Siemens 6AV2124-1GC01-0AX0

KP700 Comfort Panel

Siemens 6AV2124-1GC01-0AX0 is the SIMATIC HMI KP700 Comfort with a 7-inch widescreen TFT display and 24 illuminated function keys.



Technical Specifications

Product Identity	
Manufacturer	Siemens
Complete order number	6AV2124-1GC01-0AX0
Product type	SIMATIC HMI KP700 Comfort
Front material	Aluminum
Housing front (W × H)	308 × 204 mm
Mounting cutout (W × H)	282 × 178 mm
Mounting depth	63 mm
Functional Configuration	
Operation	Key operation; 24 function keys with LEDs; no touchscreen
Display	7-inch TFT; 800 × 480 pixels; 16,777,216 colors
Industrial Ethernet	1 interface with integrated 2-port switch; PROFINET
Serial interface	1 combined RS422/RS485; MPI/PROFIBUS DP; no RS232
USB / memory slots	2 USB 2.0 interfaces; 1 USB Mini-B (5-pole); 2 SD-card slots
Configuration software	WinCC Comfort / Advanced / Professional in TIA Portal from V11
Operating system	Windows CE 6.0
Performance & Power	
Processor	x86
User-data memory	12 MB
Rated supply	24 V DC; permissible range 19.2–28.8 V DC
Rated current	0.5 A
Typical power input	12 W
Individual project limits	2,048 tags; 500 screens; 300 recipes; simultaneous maximum use is not assured
Environment	
Protection	IP65 front; IP20 rear, with specified mounting and sealing conditions
Mounting orientation	Landscape; vertical installation; portrait mounting not permitted
Operating ambient temperature	0–50 °C at vertical landscape mounting; observe derating at inclined mounting
Storage / transport temperature	–20 to +60 °C

Selected original manufacturer pages follow on pages 3–6.

Compatibility & Selection Guide

Software and system compatibility. Siemens specifies 6AV2124-1GC01-0AX0 for WinCC Comfort, WinCC Advanced or WinCC Professional in TIA Portal from V11; WinCC Basic is not the listed configuration tool. Windows CE 6.0 is the documented operating system. Supported controller connections include SIMATIC S7-1200, S7-1500, S7-200, S7-300/400, LOGO! and WinAC, subject to the configured driver and project. The documented individual limits include 2,048 tags, 500 screens and 300 recipes; these maxima do not guarantee simultaneous use at every limit. Check the installed panel image and engineering-project version when selecting a replacement.

Wiring & Installation Reference

Power and communication connections

X80. 24 V DC · Supply within 19.2–28.8 V DC; verify polarity

Functional ground. Bonding connection · Connect to the equipotential bonding system

X1. PROFINET LAN · 10/100 Mbit/s; two integrated switch ports

X2. PROFIBUS Sub-D · Combined RS422/RS485 interface

X61 / X62. USB type A · Supported peripheral devices

X60. USB Mini-B · Configuration PC connection

Panel mounting

Check the enclosure and seal.. Use the 282 × 178 mm cutout, confirm rear clearance and fit the panel in landscape orientation. Do not install a damaged or protruding seal.

Fit every required mounting clip.. Use all 12 aluminum mounting clips at the marked positions; tighten the screws to 0.5 N·m as specified for 7–22-inch models.

Verify fit and cable support.. Check the mounting seal after tightening, provide cable strain relief and maintain the installation clearances and temperature limits in the manual.

Installation precautions. Use a safely isolated SELV/PELV supply. Switch off the supply and unplug the power connector before terminating its conductors; tighten its terminal screws to 0.5–0.6 N·m. For Comfort V1/V1.1 devices, Siemens requires external protective wiring for 24 V DC operation. Follow the lightning and overvoltage protection guidance referenced in the operating instructions, page 49. Cable shields are not equipotential bonding conductors. The manual specifies at least 4 mm² between the HMI and ground bar. Use shielded standard data cables and follow local protective-wiring requirements.

View connection reference (PDF) · PDF page 2 | View dimensional reference · PDF page 6

Manufacturer sources: Siemens 6AV2124-1GC01-0AX0 Data sheet / Comfort Panels Operating Instructions.

