# SIEMENS

## Data sheet        6AG1124-0GC01-4AX0

SIPLUS HMI TP700 COMFORT FOR medial stress with conformal coating based on 6AV2124-0GC01-0AX0



Figure similar

| 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 fonts | |

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| | |
|---|---|
| • 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 |

| 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 | |
|---|---|
| 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 |

| Memory | |
|---|---|
| Flash | Yes |
| RAM | Yes |
| Memory available for user data | 12 Mbyte |

| Type of output | |
|---|---|
| Info LED | No |

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| | |
|---|---|
| Power LED | No |
| Error LED | No |
| Acoustics | |
| • Buzzer | No |
| • Speaker | Yes |

## Time of day

### Clock

| | |
|---|---|
| • Hardware clock (real-time) | Yes |
| • Software clock | No |
| • retentive | Yes; Back-up duration typically 6 weeks |
| • synchronizable | Yes |

## Interfaces

| | |
|---|---|
| Number of industrial Ethernet interfaces | 2 |
| 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 other 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 |
| MPI | Yes |

### Protocols (Ethernet)

| | |
|---|---|
| • TCP/IP | Yes |
| • DHCP | Yes |
| • SNMP | Yes |
| • DCP | Yes |
| • LLDP | Yes |

### WEB characteristics

| | |
|---|---|
| • HTTP | Yes |
| • HTTPS | No |

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| | |
|---|---|
| • HTML | Yes |
| • XML | No |
| • CSS | Yes |
| • Active X | No |
| • JavaScript | Yes |
| • Java VM | No |
| **Redundancy mode** | |
| Media redundancy | |
| — MRP | Yes; As of WinCC V12 |
| **Further protocols** | |
| • CAN | No |
| • EtherNet/IP | Yes |
| • MODBUS | Yes |

## Interrupts/diagnostics/status information

| | |
|---|---|
| Diagnoses | |
| • Diagnostic information readable | Yes; S7 controller |

## EMC

| | |
|---|---|
| Emission of radio interference acc. to EN 55 011 | |
| • Limit class A, for use in industrial areas | Yes |
| • Limit class B, for use in residential areas | No |

## Degree and class of protection

| | |
|---|---|
| IP (at the front) | IP65 |
| IP (rear) | IP20 |
| NEMA (front) | |
| • Enclosure Type 4 at the front | Yes |
| • Enclosure Type 4x at the front | Yes |

## Ambient conditions

| | |
|---|---|
| Suited for indoor use | Yes |
| Suited for outdoor use | No |
| Ambient temperature during operation | |
| • Operation (vertical installation) | |
| — For vertical installation, min. | 0 °C; = Tmin |
| — For vertical installation, max. | 50 °C; = Tmax |
| • Operation (max. tilt angle) | |
| — At maximum tilt angle, min. | 0 °C; = Tmin |
| — At maximum tilt angle, min. | 40 °C; = Tmax |
| • Operation (vertical installation, portrait format) | |
| — For vertical installation, min. | 0 °C; = Tmin |
| — For vertical installation, max. | 40 °C; = Tmax |
| • Operation (max. tilt angle, portrait format) | |

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| | |
|---|---|
| — At maximum tilt angle, min. | 0 °C; = Tmin |
| — At maximum tilt angle, min. | 35 °C; = Tmax |
| **Ambient temperature during storage/transportation** | |
| • min. | -20 °C |
| • max. | 60 °C |
| **Altitude during operation relating to sea level** | |
| • Installation altitude above sea level, max. | 5 000 m |
| • Ambient air temperature-barometric pressure-altitude | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m) |
| **Relative humidity** | |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions) |
| **Resistance** | |
| **Coolants and lubricants** | |
| — Resistant to commercially available coolants and lubricants | Yes; Incl. diesel and oil droplets in the air |
| **Use in stationary industrial systems** | |
| — to biologically active substances according to EN 60721-3-3 | Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request |
| — to chemically active substances according to EN 60721-3-3 | Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * |
| — to mechanically active substances according to EN 60721-3-3 | Yes; Class 3S4 incl. sand, dust, * |
| **Use on ships/at sea** | |
| — to biologically active substances according to EN 60721-3-6 | Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request |
| — to chemically active substances according to EN 60721-3-6 | Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * |
| — to mechanically active substances according to EN 60721-3-6 | Yes; Class 6S3 incl. sand, dust; * |
| **Usage in industrial process technology** | |
| — Against chemically active substances acc. to EN 60654-4 | Yes; Class 3 (excluding trichlorethylene) |
| — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 | Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) |
| **Remark** | |
| — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 | * The supplied plug covers must remain in place over the unused interfaces during operation! |
| **Conformal coating** | |
| • Coatings for printed circuit board assemblies acc. to EN 61086 | Yes; Class 2 for high reliability |

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|---|---|
| • Protection against fouling acc. to EN 60664-3 | Yes; Type 1 protection |
| • Military testing according to MIL-I-46058C, Amendment 7 | Yes; Discoloration of coating possible during service life |
| • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A |

