

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



## Product type designation

### 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 |
| • Vertical image resolution   | 800   |

### Backlighting

- |                                |              |
|--------------------------------|--------------|
| • MTBF backlighting (at 25 °C) | 80 000 h     |
| • Dimmable backlight           | Yes; 0-100 % |

### Control elements

#### Keyboard

- |                              |    |
|------------------------------|----|
| • Number of function keys    | 0  |
| • Keys with LED              | No |
| • System keys                | No |
| • Numeric/alphabetical input |    |

— Numeric keyboard	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>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
Acoustics	
• 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
• Synchronizable	Yes
<b>Interfaces</b>	
Number of RS 485 interfaces	1; RS 422/485 combined
Number of USB interfaces	2; USB 2.0
Number of USB Mini B interfaces	1; 5-pole
Number of SD card slots	2

Number of parallel interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	1
Number of other interfaces	0
With software interfaces	No
<b>Industrial Ethernet</b>	
• Number of industrial Ethernet interfaces	3
• Industrial Ethernet status LED	3
• Number of ports of the integrated switch	2
<b>Protocols</b>	
PROFINET	Yes
PROFINET IO	Yes
IRT supported	Yes; As of WinCC V12
MRP supported	Yes
PROFIBUS	Yes
MPI	Yes
<b>Protocols (Ethernet)</b>	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
<b>WEB characteristics</b>	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• CSS	Yes
• Active X	Yes
• JavaScript	Yes
• Java VM	No
<b>Further protocols</b>	
• CAN	No
• MODBUS	Yes
• Supports protocol for EtherNet/IP	Yes
<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
Enclosure Type 4 at the front	Yes

Enclosure type 4x at the front	Yes
IP (rear)	IP20
<b>Standards, approvals, certificates</b>	
CE mark	Yes
KC approval	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
<b>Marine approval</b>	
• Germanischer Lloyd (GL)	No
• American Bureau of Shipping (ABS)	No
• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (Class NK)	No
• Polski Rejestr Statkow (PRS)	No
<b>Use in hazardous areas</b>	
• ATEX Zone 2	No
• ATEX Zone 22	No
• IECEx Zone 2	No
• IECEx Zone 22	No
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes
• FM Class I Division 2	Yes
<b>Ambient conditions</b>	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
<b>Operating temperature</b>	
• Operation (vertical installation)	
— in vertical mounting position, minimum	0 °C
— in vertical mounting position, maximum	50 °C; (55 °C, see entry ID:64847814)
• Operation (max. tilt angle)	
— at maximum tilt angle, minimum	0 °C
— at maximum tilt angle, maximum	40 °C
• Operation (vertical installation, portrait format)	
— in vertical mounting position, minimum	0 °C
— in vertical mounting position, maximum	40 °C
• Operation (max. tilt angle, portrait format)	
— 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>	
• Operation, max.	90 %
<b>Operating systems</b>	
proprietary	No
<b>Executable with configuration operating system</b>	
• 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
• WinCC Professional (TIA Portal)	Yes; V11 SP2 or higher
<b>Languages</b>	
<b>Online languages</b>	
• Number of online/runtime languages	32
<b>Languages</b>	
• Languages per project	32
• Languages	
— D	Yes
— GB	Yes
— F	Yes
— I	Yes
— E	Yes
— Chinese traditional	Yes
— Chinese simplified	Yes
— DK	Yes
— FIN	Yes
— GR	Yes
— J	Yes
— KP / ROK	Yes
— NL	Yes

— N	Yes
— PL	Yes
— P	Yes
— RUS	Yes
— S	Yes
— CZ	Yes
— SK	Yes
— TR	Yes
— H	Yes

## Functionality under WinCC (TIA Portal)

Libraries	Yes
Applications/options	
• Internet Explorer	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
• Number of bit messages	6 000
• 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	1 024
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
Recipe administration	

• 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
<b>Variables</b>	
• Number of variables per device	4 096
• 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
• Global image	Yes
• Start screen configurable	Yes
• Image selection by PLC	Yes
• Image number in the PLC	Yes
<b>Image objects</b>	
• 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 view	Yes
• Icons	Yes
• Geometric objects	Yes
<b>Complex image objects</b>	
• 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
• Bar graphs	Yes

• Sliders	Yes
• Pointer instruments	Yes
• Analog/digital clock	Yes
<b>Lists</b>	
• Number of text lists per project	500
• Number of entries per text list	500
• Number of graphics lists per project	500
• Number of entries per graphics list	500
<b>Archiving</b>	
• Number of archives per device	50
• Number of entries per archive	50 000
• Message archive	Yes
• 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
<b>Security</b>	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	Yes
• SIMATIC Logon	Yes
<b>Logging through printer</b>	
• Alarms	Yes
• Report (shift log)	Yes
• Hardcopy	Yes
• Electronic print to file	Yes; pdf, html
<b>Character sets</b>	
• Keyboard	
— US American (English)	Yes
• Character sets	
— Tahoma	Yes
— Arial	Yes
— Courier New	Yes
— WinCC flexible Standard	Yes



— Ideographic languages	Yes
• Font size freely scalable	Yes
• Additional character sets can be loaded	Yes
<b>Transfer (upload/download)</b>	
• MPI/PROFIBUS DP	Yes
• USB	Yes
• Ethernet	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	Yes; with SINUMERIK option package
• 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	Yes
<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

## Mechanics/material

Type of housing (front)

- |                   |     |
|-------------------|-----|
| • plastic         | No  |
| • aluminum        | Yes |
| • Stainless steel | No  |

## Dimensions

Width of the housing front	415 mm
Height of housing front	310 mm
Mounting cutout/device depth (W x H x T)	
• Mounting cutout, width	396 mm
• Mounting cutout, height	291 mm
Device depth	75 mm

## Weights

Without packaging	5.2 kg
<b>last modified:</b>	14.10.2014