Siemens 6AV2124-0GC01-0AX0

TP700 Comfort Panel

Siemens 6AV2124-0GC01-0AX0 is the SIMATIC HMI TP700 Comfort touch-operated panel for machine-level operator control and monitoring. It brings process values, alarms and recipe handling to a 7-inch widescreen interface, with both PROFINET and MPI/PROFIBUS DP communication for the configured control system.



Technical Specifications

Product Identity	
Manufacturer	Siemens
Complete order number	6AV2124-0GC01-0AX0
Product type	TP700 Comfort touch HMI panel
Housing front (W × H)	214 × 158 mm
Mounting cutout (W × H)	198 × 142 mm
Mounting depth	63 mm
Functional Configuration	
Display	7-inch widescreen TFT; 800 × 480 pixels; 16,777,216 colors
Operator input	Analog-resistive touchscreen; no physical function keys
Industrial Ethernet	1 Industrial Ethernet interface with 2 switched ports
Serial interface	1 combined RS422/RS485 interface; MPI/PROFIBUS DP
USB / card slots	2 USB 2.0 interfaces; 2 SD card slots
Operating system	Windows CE 6.0
Engineering software	WinCC Comfort / Advanced / Professional from V11
Performance & Power	
Processor / user memory	X86 / 12 MB
Rated supply / permitted range	24 V DC / 19.2–28.8 V DC
Rated current / typical power	0.5 A / 12 W
Project capacity	2,048 variables; 500 screens; 300 recipes
Environment	
Protection	Front IP65; rear IP20
Operating temperature	0–50 °C, vertical landscape mounting; lower limits apply to tilt/portrait operation

Selected original manufacturer pages follow on pages 3–5.

Compatibility & Selection Guide

Software and system compatibility. The 6AV2124-0GC01-0AX0 runs Windows CE 6.0 and is configured with WinCC Comfort, Advanced or Professional in TIA Portal from V11. The data sheet lists SIMATIC S7-1200, S7-1500, S7-200 and S7-300/400 connections, together with other supported drivers. Project limits include 2,048 variables, 500 configurable screens and 300 recipes. Match the installed panel order number, device image, engineering version and controller driver before transferring a replacement project.

Wiring & Installation Reference

Power and communication

DC24V X80. Pin 1: +24 V DC; pin 2: Ground · 19.2–28.8 V DC; SELV/PELV

PROFINET / Industrial Ethernet. 2 physical ports · Use the configured network and shielded cable

MPI/PROFIBUS DP. Combined RS422/RS485 interface · Match the configured driver and bus wiring

Panel mounting

Prepare the enclosure.. Use the current data-sheet cutout of 198 × 142 mm and allow 63 mm mounting depth. The support surface must be rigid, clean and flat.

Keep ventilation clear.. Allow at least 15 mm at each side of the cutout, 50 mm above and below, and 10 mm behind the rear panel.

Secure the panel.. Fit an undamaged seal and install the specified 10 aluminum mounting clips in the stamped positions. Tighten the clip screws to 0.5 Nm. Use 2–6 mm panel thickness for the stated front protection.

Connect and commission.. Establish functional ground and equipotential bonding, then connect the isolated 24 V DC supply and configured data network. Verify device image and project settings before operation.

Installation precautions. Use only a safely isolated SELV/PELV 24 V DC power supply within the specified voltage range. Switch off power and wire the removable connector while it is unplugged; observe polarity. Tighten the power-connector screws to 0.5–0.6 Nm. Use shielded data cables and suitable equipotential bonding; cable shields do not replace bonding conductors. Secure cables against strain. Follow the complete Siemens operating instructions and any conditions on the actual unit rating plate. For Comfort V1/V1.1 devices, Siemens requires an external protective circuit for 24 V DC operation; use the referenced lightning and overvoltage protection guidance.

View connection reference (PDF) · PDF page 2 | View dimensions reference (PDF) · PDF page 5

Manufacturer sources: Siemens 6AV2124-0GC01-0AX0 data sheet / Comfort Panels Operating Instructions, 07/2022, A5E36770603-AE / Comfort Panels Operating Instructions, 07/2022, A5E36770603-AE — applicable order-code table.

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Data sheet 6AV2124-0GC01-0AX0



SIMATIC HMI TP700 Comfort, Comfort Panel, touch 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	TP700 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	0
— Number of function keys with LEDs	0
● Keys with LED	No
● System keys	No
● Numeric keyboard	Yes; Onscreen keyboard
● alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
● Design as touch screen	Yes; Analog-resistive
Expansions for operator control of the process	
● DP direct LEDs (LEDs as S7 output I/O)	
— F1...Fx	0
● Direct keys (keys as S7 input I/O)	
— F1...Fx	0
● Direct keys (touch buttons as S7 input I/O)	32
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	

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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	No
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	0; together with RS 485
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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● OPC UA Server	Yes
Service tools/configuration aids	
● 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	214 mm
Height of housing front	158 mm
Mounting cutout, width	198 mm
Mounting cutout, height	142 mm
mounting depth	63 mm
Weights	
Weight (without packaging)	1.4 kg
Weight (with packaging)	1.6 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

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