SIEMENS

Data sheet



SIMATIC HMI TP1500 Comfort, 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	
Display		
Design of display	TFT	
Screen diagonal	15.4 in	
Display width	331.2 mm	
Display height	207 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		
 Direct keys (touch buttons as S7 input I/O) 	40	
Installation type/mounting		
Mounting position	vertical	
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)	1.7 A
Starting current inrush I²t	0.5 A ² ·s
Power	
Active power input, typ.	41 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	
	Yes
Hardware clock (real-time) Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
	165
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
Number of RS 485 interfaces Number of RS 422 interfaces	1; RS 422 / 485 combined
	0; together with RS 485
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces Number of SD card slots	0 2
With software interfaces	No
	NO NO
Industrial Ethernet	2
Industrial Ethernet status LEDNumber of ports of the integrated switch	3 2
	2
Protocols	V.
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS Ethan Nation	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	Von
TCP/IP DHCP	Yes Yes
• SNMP	Yes
• DCP	Yes
LLDP WEB characteristics	Yes
HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• XML • CSS	Yes
Active X	Yes
Active X JavaScript	Yes
JavaScriptJava VM	No
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Redundancy mode	
Media redundancy	Vee
— MRP	Yes
Further protocols	No
CAN MODBUS	No Von
	Yes
Interrupts/diagnostics/status information	
Diagnoses	V 07 1 1
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
EAC (formerly Gost-R)	Yes
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; For inscription on device rating plate
• cULus Class II Division 2	No; Available soon
• FM Class I Division 2	Yes; For inscription on device rating plate
FM Class II Division 2 Marin a property II	No; Available soon
Marine approval	N.
Germanischer Lloyd (GL) Germanischer Lloyd (GL) Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS) Output Description: Outp	No
Bureau Veritas (BV) Pat Name Veritas (BN)	No No
Det Norske Veritas (DNV) Versen Register of Shinning (KRS)	No No
Korean Register of Shipping (KRS) Levels Register of Shipping (LRS)	No No
Lloyds Register of Shipping (LRS) Nippen Kejii Kuckej (Class NK)	No No
Nippon Kaiji Kyokai (Class NK) Polski Bojostr Statkow (PBS)	No No
Polski Rejestr Statkow (PRS) Chinese Classification Society (CCS)	No No
Chinese Classification Society (CCS) Ambient conditions	No
Ambient conditions	V
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	0 °C
For vertical installation, min.For vertical installation, max.	
	50 °C; (55 °C, see entry ID: 64847814)
Operation (max. tilt angle)	0.00
At maximum tilt angle, min. At maximum tilt angle, max	0 °C 40 °C
— At maximum tilt angle, max. Operation (vertical installation, portrait format)	40 6
	0 °C
For vertical installation, min.For vertical installation, max.	40 °C
Operation (max. tilt angle, portrait format)	TO C
Operation (max. tilt angle, portrait format)	

— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	140
Windows CE	Yes; Windows Embedded Compact 2013
configuration / header	1 SO, TIMBORIO EMBORIOGO COMPANI ESTO
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
	Yes
Recipe management Configuration software	160
STEP 7 Basic (TIA Portal)	No
STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Compact WinCC flexible Standard	No
Wince flexible Standard Wince flexible Advanced	No
WinCC flexible Advanced WinCC Basic (TIA Portal)	No
WinCC Basic (TIA Fortal) WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
Wincc Advanced (TIA Portal) WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
	res, vi4 or i nor and nigher
Languages	
Online languages	00
Number of online/runtime languages	32
Project languages	22
Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	V
Web browser	Yes
Pocket Word	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player MATION Windows Constitution	Yes
SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit	Yes
SIMATIC WinCC Audit Number of Visual Basic Soriets	Yes
Number of Visual Basic Scripts	Yes
Task planner	Vee
time-controlled took controlled	Yes
• task-controlled	Yes
Message system	22
Number of alarm classes Rit messages	32
Bit messages Number of hit messages	6,000
— Number of bit messages	6 000
Analog messages — Number of analog messages	200
Number of analog messages S7 glarm number procedure	
S7 alarm number procedure System massages HMI	Yes Yes
System messages HMI System event more (SIMATIC S7, SINI IMERIK	Yes
 System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	1 53
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	165
Number of variables per device	4 096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
• Arrays	Yes
Images	165
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 selection by TEC Image number in the PLC	Yes
Image number in the PLC	100
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
· - · - · · · · · · · · · · · · · · · ·	
	Yes
IP camera display	Yes Yes
IP camera displayBar graphs	Yes
IP camera displayBar graphsSlidersPointer instruments	Yes Yes
IP camera displayBar graphsSliders	Yes Yes Yes
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock 	Yes Yes Yes
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists 	Yes Yes Yes Yes
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list 	Yes Yes Yes Yes Yes Yes
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list Number of graphics lists per project 	Yes Yes Yes Yes Yes 500 500
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list 	Yes Yes Yes Yes Yes Yes 500 500
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list Number of graphics lists per project Number of entries per graphics list Archiving	Yes Yes Yes Yes Yes Yes 500 500
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list Number of graphics lists per project Number of entries per graphics list 	Yes Yes Yes Yes Yes You Soo Soo Soo Soo Soo
 IP camera display Bar graphs Sliders Pointer instruments Analog/digital clock Lists Number of text lists per project Number of entries per text list Number of graphics lists per project Number of entries per graphics list Archiving Number of archives per device 	Yes Yes Yes Yes Yes 500 500 500 500

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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	100
• \$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) Aller Bradley (PF4)	Yes
Allen Bradley (DF1) Mitaribishi (MC TCP/ID)	Yes
Mitsubishi (MC TCP/IP) Mitsubishi (FX)	Yes
Mitsubishi (FX) OMPON (FINA TOP)	Yes
OMRON (FINS TCP) OMBON (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 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	415 mm
Height of housing front	310 mm
Mounting cutout, width	396 mm
Mounting cutout, height	291 mm
Overall depth	75 mm
Weights	
Weight (without packaging)	4.4 kg

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