

Overview



Comfort Panel family, KP, TP, KTP

SIMATIC HMI Comfort Panels Standard

- Excellent HMI functionality for demanding applications
- Widescreen TFT displays with 4", 7", 9", 12", 15", 19" and 22" diagonals (all 16 million colors) with up to 40% more visualization area as compared to the predecessor devices
- Integrated high-end functionality with archives, scripts, PDF/Word/Excel viewer, Internet Explorer, Media Player and Web Server
- Dimmable displays from 0 to 100% via PROFlenergy, via the HMI project or via a controller
- Modern industrial design, cast aluminum fronts for 7" upwards
- Upright installation for all touch devices
- Optimal selection option: seven touch and five key versions are available
- Data security in the event of a power failure for the device and for the SIMATIC HMI Memory Card
- Innovative service and commissioning concept
- Maximum performance with short screen refresh times
- Suitable for extremely harsh industrial environments thanks to extended approvals such as ATEX 2/22 and marine approvals
- All versions can be used as an OPC UA client or as an OPC DA server
- Key-operated devices with LED in every function key and new text input mechanism, similar to the keypads of mobile phones
- All keys have a service life of 2 million operations
- Configuring with the WinCC engineering software of the TIA Portal

Note:

A 7" and a 15" Comfort Outdoor version are available. These devices have been specially designed for outdoor applications in a difficult environment. Best display quality, even under sunlight, UV-resistant fronts and much more.

For further information, please go to:

<http://www.siemens.com/hmi>

Technical specifications (continued)

Article number	6AV2124-2DC01-0AX0 SIMATIC HMI KTP400 COMFORT	6AV2124-0GC01-0AX0 SIMATIC HMI TP700 COMFORT	6AV2124-0JC01-0AX0 SIMATIC HMI TP900 COMFORT	6AV2124-0MC01-0AX0 SIMATIC HMI TP1200 COMFORT
Peripherals/Options				
Peripherals				
• Printer	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
• 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
• USB memory	Yes	Yes	Yes	Yes
• Network camera	Yes	Yes	Yes	Yes
Mechanics/material				
Enclosure material (front)				
• Plastic	Yes	No	No	No
• Aluminum	No	Yes	Yes	Yes
• Stainless steel	No	No	No	No
Dimensions				
Width of the housing front	140 mm	214 mm	274 mm	330 mm
Height of housing front	116 mm	158 mm	190 mm	241 mm
Mounting cutout, width	123 mm	197 mm	251 mm	310 mm
Mounting cutout, height	99 mm	141 mm	166 mm	221 mm
Overall depth	49 mm	63 mm	63 mm	65 mm
Weights				
Weight without packaging	0.6 kg	1.4 kg	1.9 kg	2.8 kg

Article number	6AV2124-0QC02-0AX1 SIMATIC HMI TP1500 COMFORT	6AV2124-0UC02-0AX1 SIMATIC HMI TP1900 COMFORT	6AV2124-0XC02-0AX1 SIMATIC HMI TP2200 COMFORT
General information			
Product type designation	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1900 Comfort	SIMATIC HMI TP2200 Comfort
Display			
Design of display	TFT	TFT	TFT
Screen diagonal	15.4 in	18.5 in	21.5 in
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	1 280 Pixel	1 366 Pixel	1 920 Pixel
• Vertical image resolution	800 Pixel	768 Pixel	1 080 Pixel
Backlighting			
• MTBF backlighting (at 25 °C)	80 000 h	50 000 h	30 000 h
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Operator controls			
Keyboard fonts			
• Function keys			
- Number of function keys	0	0	0
Touch operation			
• Design as touch screen	Yes	Yes	Yes
Installation type/mounting			
Mounting in portrait format possible	Yes	Yes	Yes
Supply voltage			
Type of supply voltage	DC	DC	DC
Rated value (DC)	24 V	24 V	24 V
Memory			
Memory available for user data	24 Mbyte	24 Mbyte	24 Mbyte

