

Overview



- 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 PROFIenergy, 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 through second SD card (automatic backup)
- 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
- Wide range of communication options: PROFIBUS and PROFINET onboard; 2 x PROFINET with integrated switch for 7" models or larger; plus 1 x PROFINET with Gigabit support for 15" models or larger
- 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 15" Comfort Outdoor version will be available soon.
For further information, please go to:

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

Operator panels

SIMATIC HMI Comfort Panels

SIMATIC HMI Comfort Panels – Standard

Technical specifications

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
Product type designation				
Display				
Design of display	TFT	TFT	TFT	TFT
Screen diagonal	4.3 in	7 in	9 in	12.1 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)				
• Horizontal image resolution	480 Pixel	800 Pixel	800 Pixel	1 280 Pixel
• Vertical image resolution	272 Pixel	480 Pixel	480 Pixel	800 Pixel
Backlighting				
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h	80 000 h
• Backlight dimmable	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %	Yes; 0-100 %
Control elements				
Keyboard				
• Function keys				
- Number of function keys	4	0	0	0
Touch operation				
• Design as touch screen	Yes	Yes	Yes	Yes
Installation type/mounting				
Mounting in portrait format possible	Yes	Yes	Yes	Yes
Supply voltage				
Type of supply voltage	DC	DC	DC	DC
Rated value (DC)	24 V	24 V	24 V	24 V
Memory				
usable memory for user data	4 Mbyte	12 Mbyte	12 Mbyte	12 Mbyte
Type of output				
Acoustics				
• Speaker	No	Yes	Yes	Yes
Time of day				
Clock				
• Hardware clock (real-time clock)	Yes	Yes	Yes	Yes
• battery-backed	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
Interfaces				
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
Number of USB interfaces	1; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0
Number of USB Mini B interfaces	1; 5-pole	1; 5-pole	1; 5-pole	1; 5-pole
Number of SD card slots	2	2	2	2
Industrial Ethernet				
• Number of industrial Ethernet interfaces	1	2	2	2
• Number of ports of the integrated switch	1	2	2	2
Protocols				
PROFINET	Yes	Yes	Yes	Yes
IRT	No	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12
MRP	No	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12
PROFIBUS	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes
Degree and class of protection				
IP (at the front)	IP65	IP65	IP65	IP65
Enclosure Type 4x at the front	Yes	Yes	Yes	Yes
IP (rear)	IP20	IP20	IP20	IP20
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes

Technical specifications (continued)

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Marine approval				
• Germanischer Lloyd (GL)	Yes	Yes	Yes	Yes; As of product version: 10
• American Bureau of Shipping (ABS)	Yes	Yes	Yes	Yes; As of product version: 10
• Bureau Veritas (BV)	Yes	Yes	Yes	Yes; As of product version: 10
• Det Norske Veritas (DNV)	Yes	Yes	Yes	Yes; As of product version: 10
• Lloyds Register of Shipping (LRS)	Yes	Yes	Yes	Yes; As of product version: 10
• Nippon Kaiji Kyokai (Class NK)	Yes	Yes	Yes	Yes; As of product version: 10
• Polski Rejestr Statkow (PRS)	No	No	No	No
Use in hazardous areas				
• ATEX Zone 2	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes
• FM Class I Division 2	Yes	Yes	Yes	Yes
Ambient conditions				
Ambient temperature during operation				
• Operation (vertical installation)				
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C; (55 °C, see entry ID:64847814)	50 °C; (55 °C, see entry ID:64847814)	50 °C; (55 °C, see entry ID:64847814)
Relative humidity				
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation
Configuration				
Configuration software				
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; from V11	Yes; from V11	Yes; from V11
Languages				
Online languages				
• Number of online/runtime languages	32	32	32	32
Functionality under WinCC (TIA Portal)				
Applications/options				
• Web browser	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes
Task planner				
• time-controlled	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes
Message system				
• Bit messages				
- Number of bit messages	2 000	4 000	4 000	4 000
• Analog messages				
- Number of analog messages	50	200	200	200
• Message buffer				
- Number of entries	256	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes
Recipe administration				
• Number of recipes	100	300	300	300
• Size of internal recipe memory	512 kbyte	2 Mbyte	2 Mbyte	2 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes

Operator panels

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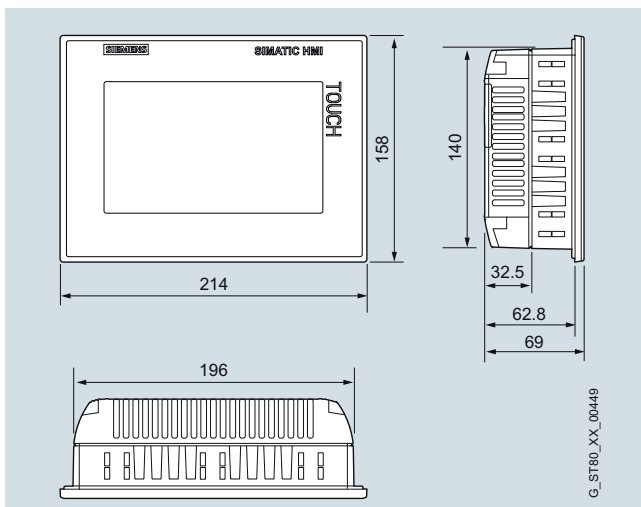
Technical specifications (continued)

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Variables				
• Number of variables per device	1 024	2 048	2 048	2 048
• Number of variables per screen	50	400	400	400
Images				
• Number of configurable images	500	500	500	500
Archiving				
• Number of archives per device	10	50	50	50
Security				
• Number of user groups	50	50	50	50
• Number of users	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes
Logging through printer				
• Alarms	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; pdf, html	Yes; pdf, html	Yes; pdf, html	Yes; pdf, html
Transfer (upload/download)				
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes
• USB	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes
Process coupling				
• S7-1200	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes
Peripherals/Options				
Peripherals				
• Printer	Yes	Yes	Yes	Yes
• MultiMediaCard	Yes	Yes	Yes	Yes
• SD card	Yes	Yes	Yes	Yes
• USB memory	Yes	Yes	Yes	Yes
• Network camera	Yes	Yes	Yes	Yes
Mechanics/material				
Type of housing (front)				
• plastic	Yes	No	No	No
• aluminum	No	Yes	Yes	Yes
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				
Without packaging	0.6 kg	1.4 kg	1.9 kg	2.8 kg

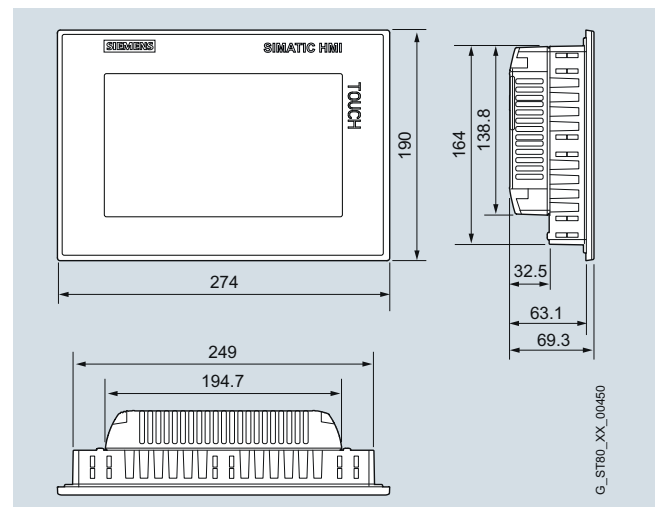
Ordering data	Article No.	Article No.	
SIMATIC HMI Comfort Panels			
Key and touch devices			
SIMATIC HMI KTP400 Comfort Key/touch-screen operation; 4" widescreen display	6AV2124-2DC01-0AX0	Starter kits for SIMATIC HMI Comfort Panels Consisting of: the respective SIMATIC HMI Comfort Panel, SIMATIC WinCC 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 SIMATIC HMI accessories, Chap. 7	
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	6AV2124-0QC02-0AX0		
SIMATIC HMI TP1900 Comfort Touch-screen operation; 19" widescreen display	6AV2124-0UC02-0AX0		
SIMATIC HMI TP2200 Comfort Touch-screen operation; 22" widescreen display	6AV2124-0XC02-0AX0		
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	6AV2124-1QC02-0AX0		

Dimensional drawings

All dimensions in mm. For installation cutout, see technical specifications.



TP700 Comfort



TP900 Comfort