

SIMATIC HMI TP1500 COMFORT,  
COMFORT PANEL, TOUCH OPERATION,  
15" WIDESCREEN-TFT-DISPLAY,  
16 MIL. COLORS, PROFINET INTERFACE,  
MPI/PROFIBUS DP INTERFACE,  
24 MB USER MEMORY, WINDOWS CE 6.0,  
CONFIGURABLE FROM WINCC COMFORT V11 SP2



## Display

<b>Design of display</b>	TFT
<b>Screen diagonal</b>	15.4 in
<b>Display width</b>	331.2 mm
<b>Display height</b>	207 mm
<b>Number of colors</b>	16777216

## Resolution (pixels)

<b>Horizontal image resolution</b>	1280
<b>Vertical image resolution</b>	800

## Backlighting

<b>MTBF backlighting (at 25 °C)</b>	80000 h
<b>Dimmable backlight</b>	Yes ; 0-100 %

## Control elements

### Keyboard fonts

<b>Number of function keys</b>	0
<b>Keys with LED</b>	No
<b>System keys</b>	No
<b>Numeric/alphabetical input</b>	
<b>Numeric keyboard</b>	Yes

Alphanumeric keyboard	Yes
<b>Touch operation</b>	
Design as touch screen	Yes
<b>Expansions for operator control of the process</b>	
Direct keys (touch buttons as S7 input I/O)	40
<b>Installation type/mounting</b>	
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
<b>Supply voltage</b>	
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
<b>Input current</b>	
Current consumption (rated value)	1.5 A
Inrush current A <sup>2</sup> s	0.5 A <sup>2</sup> s
<b>Power</b>	
Power consumption, typ.	36 W
<b>Processor</b>	
Processor type	
X86	Yes
ARM	No
<b>Memory</b>	
Flash	Yes
RAM	Yes
Usable memory for user data	24 Mbyte
<b>Type of output</b>	
Info LED	No
Power LED	No
Error LED	No
<b>Acoustics</b>	
Buzzer	No
Speaker	Yes
<b>Time of day</b>	
<b>Clock</b>	
Hardware clock (real-time clock)	Yes
Software clock	No
Battery-backed	Yes ; Back-up duration typically 6 weeks

<b>Synchronizable</b>	Yes
<b>Interfaces</b>	
<b>Number of RS 485 interfaces</b>	1 ; RS 422/485 combined
<b>Number of USB interfaces</b>	2 ; USB 2.0
<b>Number of USB Mini B interfaces</b>	1 ; 5-pole
<b>Number of SD card slots</b>	2
<b>Number of parallel interfaces</b>	0
<b>Number of 20 mA interfaces (TTY)</b>	0
<b>Number of RS 232 interfaces</b>	0
<b>Number of RS 422 interfaces</b>	1
<b>Number of other interfaces</b>	0
<b>With software interfaces</b>	No
<b>Industrial Ethernet</b>	
<b>Number of industrial Ethernet interfaces</b>	3
<b>Industrial Ethernet status LED</b>	3
<b>Number of ports of the integrated switch</b>	2
<b>Protocols</b>	
<b>PROFINET</b>	Yes
<b>Supports protocol for PROFINET IO</b>	Yes
<b>IRT supported</b>	Yes ; As of WinCC V12
<b>MRP supported</b>	Yes
<b>PROFIBUS</b>	Yes
<b>MPI</b>	Yes
<b>Protocols (Ethernet)</b>	
<b>TCP/IP</b>	Yes
<b>DHCP</b>	Yes
<b>SNMP</b>	Yes
<b>DCP</b>	Yes
<b>LLDP</b>	Yes
<b>WEB characteristics</b>	
<b>HTTP</b>	Yes
<b>HTTPS</b>	Yes
<b>HTML</b>	Yes
<b>XML</b>	Yes
<b>CSS</b>	Yes
<b>Active X</b>	Yes
<b>JavaScript</b>	Yes
<b>Java VM</b>	No
<b>Further protocols</b>	

