

SIMATIC HMI KP1500 COMFORT,  
COMFORT PANEL, KEY 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>	36
<b>Keys with LED</b>	Yes
<b>System keys</b>	Yes
<b>Numeric/alphabetical input</b>	
<b>Numeric keyboard</b>	Yes

Alphanumeric keyboard	Yes
<b>Touch operation</b>	
Design as touch screen	No
<b>Expansions for operator control of the process</b>	
DP direct LEDs (LEDs as S7 output I/O)	
F1...Fx	36
Direct keys (keys as S7 input I/O)	
F1...Fx	36
<b>Installation type/mounting</b>	
Mounting in portrait format possible	No
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
Acoustics	
Buzzer	No
Speaker	Yes
<b>Time of day</b>	
Clock	

<b>Hardware clock (real-time clock)</b>	Yes
<b>Software clock</b>	No
<b>Battery-backed</b>	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

JavaScript	Yes
Java VM	No
<b>Further protocols</b>	
CAN	No
MODBUS	Yes
Supports protocol for EtherNet/IP	Yes
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostic messages</b>	
Diagnostic information readable	Yes ; S7 controller
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes
Emission of radio interference acc. to EN 55 011 (limit class B)	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	Yes
KC approval	Yes
cULus	Yes
C-TICK	Yes
<b>Marine approval</b>	
GL	No
ABS	No
BV	No
DNV	No
LRS	No
Class NK	No
PRS	No
<b>Use in hazardous areas</b>	
ATEX Zone 2	No
ATEX Zone 22	No
cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	Yes
FM Class I Division 2	Yes

Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35 °
Operating temperature	
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
Storage/transport temperature	
Min.	-20 °C
max.	60 °C
Relative humidity	
max. relative humidity	90 %
Operating systems	
Windows CE	Yes
proprietary	No
other	No
Configuration	
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
Configuration software	
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

<b>WinCC Comfort (TIA Portal)</b>	Yes ; V11 SP2 or higher
<b>WinCC Advanced (TIA Portal)</b>	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>	
<b>time-controlled</b>	Yes
<b>task-controlled</b>	Yes
<b>Help system</b>	
<b>Number of characters per info text</b>	320
<b>Message system</b>	
<b>Number of alarm classes</b>	32
<b>Number of bit messages</b>	6000
<b>Number of analog messages</b>	200
<b>S7 alarm number procedure</b>	Yes
<b>System messages HMI</b>	Yes
<b>System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)</b>	Yes
<b>Number of characters per message</b>	80
<b>Number of process values per message</b>	8
<b>Acknowledgment groups</b>	Yes
<b>Message indicator</b>	Yes
<b>Message buffer</b>	
<b>Number of entries</b>	1024
<b>Circulating buffer</b>	Yes
<b>retentive</b>	Yes
<b>maintenance-free</b>	Yes
<b>Recipe administration</b>	
<b>Number of recipes</b>	500
<b>Data records per recipe</b>	1000
<b>Entries per data record</b>	2000
<b>Size of internal recipe memory</b>	4 Mbyte
<b>Recipe memory expandable</b>	Yes
<b>Variables</b>	
<b>Number of variables per device</b>	4096
<b>Number of variables per screen</b>	400
<b>Limit values</b>	Yes
<b>Multiplexing</b>	Yes
<b>Structs</b>	Yes
<b>Arrays</b>	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>	



<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

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	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>	
I/O devices	
Printer	Yes
MultiMediaCard	Yes
SD card	Yes
USB memory	Yes
Network camera	Yes
<b>Mechanics/material</b>	
Type of housing (front)	

<b>Plastic</b>	No
<b>Aluminum</b>	Yes
<b>Stainless steel</b>	No

#### Dimensions

<b>Width of the housing front</b>	483 mm
<b>Height of housing front</b>	310 mm
<b>Mounting cutout (W x H x D)</b>	
<b>Mounting cutout, width</b>	450 mm
<b>Mounting cutout, height</b>	291 mm
<b>Device depth</b>	75 mm

#### Weights

<b>Weight without packaging</b>	5.4 kg
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Status Dec 12, 2013