SIEMENS

Data sheet

6AV2124-0QC24-0AX0

SIMATIC HMI TP1500 Comfort Pro, for support arm (not expandable, flange on top), Comfort Panel, touch operation, 15" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP



General information	
Product type designation	TP1500 Comfort PRO
Display	
Design of display	TFT
Screen diagonal	15.6 in
Display width	344.2 mm
Display height	193.5 mm
Number of colors	16 777 216
Resolution (pixels)	
 Horizontal image resolution 	1 366 pixel
Vertical image resolution	768 pixel
Backlighting	
 MTBF backlighting (at 25 °C) 	50 000 h
Backlight dimmable	Yes; 0-100 %
Control elements	
Keyboard fonts	
 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; Projective-capacitive
Expansions for operator control of the process	
 Direct keys (touch buttons as S7 input I/O) 	40
Installation type/mounting	
Mounting	Support arm
Mounting position	vertical
Mounting in portrait format possible	No
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)	1.5 A
Starting current inrush I ² t	0.5 A ² ·s
Power	0.5 A 'S
	20.111
Active power input, typ.	36 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	24 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	2; 2 ports (switch) + independent port
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
Number of other interfaces	0
Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	
 Industrial Ethernet status LED 	3
 Number of ports of the integrated switch 	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
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
• HTML	Yes
• XML	Yes
• CSS	Yes
Active X	Yes
JavaScript	Yes
• Java VM	No
Redundancy mode	
Media redundancy	

— MRP	Yes
Further protocols	
• CAN	No
• 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)	IP65
NEMA (front)	
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	No; Available soon
EAC (formerly Gost-R)	No; Available soon
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0°0
— For vertical installation, max.	45 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0°0
— At maximum tilt angle, max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	00 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	
Windows CE	Yes; Windows Embedded Compact 2013
configuration / header	
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	No
 STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) 	No
WinCC flexible Compact	No
Winder lexible compact Winder lexible Standard	No
Wind C flexible Standard Wind C flexible Advanced	No
WinCo liexible Advanced WinCo liexible Advanced WinCo liexible Advanced	No
WinCo Dasic (TA Portal) WinCo Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
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
Message system	
Number of alarm classes	32
• Bit messages	
— Number of bit messages	6 000
Analog messages	
— Number of analog messages	200
• S7 alarm number procedure	Yes
System messages HMI	Yes
• System event, more (SIMATIC S7, SINUMERIK,	Yes
SIMOTION,)	
 Number of characters per message 	80
 Number of process values per message 	8
 Acknowledgment groups 	Yes
Message indicator	Yes
Recipe management	
 Number of recipes 	500
 Data records per recipe 	1 000
 Entries per data record 	2 000
 Size of internal recipe memory 	4 Mbyte
Recipe memory expandable	Yes
Variables	
 Number of variables per device 	4 096
 Number of variables per screen 	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
Arrays	Yes
Images	
 Number of configurable images 	750
 Permanent window/default 	Yes
Global image	Yes
 Pop-up images 	Yes
Slide-in images	Yes
 Image selection by PLC 	Yes
Image number in the PLC	Yes
Image objects	
Number of objects per image	600
• 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	40
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
HTML browser	Yes
PDF display	Yes
 IP camera display 	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	50
Number of archives per device	
 Number of entries per archive Message archive 	50 000 Yes
Process value archive	Yes
Archiving methods	
- Sequential archive	Yes
— 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 	Yes
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 as from WinCC V15 or higher
SIMOTION	Yes
 Allen Bradley (EtherNet/IP) 	Yes
 Allen Bradley (DF1) 	Yes
 Mitsubishi (MC TCP/IP) 	Yes
 Mitsubishi (FX) 	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
 Modicon (Modbus TCP/IP) 	Yes
Modicon (Modbus)	Yes
OPC UA Client	Yes
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	396 mm
Height of housing front	256 mm; Without basic adapter
Overall depth	101 mm; Without basic adapter
Weights	
Weight (without packaging)	6.3 kg
last modified:	10/7/2021 🖸