SIEMENS

Data sheet



SIMATIC HMI TP1200 Comfort, Comfort Panel, touch operation, 12" 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	TP1200 Comfort
Display	
Design of display	TFT
Screen diagonal	12.1 in
Display width	261.1 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; 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; Analog-resistive
Expansions for operator control of the process	
 DP direct LEDs (LEDs as S7 output I/O) 	
— F1Fx	0
 Direct keys (keys as S7 input I/O) 	
— F1Fx	0
Direct keys (touch buttons as S7 input I/O)	40
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, lower limit (DC)	28.8 V
Input current	20.0 V
	0.05.4
Current consumption (rated value)	0.85 A
Starting current inrush I²t	0.5 A²-s
Power	an W
Active power input, typ.	20 W
Processor	100
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	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 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
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; As of WinCC V12
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)	IP20
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	Yes
Ecological footprint	
 environmental product declaration 	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	301 kg
 global warming potential, (during production) [CO2 	81.2 kg
eq]	
 — global warming potential, (during operation) [CO2 eq] 	221 kg
— global warming potential, (after end of life cycle)	-2.25 kg
[CO2 eq]	
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
• IECEx Zone 2	Yes
• IECEx Zone 22	Yes
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes
FM Class I Division 2	Yes
Marine approval	
Germanischer Lloyd (GL)	Yes; As of product version: 10
 American Bureau of Shipping (ABS) 	Yes; As of product version: 10
Bureau Veritas (BV)	Yes; As of product version: 10
 Det Norske Veritas (DNV) 	Yes; As of product version: 10
 Lloyds Register of Shipping (LRS) 	Yes; As of product version: 10
 Nippon Kaiji Kyokai (Class NK) 	Yes; As of product version: 10
Polski Rejestr Statkow (PRS)	No
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. 	50 °C; (55 °C, see entry ID: 64847814)

Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min. — At maximum tilt angle, max.	40 °C
Operation (vertical installation, portrait format)	40 0
— For vertical installation, min.	0 °C
— For vertical installation, max.	40 °C
Operation (max. tilt angle, portrait format)	40 0
— At maximum tilt angle, min.	0 °C
At maximum tilt angle, min. At maximum tilt angle, max.	35 °C
Ambient temperature during storage/transportation	33 0
• min.	-20 °C
• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	50 78, 110 CONTROLLON
proprietary	No
pre-installed operating system	NO
Windows CE	Yes
configuration / header	100
	Von
Message indicator Alarm system (incl. buffer and acknowledgment)	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)	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
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

Overhans assessed LIMI	V
System messages HMI System messages HMI 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
Recipe management	166
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	166
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
Pop-up images	Yes
Slide-in images	Yes
Image selection by PLC	Yes
Image selection by 1 20 Image number in the PLC	Yes
Image objects	165
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	165
Number of complex objects per screen	20
Alarm view	Yes
Trend view Trend view	Yes
User view	Yes
Status/control	Yes
Status/control Sm@rtClient view	Yes
Recipe view	Yes
f(x) trend view	Yes
System diagnostics view	Yes
System diagnostics view Media Player	Yes
HTML browser	Yes
PDF display	Yes
	Yes
IP camera display Res graphs	
Bar graphs Sliders	Yes
	Yes
Pointer instruments Applica/digital clock	Yes
Analog/digital clock	Yes
Liete	
A Number of text lists per project	500
Number of text lists per project Number of entries per text list	500 500

Number of graphics lists per project	500
Number of graphics lists per project Number of entries per graphics list	500
Archiving	300
Number of archives per device	50
Number of entries per archive	20 000
Message archive	Yes
Process value archive	Yes
Archiving methods	165
-	Yes
— Sequential archive— Short-term archive	Yes
Memory location	165
•	Yes
— Memory card — USB memory	Yes
— Ethernet	Yes
	Tes
Data storage format — CSV	Yes
— TXT	Yes
— RDB	Yes
Security • Number of user groups	50
Number of user groups Number of user gights	50
Number of user rights Number of users	32
Number of users Password expert/import	50 Voc
Password export/import SIMATIC Logan	Yes Yes
SIMATIC Logon Logoing through printer.	res
Logging through printer	Yes
Alarms Depart (abiff log)	Yes
Report (shift log) Hardenny	Yes
Hardcopy The strong a print to file	
Electronic print to file Character sets	Yes; PDF, HTML
Keyboard fonts US English	Yes
— US English Transfer (upload/download)	Tes
MPI/PROFIBUS DP	Yes
• USB	Yes
• Ethernet	Yes
using external storage medium	Yes
Process coupling	Tes
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• \$7-200 • \$7-300/400	Yes
• \$7-300/400 • LOGO!	Yes
• WinAC	Yes
SINUMERIK	
SINUMERIK SIMOTION	Yes; with SINUMERIK option package Yes
	Yes
Allen Bradley (EtherNet/IP) Allen Bradley (DE1)	
Allen Bradley (DF1) Mitsubishi (MC TCP/ID)	Yes
Mitsubishi (MC TCP/IP) Mitsubishi (EY)	Yes
Mitsubishi (FX) OMPON (FINS TCP)	Yes
OMRON (FINS TCP) OMPON (LINK/Multilink)	No Voc
OMRON (LINK/Multilink) Medican (Medhus TCR/IP)	Yes
Modicon (Modbus TCP/IP) Modicon (Modbus)	Yes
Modicon (Modbus) ODC LIA Client	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	330 mm	
Height of housing front	241 mm	
Mounting cutout, width	310 mm	
Mounting cutout, height	221 mm	
Overall depth	64 mm	
Weights		
Weight (without packaging)	2.8 kg	
Weight (with packaging)	3.5 kg	

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