SIEMENS

Data sheet

6AV2124-0MC24-1AX0

SIMATIC HMI TP1200 Comfort Pro for supporting foot (expandable, flange at bottom), Comfort Panel, touch operation, 12" Widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP



Product type designation TP1200 PRO Display TFT Design of display 12.1 in Display width 261.1 mm
Design of display TFT Screen diagonal 12.1 in Display width 261.1 mm
Screen diagonal 12.1 in Display width 261.1 mm
Display width 261.1 mm
Display beight 102.0 mm
Display height 163.2 mm
Number of colors 16 777 216
Resolution (pixels)
Horizontal image resolution 1 280 pixel
Vertical image resolution 800 pixel
Backlighting
MTBF backlighting (at 25 °C) 80 000 h
Backlight dimmable Yes; LED, dimmable
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 Pedestal
Mounting position vertical
Mounting in portrait format possible No
maximum permissible angle of inclination without external 35° ventilation
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

	1.5 A
Current consumption (rated value) Starting current inrush I ² t	0.5 A ² ·s
Power	0.5 A 3
	20.101
Active power input, typ.	36 W
Processor	
Processor type	X86
Memory	
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	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
	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	
in our i ou an au i og	

— 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 °C	
— For vertical installation, max.	45 °C	
Operation (max. tilt angle)	0.00	
— At maximum tilt angle, min.	0 °C 40 °C	
— At maximum tilt angle, max.	40 °C	
Ambient temperature during storage/transportation	-20 °C	
● min. ● max.	60 °C	
Relative humidity	00 C	
Operation, max.	90 %; no condensation	
Operating systems		
proprietary	No	
pro-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 display (output) 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; 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	32
Number of online/runtime languages Project languages	52
Languages per project	32
Functionality under WinCC (TIA Portal)	52
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	
 — Number of bit messages 	4 000
 Analog messages 	
 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
Acknowledgment groups	Yes
Message indicator	Yes
Message buffer	4 004
— Number of entries	1 024
— Circulating buffer	Yes
- retentive	Yes
— maintenance-free	Yes
Recipe management	200
Number of recipes	300
Data records per recipe Entries per data record	500
 Entries per data record Size of internal recipe memory 	1 000 2 Mbyte
Recipe memory expandable	2 Mbyte Yes
Variables	
Number of variables per device	2 048
Number of variables per device 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
Pop-up images	Yes
Slide-in images	Yes
Image selection by PLC	Yes
Image number in the PLC	Yes

Image objects	
Image objects	400
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
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
	500 500
Number of graphics lists per project	
 Number of graphics lists per project Number of entries per graphics list 	
 Number of graphics lists per project Number of entries per graphics list Archiving 	500
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device 	500 50
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive 	500 50 20 000
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive 	500 50 20 000 Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive 	500 50 20 000 Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods 	500 50 20 000 Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods — Sequential archive 	500 50 20 000 Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive 	500 50 20 000 Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location 	500 50 20 000 Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card 	500 50 20 000 Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory 	500 50 20 000 Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet 	500 50 20 000 Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV TXT 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB 	500 50 20 000 Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups Number of user rights Number of users 	500 50 20 000 Yes Yes <td< td=""></td<>
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups Number of user rights Number of users Password export/import 	500 50 20 000 Yes Yes <td< td=""></td<>
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups Number of user rights Number of users Password export/import SIMATIC Logon 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups Number of user rights Number of users Password export/import 	500 50 20 000 Yes Yes Yes Yes Yes Yes Yes Yes
 Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device Number of entries per archive Message archive Process value archive Archiving methods Sequential archive Short-term archive Memory location Memory location Memory card USB memory Ethernet Data storage format CSV TXT RDB Security Number of user groups Number of user rights Number of users Password export/import SIMATIC Logon 	500 50 20 000 Yes

Hardcopy	Yes
Electronic print to file	Yes; PDF, HTML
Character sets	
Keyboard fonts	
— US English	Yes
Transfer (upload/download)	100
MPI/PROFIBUS DP	Yes
• USB	Yes
• Ethernet	Yes
using external storage medium	Yes
Process coupling	
• \$7-1200	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	Yes; Up to 2 GB
card	
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	313 mm
Height of housing front	226 mm; Without basic adapter
Overall depth	101 mm; Without basic adapter
Weights	
Weight (without packaging)	4.9 kg
last modified:	10/7/2021 🖸