Operator panels

Advanced HMI – Panel-based
Comfort Panels

Comfort Panels Standard

Technical specifications (continued)

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Type of output			
Acoustics			
• Speaker	Yes	Yes	Yes
Time of day			
Clock			
• Hardware clock (real-time)	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
• synchronizable	Yes	Yes	Yes
Interfaces			
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port	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
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0
Number of SD card slots	2	2	2
Industrial Ethernet			
• Number of ports of the integrated switch	2	2	2
Protocols			
PROFINET	Yes	Yes	Yes
IRT	Yes; As of WinCC V14 SP1 HSP	Yes; As of WinCC V14 SP1 HSP	Yes; As of WinCC V14 SP1 HSP
MRP	Yes	Yes	Yes
PROFIBUS	Yes	Yes	Yes
MPI	Yes	Yes	Yes
Degree and class of protection			
IP (at the front)	IP65	IP65	IP65
Enclosure Type 4x at the front	Yes	Yes	Yes
IP (rear)	IP20	IP20	IP20
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
cULus	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes
KC approval	Yes	Yes	Yes
Marine approval			
• Germanischer Lloyd (GL)	No	No	No
• American Bureau of Shipping (ABS)	No	No	No
• Bureau Veritas (BV)	No	No	No
• Det Norske Veritas (DNV)	No	No	No
• Lloyds Register of Shipping (LRS)	No	No	No
• Nippon Kaiji Kyokai (Class NK)	No	No	No
• Polski Rejestr Statkow (PRS)	No	No	No
Use in hazardous areas			
• ATEX Zone 2	No	No	No
• ATEX Zone 22	No	No	No
• IECEx Zone 2	No	No	No
• IECEx Zone 22	No	No	No
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes
• FM Class I Division 2	Yes	Yes	Yes
Ambient conditions			
Ambient temperature during operation			
• Operation (vertical installation)			
- For vertical installation, min.	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C; (55 °C, see entry ID:64847814)	45 °C	45 °C
Relative humidity			
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation

Technical specifications (continued)

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Configuration			
Configuration software			
• WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP or higher	Yes; V14 SP1 HSP or higher	Yes; V14 SP1 HSP or higher
Languages			
Online languages			
• Number of online/runtime languages	32	32	32
Functionality under WinCC (TIA Portal)			
Applications/options			
• Web browser	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes
Task planner			
• time-controlled	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes
Message system			
• Bit messages			
- Number of bit messages	6 000	6 000	6 000
• Analog messages			
- Number of analog messages	200	200	200
• Message buffer			
- Number of entries	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes
- retentive	Yes	Yes	Yes
Recipe management			
• Number of recipes	500	500	500
• Size of internal recipe memory	4 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes
Variables			
• Number of variables per device	4 096	4 096	4 096
• Number of variables per screen	400	400	400
Images			
• Number of configurable images	750	750	750
Archiving			
• Number of archives per device	50	50	50
Security			
• Number of user groups	50	50	50
• Number of users	50	50	50
• SIMATIC Logon	Yes	Yes	Yes
Logging through printer			
• Alarms	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes
• Electronic print to file	Yes; pdf, html	Yes; pdf, html	Yes; pdf, html
Transfer (upload/download)			
• MPI/PROFIBUS DP	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes

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Technical specifications (continued)

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Process coupling			
• S7-1200	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes
Peripherals/Options			
Peripherals			
• Printer	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
• SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
• USB memory	Yes	Yes	Yes
• Network camera	Yes	Yes	Yes
Mechanics/material			
Enclosure material (front)			
• Plastic	No	No	No
• Aluminum	Yes	Yes	Yes
• Stainless steel	No	No	No
Dimensions			
Width of the housing front	415 mm	483 mm	560 mm
Height of housing front	310 mm	337 mm	380 mm
Mounting cutout, width	396 mm	465 mm	542 mm
Mounting cutout, height	291 mm	319 mm	362 mm
Overall depth	75 mm	75 mm	75 mm
Weights			
Weight without packaging	5.2 kg	6.5 kg	7.1 kg

