

Overview



SIMATIC HMI Comfort PRO: The new Comfort Panel PRO with all-round IP65 protection – powerful, maintenance-free, and can be installed directly at the machine

SIMATIC HMI Comfort Panels PRO with 12", 15", 19" and 22" widescreen format expand the Comfort Panel portfolio to include devices with glass fronts.

The rugged aluminum housing enables it to be used directly at the machine and guarantees durability, even in harsh and extreme operating environments.

Highlights:

- All-round IP65 protection
- Comfort Panel functionality and performance
- Rugged, industrial 12", 15", 19" and 22" widescreen displays
- Slim, modern design
- Can be adapted to support arm system of various manufacturers
- Integration of operator controls with Extension Units
- High degree of investment security
- Fast integration capability

12", 15", 19" and 22" SIMATIC HMI Comfort Panels PRO are available in three different versions, depending on the application:

- Prepared for support arm and extension components (mounting by means of standard 48 mm round tube or Siemens flange adapter)
- Prepared for support arm without extension components (mounting by means of basic adapter and flange on top, included in scope of supply)
- Prepared for pedestal/extension components (mounting by means of basic adapter and flange below, included in scope of supply)

For more information, please go to:

<http://siemens.com/simatic-hmi-pro>

System components for fully enclosed IP65 devices

System components for PRO devices are only suitable for SIMATIC HMI/IPC PRO devices.

In combination with the SIMATIC HMI PRO basic devices, these components enable easy adaptation to individual customer requirements for operator control and monitoring at the machine level, as well as offering a versatile and attractive solution for visualization and automation without a control cabinet.

The following system components are available:

- Fasteners
 - Adapter sets
 - Basic adapter
 - Flange mount
- Extension Units 12" - 22" with operator controls
- Extension components
 - Stainless steel keyboard
 - Tool and keyboard tray

For more detailed information about system components refer to "PC-based Automation" -> "Devices for special requirements" -> "System components".

Technical specifications

Article number	6AV2124-0MC24-0AX0 SIMATIC HMI TP1200 Comfort Pro	6AV2124-0MC24-1AX0 SIMATIC HMI TP1200 Comfort Pro	6AV2124-0MC24-0BX0 SIMATIC HMI TP1200 Comfort Pro
General information			
Product type designation	SIMATIC HMI TP1200 Comfort PRO	SIMATIC HMI TP1200 Comfort PRO	SIMATIC HMI TP1200 Comfort PRO
Display			
Design of display	TFT	TFT	TFT
Screen diagonal	12.1 in	12.1 in	12.1 in
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	1 280 Pixel	1 280 Pixel	1 280 Pixel
• Vertical image resolution	800 Pixel	800 Pixel	800 Pixel
Backlighting			
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h
• Backlight dimmable	Yes; LED, dimmable	Yes; LED, dimmable	Yes; LED, dimmable
Touch operation			
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive

Overview



SIMATIC HMI TP Comfort Panels INOX and INOX PCT ¹⁾

Panels with touch screens (analog-resistive or projective-capacitive) and stainless steel fronts are designed for use in the food, beverages and tobacco industry, the pharmaceutical industry, fine chemicals and in other hygiene areas for machine-level operator control and monitoring.

For this reason, the devices with stainless steel front have been developed in compliance with EN 1672-2 "Food processing machinery – Safety and Hygiene Requirements".

