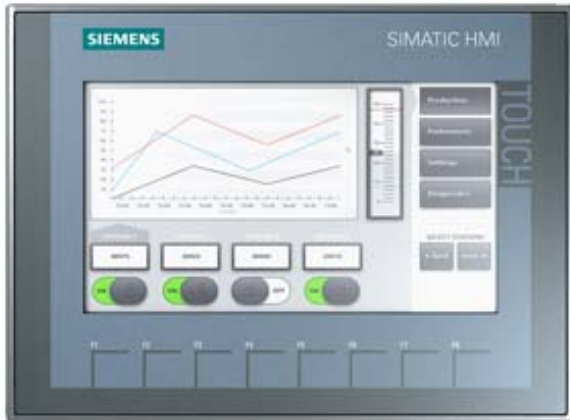


SIMATIC HMI, KTP700 BASIC DP, BASIC PANEL, KEY AND TOUCH OPERATION, 7" TFT DISPLAY, 65536 COLORS, PROFIBUS INTERFACE, CONFIGURATION FROM WINCC BASIC V13/ STEP7 BASIC V13, CONTAINS OPEN SOURCE SW WHICH IS PROVIDED FREE OF CHARGE FOR DETAILS SEE CD



General information	
Product type designation	SIMATIC HMI KTP700 Basic
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	7 in
Display width	154.1 mm
Display height	85.9 mm
Number of colors	65 536
Resolution (pixels)	
• Horizontal image resolution	800 Pixel
• Vertical image resolution	480 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	20 000 h
• Backlight dimmable	Yes
Control elements	
Keyboard fonts	
• Function keys	
— Number of function keys	8

• Keys with LED	No
• System keys	No
• Numeric/alphabetical input	
— Numeric keyboard	Yes; Onscreen keyboard
— alphanumeric keyboard	Yes; Onscreen keyboard
<b>Touch operation</b>	
• Design as touch screen	Yes
<b>Installation type/mounting</b>	
Mounting position	Horizontal, vertical
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
<b>Supply voltage</b>	
Type of supply voltage	24 V 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)	230 mA
Starting current inrush I <sup>2</sup> t	0.2 A <sup>2</sup> ·s
<b>Power</b>	
Power consumption, typ.	5.5 W
<b>Processor</b>	
Processor type	ARM
<b>Memory</b>	
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
<b>Type of output</b>	
Acoustics	
• Buzzer	Yes
• Speaker	No
<b>Time of day</b>	
<b>Clock</b>	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes

Interfaces	
Number of industrial Ethernet interfaces	0
Number of RS 485 interfaces	1
Number of USB interfaces	1; Up to 16 GB
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0; with optional adapter
Number of RS 422 interfaces	1; together with RS485
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	0
With software interfaces	No
Industrial Ethernet	
<ul style="list-style-type: none"> <li>Industrial Ethernet status LED</li> </ul>	0
Protocols	
PROFINET	No
Supports protocol for PROFINET IO	No
IRT	No
MRP	No
PROFIBUS	Yes
MPI	Yes
Protocols (Ethernet)	
<ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>	No
<ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>	No
<ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>	No
<ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>	No
<ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>	No
WEB characteristics	
<ul style="list-style-type: none"> <li>HTTP</li> <li>HTML</li> </ul>	No
<ul style="list-style-type: none"> <li>HTTP</li> <li>HTML</li> </ul>	No
Further protocols	
<ul style="list-style-type: none"> <li>CAN</li> <li>MODBUS</li> <li>EtherNet/IP</li> </ul>	No
<ul style="list-style-type: none"> <li>CAN</li> <li>MODBUS</li> <li>EtherNet/IP</li> </ul>	Yes; Modicon (MODBUS RTU)
<ul style="list-style-type: none"> <li>CAN</li> <li>MODBUS</li> <li>EtherNet/IP</li> </ul>	No
Interrupts/diagnostics/status information	
Diagnostic messages	
<ul style="list-style-type: none"> <li>Diagnostic information readable</li> </ul>	No
EMC	
Emission of radio interference acc. to EN 55 011	
<ul style="list-style-type: none"> <li>Limit class A, for use in industrial areas</li> <li>Limit class B, for use in residential areas</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Limit class A, for use in industrial areas</li> <li>Limit class B, for use in residential areas</li> </ul>	No
Degree and class of protection	

IP (at the front)	65
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
IP (rear)	20

#### Standards, approvals, certificates

CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes

#### Marine approval

<ul style="list-style-type: none"> <li>• Germanischer Lloyd (GL)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• American Bureau of Shipping (ABS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Bureau Veritas (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	No

#### Use in hazardous areas

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

#### Ambient conditions

Ambient temperature during operation	
<ul style="list-style-type: none"> <li>• Operation (vertical installation) <ul style="list-style-type: none"> <li>— For vertical installation, min.</li> <li>— For vertical installation, max.</li> </ul> </li> </ul>	 0 °C 50 °C
<ul style="list-style-type: none"> <li>• Operation (max. tilt angle) <ul style="list-style-type: none"> <li>— At maximum tilt angle, min.</li> <li>— At maximum tilt angle, min.</li> </ul> </li> </ul>	 0 °C 40 °C
<ul style="list-style-type: none"> <li>• Operation (vertical installation, portrait format) <ul style="list-style-type: none"> <li>— For vertical installation, min.</li> <li>— For vertical installation, max.</li> </ul> </li> </ul>	 0 °C 40 °C
<ul style="list-style-type: none"> <li>• Operation (max. tilt angle, portrait format) <ul style="list-style-type: none"> <li>— At maximum tilt angle, min.</li> <li>— At maximum tilt angle, min.</li> </ul> </li> </ul>	 0 °C 35 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> <li>• min.</li> </ul>	-20 °C

• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %; no condensation
<b>Operating systems</b>	
proprietary	Yes
<b>pre-installed operating system</b>	
• Windows CE	No
<b>Configuration</b>	
Message indicator	Yes
Alarm logging 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)	Yes; via integrated WinCC Basic (TIA Portal)
• STEP 7 Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
• WinCC flexible Compact	No
• WinCC flexible Standard	No
• WinCC flexible Advanced	No
• WinCC Basic (TIA Portal)	Yes
• WinCC Comfort (TIA Portal)	Yes
• WinCC Advanced (TIA Portal)	Yes
• WinCC Professional (TIA Portal)	Yes
<b>Languages</b>	
<b>Online languages</b>	
• Number of online/runtime languages	10
<b>Project languages</b>	
• Languages per project	32
<b>Functionality under WinCC (TIA Portal)</b>	
Libraries	Yes
Applications/options	
• Web browser	Yes
Number of Visual Basic Scripts	No
Task planner	Yes
• time-controlled	No
• task-controlled	Yes
Help system	Yes
• Number of characters per info text	500
<b>Message system</b>	
• Number of alarm classes	32

• Bit messages	
— Number of bit messages	1 000
• Analog messages	
— Number of analog messages	25
• S7 alarm number procedure	No
• System messages HMI	Yes
• System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	Yes; System message buffer of the SIMATIC S7-1200 and S7-1500
• Number of characters per message	80
• Number of process values per message	8
• Acknowledgment groups	Yes
• Message indicator	Yes
• Message buffer	
— Number of entries	256
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
<b>Recipe management</b>	
• Number of recipes	50
• Data records per recipe	100
• Entries per data record	100
• Size of internal recipe memory	256 kbyte
• Recipe memory expandable	No
<b>Variables</b>	
• Number of variables per device	800
• Number of variables per screen	100
• Limit values	Yes
• Multiplexing	Yes
• Structures	No
• Arrays	Yes
<b>Images</b>	
• Number of configurable images	250
• Permanent window/default	Yes
• Global image	Yes
• Pop-up images	No
• Slide-in images	No
• Image selection by PLC	Yes
• Image number in the PLC	Yes
<b>Image objects</b>	
• Number of objects per image	100
• 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
<b>Complex image objects</b>	
• Number of complex objects per screen	10
• Alarm view	Yes
• Trend view	Yes
• User view	Yes
• Status/control	No
• Sm@rtClient view	No
• Recipe view	Yes
• f(x) trend view	No
• System diagnostics view	Yes; System message buffer of the SIMATIC S7-1200 and S7-1500
• Media Player	No
• HTML browser	Yes
• PDF display	No
• IP camera display	No
• Bar graphs	Yes
• Sliders	No
• Pointer instruments	No
• Analog/digital clock	No
<b>Lists</b>	
• Number of text lists per project	300
• Number of entries per text list	100
• Number of graphics lists per project	100
• Number of entries per graphics list	100
<b>Archiving</b>	
• Number of archives per device	2
• Number of entries per archive	10 000
• Message archive	Yes
• Process value archive	Yes
• Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes

• Memory location	
— Memory card	No
— USB memory	Yes
— Ethernet	No
• Data storage format	
— CSV	No
— TXT	Yes
— RDB	No
<b>Security</b>	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	Yes
• SIMATIC Logon	No
<b>Character sets</b>	
• Keyboard fonts	
— US English	Yes
<b>Transfer (upload/download)</b>	
• MPI/PROFIBUS DP	Yes
• USB	No
• Ethernet	No
• using external storage medium	No
<b>Process coupling</b>	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• S7-300/400	Yes
• LOGO!	Yes
• WinAC	Yes
• SINUMERIK	Yes; No access to NCK data
• SIMOTION	Yes
• Allen Bradley (EtherNet/IP)	No
• Allen Bradley (DF1)	Yes
• Mitsubishi (MC TCP/IP)	No
• Mitsubishi (FX)	Yes
• OMRON (FINS TCP)	No
• OMRON (LINK/Multilink)	Yes
• Modicon (Modbus TCP/IP)	No
• Modicon (Modbus)	Yes
<b>Service tools/configuration aids</b>	
• Backup/Restore manually	Yes



- |                                |     |
|--------------------------------|-----|
| • Backup/Restore automatically | No  |
| • Simulation                   | Yes |
| • Device switchover            | Yes |

### Peripherals/Options

#### Peripherals

- |  |     |
|--|-----|
| • Printer  | No  |
| • SIMATIC HMI MM memory card: Multi Media Card           | No  |
| • SIMATIC HMI SD memory card: Secure Digital memory card | No  |
| • SIMATIC HMI CF memory card Compact Flash Card          | No  |
| • USB memory   | Yes |
| • SIMATIC IPC USB Flashdrive (USB stick)                 | Yes |
| • SIMATIC HMI USB stick                                  | Yes |

### Mechanics/material

#### Enclosure material (front)

- |                   |     |
|-------------------|-----|
| • Plastic         | Yes |
| • Aluminum        | No  |
| • Stainless steel | No  |

### Dimensions

Width of the housing front	214 mm
Height of housing front	158 mm
Mounting cutout, width	197 mm
Mounting cutout, height	141 mm
Overall depth	39 mm

### Weights

Weight without packaging	800 g
Weight incl. packaging	1 kg

**last modified:** 07/13/2016