<b>CAN</b>	No
<b>MODBUS</b>	Yes
<b>Supports protocol for EtherNet/IP</b>	Yes
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostic messages</b>	
<b>Diagnostic information readable</b>	Yes ; S7 controller
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
<b>Emission of radio interferences acc. to EN 55 011 (limit class A)</b>	Yes
<b>Emission of radio interference acc. to EN 55 011 (limit class B)</b>	No
<b>Degree and class of protection</b>	
<b>IP (at the front)</b>	IP65
<b>Enclosure Type 4 at the front</b>	Yes
<b>Enclosure type 4x at the front</b>	Yes
<b>IP (rear)</b>	IP20
<b>Standards, approvals, certificates</b>	
<b>CE</b>	Yes
<b>KC approval</b>	Yes
<b>cULus</b>	Yes
<b>C-TICK</b>	Yes
<b>Marine approval</b>	
<b>GL</b>	No
<b>ABS</b>	No
<b>BV</b>	No
<b>DNV</b>	No
<b>LRS</b>	No
<b>Class NK</b>	No
<b>PRS</b>	No
<b>Use in hazardous areas</b>	
<b>ATEX Zone 2</b>	No
<b>ATEX Zone 22</b>	No
<b>cULus Class I Zone 1</b>	No
<b>cULus Class I Zone 2, Division 2</b>	Yes
<b>FM Class I Division 2</b>	Yes
<b>Ambient conditions</b>	
<b>Mounting position</b>	vertical

maximum permissible angle of inclination without external ventilation	35 °
<b>Operating temperature</b>	
<b>Operation (vertical installation)</b>	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	50 °C ; (55 °C, see entry ID:64847814)
<b>Operation (max. tilt angle)</b>	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	40 °C
<b>Operation (vertical installation, portrait format)</b>	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	40 °C
<b>Operation (max. tilt angle, portrait format)</b>	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	40 °C
<b>Storage/transport temperature</b>	
Min.	-20 °C
max.	60 °C
<b>Relative humidity</b>	
max. relative humidity	90 %
<b>Operating systems</b>	
Windows CE	Yes
proprietary	No
other	No
<b>Configuration</b>	
Message indicator	Yes
With alarm logging system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe administration	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 ; V11 SP2 or higher
WinCC Advanced (TIA Portal)	Yes ; V11 SP2 or higher

<b>WinCC Professional (TIA Portal)</b>	Yes ; V11 SP2 or higher
<b>Languages</b>	
<b>Online languages</b>	
<b>Number of online/runtime languages</b>	32
<b>Languages</b>	
<b>Languages per project</b>	32
<b>Languages</b>	
<b>D</b>	Yes
<b>GB</b>	Yes
<b>F</b>	Yes
<b>I</b>	Yes
<b>E</b>	Yes
<b>Chinese traditional</b>	Yes
<b>Chinese simplified</b>	Yes
<b>DK</b>	Yes
<b>FIN</b>	Yes
<b>GR</b>	Yes
<b>J</b>	Yes
<b>KP / ROK</b>	Yes
<b>NL</b>	Yes
<b>N</b>	Yes
<b>PL</b>	Yes
<b>P</b>	Yes
<b>RUS</b>	Yes
<b>S</b>	Yes
<b>CZ</b>	Yes
<b>SK</b>	Yes
<b>TR</b>	Yes
<b>H</b>	Yes
<b>Functionality under WinCC (TIA Portal)</b>	
<b>Libraries</b>	Yes
<b>Applications/options</b>	
<b>Internet Explorer</b>	Yes
<b>Pocket Word</b>	Yes
<b>Pocket Excel</b>	Yes
<b>PDF Viewer</b>	Yes
<b>Media Player</b>	Yes
<b>SIMATIC WinCC Sm@rtServer</b>	Yes
<b>SIMATIC WinCC Audit</b>	Yes

<b>Number of Visual Basic Scripts</b>	Yes
<b>Task planner</b>	
time-controlled	Yes
task-controlled	Yes
<b>Help system</b>	
Number of characters per info text	320
<b>Message system</b>	
Number of alarm classes	32
Number of bit messages	6000
Number of analog messages	200
S7 alarm number procedure	Yes
System messages HMI	Yes
System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	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	1024
Circulating buffer	Yes
retentive	Yes
maintenance-free	Yes
<b>Recipe administration</b>	
Number of recipes	500
Data records per recipe	1000
Entries per data record	2000
Size of internal recipe memory	4 Mbyte
Recipe memory expandable	Yes
<b>Variables</b>	
Number of variables per device	4096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structs	Yes
Arrays	Yes
<b>Images</b>	
Number of configurable images	750
Permanent window/default	Yes