Ordering data	Article No.		Article No.
SIMATIC HMI Comfort Panels			
Key and touch devices			
SIMATIC HMI KTP400 Comfort Key/touch-screen operation; 4" widescreen display	6AV2124-2DC01-0AX0		
Touch devices			
SIMATIC HMI TP700 Comfort Touch-screen operation; 7" widescreen display	6AV2124-0GC01-0AX0		
SIMATIC HMI TP900 Comfort Touch-screen operation; 9" widescreen display	6AV2124-0JC01-0AX0		
SIMATIC HMI TP1200 Comfort Touch-screen operation; 12" widescreen display	6AV2124-0MC01-0AX0		
SIMATIC HMI TP1500 Comfort Touch-screen operation; 15" widescreen display	6AV2124-0QC02-0AX1		
SIMATIC HMI TP1900 Comfort Touch-screen operation; 19" widescreen display	6AV2124-0UC02-0AX1		
SIMATIC HMI TP2200 Comfort Touch-screen operation; 22" widescreen display	6AV2124-0XC02-0AX1		
Key devices			
SIMATIC HMI KP400 Comfort Key operation; 4" widescreen display	6AV2124-1DC01-0AX0		
SIMATIC HMI KP700 Comfort Key operation; 7" widescreen display	6AV2124-1GC01-0AX0		
SIMATIC HMI KP900 Comfort Key operation; 9" widescreen display	6AV2124-1JC01-0AX0		
SIMATIC HMI KP1200 Comfort Key operation; 12" widescreen display	6AV2124-1MC01-0AX0		
SIMATIC HMI KP1500 Comfort Key operation; 15" widescreen display	6AV2124-1QC02-0AX1		
		Starter kits for SIMATIC HMI Comfort Panels	
		Consisting of: the respective SIMATIC HMI Comfort Panel, SIMATIC WinCC Comfort, Ethernet cable, 2 m SIMATIC HMI Memory Card 2 GB 10 protective films for touch screen devices	
		Starter kit for SIMATIC HMI KTP400 Comfort, Key and Touch	6AV2181-4DB20-0AX0
		Starter kit for SIMATIC HMI TP700 Comfort, Touch	6AV2181-4GB00-0AX0
		Starter kit for SIMATIC HMI TP900 Comfort, Touch	6AV2181-4JB00-0AX0
		Starter kit for SIMATIC HMI TP1200 Comfort, Touch	6AV2181-4MB00-0AX0
		Starter kit for SIMATIC HMI TP1500 Comfort, Touch	6AV2181-4QB00-0AX0
		Starter kit for SIMATIC HMI TP1900 Comfort, Touch	6AV2181-4UB00-0AX0
		Starter kit for SIMATIC HMI TP2200 Comfort, Touch	6AV2181-4XB00-0AX0
		Starter kit for SIMATIC HMI KP400 Comfort, Key	6AV2181-4DB10-0AX0
		Starter kit for SIMATIC HMI KP700 Comfort, Key	6AV2181-4GB10-0AX0
		Starter kit for SIMATIC HMI KP900 Comfort, Key	6AV2181-4JB10-0AX0
		Starter kit for SIMATIC HMI KP1200 Comfort, Key	6AV2181-4MB10-0AX0
		Starter kit for SIMATIC HMI KP1500 Comfort, Key	6AV2181-4QB10-0AX0
		Accessories	See "Operator Control and Monitoring Systems SIMATIC HMI" -> "Accessories"

More information

More information is available on the Internet at:

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

You can find an overview of approved printers, supply sources and printer settings on the Internet at:

<http://support.automation.siemens.com/WWW/view/en/11376409>

Note:

Do you need a specific modification or extension to the products described here? Then look up "Customized products", where you will find information about additional sector-specific products that can be ordered as well as about options for customer-specific modification and adaptation.