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Data sheet 6AV2124-1GC01-0AX0

SIMATIC HMI KP700 Comfort, Comfort Panel, key operation, 7" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, configurable from WinCC Comfort V11



General information	
Product type designation	KP700 Comfort
Display	
Design of display	TFT
Screen diagonal	7 in
Display width	152.4 mm
Display height	91.4 mm
Number of colors	16 777 216
Resolution (pixels)	
● Horizontal image resolution	800 pixel
● Vertical image resolution	480 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	80 000 h
● Backlight dimmable	Yes; 0-100 %
Control elements	
Keyboard	
● Function keys	
— Number of function keys	24
— Number of function keys with LEDs	24
● Keys with LED	Yes
● System keys	Yes
● Numeric keyboard	Yes
● alphanumeric keyboard	Yes; similar to mobile phone
Touch operation	
● Design as touch screen	No; without
Expansions for operator control of the process	
● DP direct LEDs (LEDs as S7 output I/O)	
— F1...Fx	24
● Direct keys (keys as S7 input I/O)	
— F1...Fx	24
● Direct keys (touch buttons as S7 input I/O)	0
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	

Subject to change without notice
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Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	0.5 A
Starting current inrush I²t	0.5 A²·s
Power	
Active power input, typ.	12 W
Processor	
Processor type	X86
Storage	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	Yes
Power LED	No
Error LED	No
Acoustics	
● Buzzer	No
● Speaker	Yes
Time of day	
Clock	
● Hardware clock (real-time)	Yes
● Software clock	Yes
● retentive	Yes; Back-up duration typically 6 weeks
● synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	1
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
● USB Mini B	1; 5-pole
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	
● Industrial Ethernet status LED	2
● Number of ports of the integrated switch	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes; As of WinCC V12
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
● TCP/IP	Yes
● DHCP	Yes
● SNMP	Yes
● DCP	Yes
● LLDP	Yes
WEB characteristics	
● HTTP	Yes
● HTTPS	Yes

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— At maximum tilt angle, max.	35 °C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C
Relative humidity	
● Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	
● Windows CE	Yes
Configuration	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
Configuration software	
● STEP 7 Basic (TIA Portal)	No
● STEP 7 Professional (TIA Portal)	No
● WinCC flexible Compact	No
● WinCC flexible Standard	No
● WinCC flexible Advanced	No
● WinCC Basic (TIA Portal)	No
● WinCC Comfort (TIA Portal)	Yes; from V11
● WinCC Advanced (TIA Portal)	Yes; from V11
● WinCC Professional (TIA Portal)	Yes; from V11
Languages	
Online languages	
● Number of online/runtime languages	32
Project languages	
● Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	
● Web browser	Yes
● Pocket Word	Yes
● Pocket Excel	Yes
● PDF Viewer	Yes
● Media Player	Yes
● SIMATIC WinCC Sm@rtServer	Yes
● SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
● time-controlled	Yes
● task-controlled	Yes
Help system	
● Number of characters per info text	70
Message system	
● Number of alarm classes	32
● Bit messages	Yes
— Number of bit messages	4 000
● Analog messages	Yes
— Number of analog messages	200
● S7 alarm number procedure	Yes
● System messages HMI	Yes
● System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...)	Yes
● Number of characters per message	80
● Number of process values per message	8

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● Backup/Restore manually	Yes
● Backup/Restore automatically	Yes
● Simulation	Yes
● Device switchover	Yes
Peripherals/Options	
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	
● Plastic	No
● Aluminum	Yes
● Stainless steel	No
Dimensions	
Width of the housing front	308 mm
Height of housing front	204 mm
Mounting cutout, width	282 mm
Mounting cutout, height	178 mm
mounting depth	63 mm
Weights	
Weight (without packaging)	2.2 kg
Weight (with packaging)	2.8 kg

Classifications

	Version	Classification
eClass	16	27-33-02-01
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	10	EC001412
ETIM	9	EC001412
ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval



Miscellaneous



Manufacturer Declaration





General Product Approval	EMV	For use in hazardous locations

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