<b>Global image</b>	Yes
<b>Start screen configurable</b>	Yes
<b>Image selection by PLC</b>	Yes
<b>Image number in the PLC</b>	Yes
<b>Image objects</b>	
<b>Number of objects per image</b>	600
<b>Text fields</b>	Yes
<b>I/O fields</b>	Yes
<b>Graphic I/O fields (graphics list)</b>	Yes
<b>Symbolic I/O fields (text list)</b>	Yes
<b>Date/time fields</b>	Yes
<b>Switches</b>	Yes
<b>Buttons</b>	Yes
<b>Graphic view</b>	Yes
<b>Icons</b>	Yes
<b>Geometric objects</b>	Yes
<b>Complex image objects</b>	
<b>Number of complex objects per screen</b>	40
<b>Alarm view</b>	Yes
<b>Trend view</b>	Yes
<b>User view</b>	Yes
<b>Status/control</b>	Yes
<b>Sm@rtClient view</b>	Yes
<b>Recipe view</b>	Yes
<b>f(x) trend view</b>	Yes
<b>System diagnostics view</b>	Yes
<b>Media Player</b>	Yes
<b>Bar graphs</b>	Yes
<b>Sliders</b>	Yes
<b>Pointer instruments</b>	Yes
<b>Analog/digital clock</b>	Yes
<b>Lists</b>	
<b>Number of text lists per project</b>	500
<b>Number of entries per text list</b>	500
<b>Number of graphics lists per project</b>	500
<b>Number of entries per graphics list</b>	500
<b>Archiving</b>	
<b>Number of archives per device</b>	50
<b>Number of entries per archive</b>	50000



<b>Message archive</b>	Yes
<b>Process value archive</b>	Yes
<b>Archiving methods</b>	
<b>Sequential archive</b>	Yes
<b>Short-term archive</b>	Yes
<b>Memory location</b>	
<b>Memory card</b>	Yes
<b>USB memory</b>	Yes
<b>Ethernet</b>	Yes
<b>Data storage format</b>	
<b>CSV</b>	Yes
<b>TXT</b>	Yes
<b>RDB</b>	Yes
<b>Security</b>	
<b>Number of user groups</b>	50
<b>Number of user rights</b>	32
<b>Number of users</b>	50
<b>Password export/import</b>	Yes
<b>SIMATIC Logon</b>	Yes
<b>Logging through printer</b>	
<b>Alarms</b>	Yes
<b>Report (shift log)</b>	Yes
<b>Hardcopy</b>	Yes
<b>Electronic print to file</b>	Yes ; pdf, html
<b>Character sets</b>	
<b>Keyboard fonts</b>	
<b>US English</b>	Yes
<b>Character sets</b>	
<b>Tahoma</b>	Yes
<b>Arial</b>	Yes
<b>Courier New</b>	Yes
<b>WinCC flexible Standard</b>	Yes
<b>Ideographic languages</b>	Yes
<b>Font size freely scalable</b>	Yes
<b>Additional character sets can be loaded</b>	Yes
<b>Transfer (upload/download)</b>	
<b>MPI/PROFIBUS DP</b>	Yes
<b>USB</b>	Yes
<b>Ethernet</b>	Yes

using external storage medium	No
<b>Process coupling</b>	
S7-1200	Yes
S7-1500	Yes
S7-200	Yes
S7-300/400	Yes
LOGO!	Yes
Win AC	Yes
SINUMERIK	No
SIMOTION	No ; With WinCC, subsequent version
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	No
<b>Service tools/configuration aids</b>	
Clean screen	Yes
Touch calibration	Yes
Backup/restore	Yes
Backup/Restore automatically	Yes
Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
<b>I/O / Options</b>	
<b>I/O devices</b>	
Printer	Yes
MultiMediaCard	Yes
SD card	Yes
USB memory	Yes
Network camera	Yes
<b>Mechanics/material</b>	
<b>Type of housing (front)</b>	
Plastic	No
Aluminum	Yes

<b>Stainless steel</b>	No
<b>Dimensions</b>	
<b>Width of the housing front</b>	415 mm
<b>Height of housing front</b>	310 mm
<b>Mounting cutout (W x H x D)</b>	
<b>Mounting cutout, width</b>	396 mm
<b>Mounting cutout, height</b>	291 mm
<b>Device depth</b>	75 mm
<b>Weights</b>	
<b>Weight without packaging</b>	5.2 kg
Status	Dec 12, 2013