

SIMATIC HMI TP1500 Comfort Pro, for stand (expandable, flange at bottom), neutral front, Comfort Panel, touch operation, 15" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable as of 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
• 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 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 <sup>2</sup> t	0.5 A <sup>2</sup> ·s
Power	
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
<b>Time of day</b>	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
<b>Interfaces</b>	
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 SD card slots	2
With software interfaces	No
Industrial Ethernet	
• Industrial Ethernet status LED	3
• Number of ports of the integrated switch	2
<b>Protocols</b>	
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
<b>Interrupts/diagnostics/status information</b>	
Diagnoses	
• Diagnostic information readable	Yes; S7 controller
<b>EMC</b>	
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
<b>Degree and class of protection</b>	
IP (at the front)	IP65

IP (rear)	IP65
NEMA (front)	
• Enclosure Type 4 at the front	Yes
• Enclosure Type 4x at the front	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
<b>Ambient conditions</b>	
Suited for indoor use	Yes
Suited for outdoor use	No
<b>Ambient temperature during operation</b>	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	45 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	40 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %; no condensation
<b>Operating systems</b>	
proprietary	No
pre-installed operating system	
• Windows CE	Yes; Windows Embedded Compact 2013
<b>configuration / header</b>	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
<b>Configuration software</b>	
• 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
<b>Languages</b>	
Online languages	
• Number of online/runtime languages	32
Project languages	
• Languages per project	32
<b>Functionality under WinCC (TIA Portal)</b>	
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	320
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, SIMOTION, ... )	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	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
- Status/control
- Sm@rtClient view
- Recipe view
- f(x) trend view
- System diagnostics view
- Media Player
- HTML browser
- PDF display
- IP camera display
- Bar graphs
- Sliders
- Pointer instruments
- Analog/digital clock

Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes

#### 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

500  
500  
500  
500

#### 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

50  
50 000  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes

#### Security

- Number of user groups
- Number of user rights
- Number of users
- Password export/import
- SIMATIC Logon

50  
32  
50  
Yes  
Yes

#### Logging through printer

- Alarms
- Report (shift log)
- Hardcopy
- Electronic print to file

Yes  
Yes  
Yes  
Yes; PDF, HTML

#### Character sets

- Keyboard fonts
  - US English

Yes

#### Transfer (upload/download)

- MPI/PROFIBUS DP
- USB
- Ethernet
- using external storage medium

Yes  
Yes  
Yes  
Yes

#### Process coupling

- S7-1200
- S7-1500
- S7-200
- S7-300/400
- LOGO!
- WinAC

Yes  
Yes  
Yes  
Yes  
Yes  
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	
<b>Service tools/configuration aids</b>		
• Backup/Restore manually	Yes	
• Backup/Restore automatically	Yes	
• Simulation	Yes	
• Device switchover	Yes	
<b>Peripherals/Options</b>		
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	
<b>Mechanics/material</b>		
Enclosure material (front)		
• Plastic	No	
• Aluminum	Yes	
• Stainless steel	No	
<b>Dimensions</b>		
Width of the housing front	396 mm	
Height of housing front	225.5 mm; Without basic adapter	
<b>Weights</b>		
Weight (without packaging)	6.3 kg	
<b>Classifications</b>		
	<b>Version</b>	<b>Classification</b>
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	10	EC001412
ETIM	9	EC001412
ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06
<b>Approvals / Certificates</b>		
<b>General Product Approval</b>		



[Miscellaneous](#)

[Manufacturer Declaration](#)



General Product Approval

EMV

[KC](#)



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