## 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 |

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| | |
|---|---|
| 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 | |
| — Number of bit messages | 4 000 |
| • Analog messages | |
| — Number of analog messages | 200 |
| • S7 alarm number procedure | Yes |
| • System messages HMI | Yes |
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes |
| • Number of characters per message | 80 |
| • Number of process values per message | 8 |
| • Acknowledgment groups | Yes |
| • Message indicator | Yes |
| • Message buffer | |
| — Number of entries | 1 024 |
| — Circulating buffer | Yes |
| — retentive | Yes |
| — maintenance-free | Yes |
| **Recipe management** | |
| • Number of recipes | 300 |
| • Data records per recipe | 500 |
| • Entries per data record | 1 000 |
| • Size of internal recipe memory | 2 Mbyte |
| • Recipe memory expandable | Yes |
| **Variables** | |
| • Number of variables per device | 2 048 |
| • Number of variables per screen | 400 |
| • Limit values | Yes |
| • Multiplexing | Yes |
| • Structures | Yes |
| • Arrays | Yes |
| **Images** | |
| • Number of configurable images | 500 |
| • Permanent window/default | Yes |
| • Global image | Yes |

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| | |
|---|---|
| • Image selection by PLC | Yes |
| • Image number in the PLC | Yes |
| **Image objects** | |
| • Number of objects per image | 400 |
| • Text fields | Yes |
| • I/O fields | Yes |
| • Graphic I/O fields (graphics list) | Yes |
| • Symbolic I/O fields (text list) | Yes |
| • Date/time fields | Yes |
| • Switches | Yes |
| • Buttons | Yes |
| • Graphic display | Yes |
| • Icons | Yes |
| • Geometric objects | Yes |
| **Complex image objects** | |
| • Number of complex objects per screen | 20 |
| • Alarm view | Yes |
| • Trend view | Yes |
| • User view | Yes |
| • Status/control | Yes |
| • Sm@rtClient view | Yes |
| • Recipe view | Yes |
| • f(x) trend view | Yes |
| • System diagnostics view | Yes |
| • Media Player | Yes |
| • Bar graphs | Yes |
| • Sliders | Yes |
| • Pointer instruments | Yes |
| • Analog/digital clock | Yes |
| **Lists** | |
| • Number of text lists per project | 500 |
| • Number of entries per text list | 500 |
| • Number of graphics lists per project | 500 |
| • Number of entries per graphics list | 500 |
| **Archiving** | |
| • Number of archives per device | 50 |
| • Number of entries per archive | 20 000 |
| • Message archive | Yes |
| • Process value archive | Yes |
| • Archiving methods | |
|   — Sequential archive | Yes |

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| | |
|---|---|
| — Short-term archive | Yes |
| • Memory location | |
| — Memory card | Yes |
| — USB memory | Yes |
| — Ethernet | Yes |
| • Data storage format | |
| — CSV | Yes |
| — TXT | Yes |
| — RDB | Yes |

| Security | |
|---|---|
| • Number of user groups | 50 |
| • Number of user rights | 32 |
| • Number of users | 50 |
| • Password export/import | Yes |
| • SIMATIC Logon | Yes |

| Logging through printer | |
|---|---|
| • Alarms | Yes |
| • Report (shift log) | Yes |
| • Hardcopy | Yes |
| • Electronic print to file | Yes; PDF, HTML |

| Character sets | |
|---|---|
| • Keyboard fonts | |
| — US English | Yes |

| Transfer (upload/download) | |
|---|---|
| • MPI/PROFIBUS DP | Yes |
| • USB | Yes |
| • Ethernet | Yes |
| • using external storage medium | No |

| Process coupling | |
|---|---|
| • S7-1200 | Yes |
| • S7-1500 | Yes |
| • S7-200 | Yes |
| • S7-300/400 | Yes |
| • LOGO! | Yes |
| • WinAC | Yes |
| • SINUMERIK | Yes; with SINUMERIK option package |
| • SIMOTION | No; With WinCC, subsequent version |
| • Allen Bradley (EtherNet/IP) | Yes |
| • Allen Bradley (DF1) | Yes |
| • Mitsubishi (MC TCP/IP) | Yes |
| • Mitsubishi (FX) | Yes |

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| | |
|---|---|
| • OMRON (FINS TCP) | No |
| • OMRON (LINK/Multilink) | Yes |
| • Modicon (Modbus TCP/IP) | Yes |
| • Modicon (Modbus) | 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 |
| SIMATIC HMI SD memory card: Secure Digital memory card | Yes |
| USB memory | 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 | 197 mm |
| Mounting cutout, height | 141 mm |
| Overall depth | 63 mm |

| **Weights** | |
|---|---|
| Weight without packaging | 1.4 kg |
| Weight incl. packaging | 1.6 kg |

| **last modified:** | 10/09/2020 |
|---|---|

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