

SIMATIC HMI TP1500 Comfort INOX Stainless steel front, continuous decorative foil; Degree of protection front IP66K, 15" widescreen TFT display, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, Windows CE 2013; Configurable from WinCC Comfort V14 SP1 with HSP

General information

Product type designation	TP1500 Comfort INOX
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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 |
| • Keys with LED | No |
| • System keys | No |
| • Numeric keyboard | Yes; Onscreen keyboard |
| • alphanumeric keyboard | Yes; Onscreen keyboard |

Touch operation

- | | |
|--------------------------|-----|
| • Design as touch screen | Yes |
|--------------------------|-----|

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 I ² t	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	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes

Interfaces	
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 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	3
• Number of ports of the integrated switch	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS	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
• EtherNet/IP	Yes
• 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)	IP66K

IP (rear)	IP20
NEMA (front)	
<ul style="list-style-type: none"> • Enclosure Type 4 at the front 	No
<ul style="list-style-type: none"> • Enclosure Type 4x at the front 	Yes; indoor use only

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

<ul style="list-style-type: none"> • ATEX Zone 2 	Yes
<ul style="list-style-type: none"> • ATEX Zone 22 	Yes
<ul style="list-style-type: none"> • IECEx Zone 2 	Yes
<ul style="list-style-type: none"> • IECEx Zone 22 	Yes
<ul style="list-style-type: none"> • cULus Class I Zone 1 	No
<ul style="list-style-type: none"> • cULus Class I Zone 2, Division 2 	Yes
<ul style="list-style-type: none"> • FM Class I Division 2 	No

Marine approval

<ul style="list-style-type: none"> • Germanischer Lloyd (GL) 	No; In application process
<ul style="list-style-type: none"> • American Bureau of Shipping (ABS) 	No; Available soon
<ul style="list-style-type: none"> • Bureau Veritas (BV) 	No; Available soon
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	No; Available soon
<ul style="list-style-type: none"> • Korean Register of Shipping (KRS) 	No; Available soon
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No; Available soon
<ul style="list-style-type: none"> • Nippon Kaiji Kyokai (Class NK) 	No; Available soon
<ul style="list-style-type: none"> • Polski Rejestr Statkow (PRS) 	No; Available soon
<ul style="list-style-type: none"> • Chinese Classification Society (CCS) 	No; Available soon

Ambient conditions

Suited for indoor use	Yes
Suited for outdoor use	No

Ambient temperature during operation

<ul style="list-style-type: none"> • Operation (vertical installation) <ul style="list-style-type: none"> — For vertical installation, min. — For vertical installation, max. 	0 °C 50 °C
<ul style="list-style-type: none"> • Operation (max. tilt angle) <ul style="list-style-type: none"> — At maximum tilt angle, min. — At maximum tilt angle, min. 	0 °C 40 °C
<ul style="list-style-type: none"> • Operation (vertical installation, portrait format) <ul style="list-style-type: none"> — For vertical installation, min. — For vertical installation, max. 	0 °C 40 °C

<ul style="list-style-type: none"> • Operation (max. tilt angle, portrait format) <ul style="list-style-type: none"> — At maximum tilt angle, min. 0 °C — At maximum tilt angle, min. 40 °C 	
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. -20 °C • max. 60 °C 	
Relative humidity	
<ul style="list-style-type: none"> • Operation, max. 80 %; no condensation 	
Operating systems	
proprietary	No
pre-installed operating system	
<ul style="list-style-type: none"> • Windows CE 	Yes; Windows Embedded Compact 2013
Configuration	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
Configuration software	
<ul style="list-style-type: none"> • STEP 7 Basic (TIA Portal) • STEP 7 Professional (TIA Portal) • WinCC flexible Compact • WinCC flexible Standard • WinCC flexible Advanced • WinCC Basic (TIA Portal) • WinCC Comfort (TIA Portal) • WinCC Advanced (TIA Portal) • WinCC Professional (TIA Portal) 	No No No No No No Yes; V14 SP1 HSP and higher Yes; V14 SP1 HSP and higher Yes; V14 SP1 HSP and higher
Languages	
Online languages	
<ul style="list-style-type: none"> • Number of online/runtime languages 	32
Project languages	
<ul style="list-style-type: none"> • Languages per project 	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	
<ul style="list-style-type: none"> • Web browser • Pocket Word • Pocket Excel • PDF Viewer 	Yes Yes Yes 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 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 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	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
• IP camera display	Yes
• Bar graphs	Yes
• Sliders	Yes
• Pointer instruments	Yes
• Analog/digital clock	Yes
Lists	
• 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
Archiving	
• 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
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	
• S7-1200	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) 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

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	No
• Stainless steel	Yes

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	74 mm

Weights

Weight without packaging

5.9 kg

last modified:

11/25/2020