panels 2nd Generation have an integrated slot for a standard USB flash drive.
- When the sealing cap of the USB slot is closed, IP65 degree of protection is achieved.

Connection to PROFINET enables seamless integration into plant-wide automation

- Wired connection to PROFINET.

Engineering in TIA Portal results in quick and easy visualization

- With WinCC in the TIA Portal, operator screens can now be easily configured for both stationary and mobile applications or transferred at the push of a button.
- The HMI design can be easily integrated into the HMI device and centrally managed using the style editor.

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