¹⁾ PCT = Projected Capacitive Touchscreen

<http://www.siemens.com/comfort-panels-inox>

Technical specifications

Article number	6AV2144-8GC10-0AA0	6AV2144-8JC10-0AA0	6AV2144-8MC10-0AA0	6AV2144-8QC10-0AA0	6AV2144-8UC10-0AA0
	SIMATIC HMI TP700 COMFORT INOX	SIMATIC HMI TP900 COMFORT INOX	SIMATIC HMI TP1200 COMFORT INOX	SIMATIC HMI TP1500 COMFORT INOX	SIMATIC HMI TP1900 COMFORT INOX
General information					
Product type designation	TP700 Comfort INOX	SIMATIC HMI TP900 Comfort INOX	TP1200 Comfort INOX	SIMATIC HMI TP1500 Comfort INOX	TP1900 Comfort INOX
Display					
Design of display	TFT	TFT	TFT	TFT	TFT
Screen diagonal	7 in	9 in	12.1 in	15.4 in	18.5 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)					
• Horizontal image resolution	800 Pixel	800 Pixel	1 280 Pixel	1 280 Pixel	1 366 Pixel
• Vertical image resolution	480 Pixel	480 Pixel	800 Pixel	800 Pixel	768 Pixel
Backlighting					
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h	80 000 h	50 000 h
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Keyboard fonts					
• Function keys					
- Number of function keys	0	0	0	0	0
Touch operation					
• Design as touch screen	Yes	Yes	Yes	Yes	Yes
Installation type/mounting					
Mounting in portrait format possible	Yes	Yes	Yes	Yes	Yes
Supply voltage					
Type of supply voltage	DC	DC	DC	DC	DC
Rated value (DC)	24 V	24 V	24 V	24 V	24 V
Memory					
Memory available for user data	12 Mbyte	12 Mbyte	12 Mbyte	24 Mbyte	24 Mbyte
Type of output					
Acoustics					
• Speaker	Yes	Yes	Yes	Yes	Yes

Operator panels

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Comfort Panels INOX

SIMATIC HMI TP Comfort Panels INOX and INOX PCT

Technical specifications (continued)

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 COMFORT INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX	6AV2144-8QC10-0AA0 SIMATIC HMI TP1500 COMFORT INOX	6AV2144-8UC10-0AA0 SIMATIC HMI TP1900 COMFORT INOX
Time of day					
Clock					
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes	Yes	Yes	Yes	Yes
Interfaces					
Number of industrial Ethernet interfaces	1; 2 ports (switch)	1; 2 ports (switch)	1; 2 ports (switch)	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422/485 combined	1; RS 422/485 combined	1; RS 422/485 combined	1; RS 422/485 combined	1; RS 422/485 combined
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole	1; 5-pole	1; 5-pole	1; 5-pole	1; 5-pole
Number of SD card slots	2	2	2	2	2
Industrial Ethernet					
• Number of ports of the integrated switch	2	2	2	2	2
Protocols					
PROFINET	Yes	Yes	Yes	Yes	Yes
IRT	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12
MRP	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes	Yes
PROFIBUS	Yes	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes	Yes
Degree and class of protection					
IP (at the front)	IP66K	IP66K	IP66K	IP66K	IP66K
Enclosure Type 4x at the front	Yes; indoor use only	Yes; indoor use only	Yes; indoor use only	Yes; indoor use only	Yes; indoor use only
IP (rear)	IP20	IP20	IP20	IP20	IP20
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes
FM approval	Yes		Yes		
RCM (formerly C-TICK)	Yes		Yes		
KC approval	Yes		Yes		
EAC (formerly Gost-R)	Yes	Yes	Yes	Yes	Yes
Marine approval					
• Germanischer Lloyd (GL)	No	No	No	Yes	Yes
• American Bureau of Shipping (ABS)	No	No	No	Yes	Yes
• Bureau Veritas (BV)	No	No	No	Yes	Yes
• Det Norske Veritas (DNV)	No	No	No	Yes	Yes
• Korean Register of Shipping (KRS)			No		
• Lloyds Register of Shipping (LRS)	No	No	No	Yes	Yes
• Nippon Kaiji Kyokai (Class NK)	No	No	No	No	No
• Polski Rejestr Statkow (PRS)	No	No	No	Yes	Yes
Use in hazardous areas					
• ATEX Zone 2	Yes	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes	Yes
• FM Class I Division 2	Yes	No	Yes	No	No

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Technical specifications (continued)

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 COMFORT INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX	6AV2144-8QC10-0AA0 SIMATIC HMI TP1500 COMFORT INOX	6AV2144-8UC10-0AA0 SIMATIC HMI TP1900 COMFORT INOX
Ambient conditions					
Ambient temperature during operation					
• Operation (vertical installation)					
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C	50 °C	50 °C	45 °C
Relative humidity					
• Operation, max.	90 %; no condensation	90 %; no condensation	80 %; no condensation	80 %; no condensation	70 %; no condensation
Configuration					
Configuration software					
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; from V11	Yes; from V11	Yes; V11 SP2 or higher	Yes; V11 SP2 or higher
Languages					
Online languages					
• Number of online/runtime languages	32	32	32	32	32
Functionality under WinCC (TIA Portal)					
Applications/options					
• Web browser	Yes	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes	Yes
Task planner					
• time-controlled	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes
Message system					
• Bit messages					
- Number of bit messages	4 000	4 000	4 000	6 000	6 000
• Analog messages					
- Number of analog messages	200	200	200	200	200
• Message buffer					
- Number of entries	1 024	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes
Recipe management					
• Number of recipes	300	300	300	500	500
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes	Yes
Variables					
• Number of variables per device	2 048	2 048	2 048	4 096	4 096
• Number of variables per screen	400	400	400	400	400
Images					
• Number of configurable images	500	500	500	750	750
Archiving					
• Number of archives per device	50	50	50	50	50

Operator panels

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Technical specifications (continued)

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 COMFORT INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX	6AV2144-8QC10-0AA0 SIMATIC HMI TP1500 COMFORT INOX	6AV2144-8UC10-0AA0 SIMATIC HMI TP1900 COMFORT INOX
Functionality under WinCC (TIA Portal) (continued)					
Security					
• Number of user groups	50	50	50	50	50
• Number of users	50	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes	Yes
Logging through printer					
• Alarms	Yes	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)					
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes	Yes
Process coupling					
• S7-1200	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes
Peripherals/Options					
Peripherals					
• Printer	Yes	Yes	Yes	Yes	Yes
• SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
• SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
• USB memory	Yes	Yes	Yes	Yes	Yes
• Network camera	Yes	Yes	Yes	Yes	Yes
Mechanics/material					
Enclosure material (front)					
• Plastic	No	No	No	No	No
• Aluminum	No	No	No	No	No
• Stainless steel	Yes	Yes	Yes	Yes	Yes
Dimensions					
Width of the housing front	214 mm	274 mm	330 mm	415 mm	483 mm
Height of housing front	158 mm	190 mm	241 mm	310 mm	337 mm
Mounting cutout, width	197 mm	250 mm	310 mm	396 mm	465 mm
Mounting cutout, height	141 mm	166 mm	221 mm	291 mm	319 mm
Overall depth	65 mm	65 mm	67 mm	75 mm	73 mm
Weights					
Weight without packaging	1.9 kg	2.5 kg	3.6 kg	6.6 kg	8.5 kg

SIMATIC HMI TP Comfort Panels INOX and INOX PCT

Ordering data	Article No.	More information
SIMATIC HMI TP Comfort Panel INOX <i>With analog-resistive touch and front membrane</i> SIMATIC HMI TP700 Comfort Panel INOX With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8GC10-0AA0	<u>Customer-specific modifications</u> • Customized design (logo, type designation and background color) • Protection against condensation and corrosive gases <u>Quotation preparation</u> • Customized automation specialists define the product modifications precisely in accordance with customer requirements. The quotation is then prepared with - Non-recurring costs - Prototype costs - Serial device prices and - the general conditions in the form of a product agreement (e.g. minimum quantity). • The defined device can then be ordered easily using this product agreement and a customized order number. More information is available on the Internet at: http://www.siemens.com/comfort-panels-inox
SIMATIC HMI TP900 Comfort Panel INOX With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8JC10-0AA0	
SIMATIC HMI TP1200 Comfort Panel INOX With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8MC10-0AA0	
SIMATIC HMI TP1500 Comfort Panel INOX With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8QC10-0AA0	
SIMATIC HMI TP1900 Comfort Panel INOX With accessory pack comprising: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8UC10-0AA0	
SIMATIC HMI TP Comfort Panel INOX PCT <i>With projective-capacitive touch and front glass</i> SIMATIC HMI TP900 Comfort Panel INOX PCT With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8JC20-0AA0	
SIMATIC HMI TP1200 Comfort Panel INOX PCT With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.	6AV2144-8MC20-0AA0	
Accessories	See chapter 6	

The device seals can be replaced using the corresponding service packages from the accessories.