



SIMATIC HMI, KTP1200 BASIC DP, BASIC PANEL, KEY AND TOUCH OPERATION, 12" 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

**Product type designation**

**Display**

Design of display	TFT widescreen display, LED backlighting
Screen diagonal	12 in
Display width	261.1 mm
Display height	163.2 mm
Number of colors	65 536

**Resolution (pixels)**

<ul style="list-style-type: none"> <li>• Horizontal image resolution</li> </ul>	1 280 Pixel
<ul style="list-style-type: none"> <li>• Vertical image resolution</li> </ul>	800 Pixel

**Backlighting**

<ul style="list-style-type: none"> <li>• MTBF backlighting (at 25 °C)</li> </ul>	20 000 h
<ul style="list-style-type: none"> <li>• Backlight dimmable</li> </ul>	Yes

**Control elements**

**Keyboard**

<ul style="list-style-type: none"> <li>• Function keys             <ul style="list-style-type: none"> <li>— Number of function keys</li> </ul> </li> </ul>	10
<ul style="list-style-type: none"> <li>• Keys with LED</li> </ul>	No
<ul style="list-style-type: none"> <li>• System keys</li> </ul>	No
<ul style="list-style-type: none"> <li>• Numeric/alphabetical input             <ul style="list-style-type: none"> <li>— Numeric keyboard</li> <li>— alphanumeric keyboard</li> </ul> </li> </ul>	Yes; Onscreen keyboard Yes; Onscreen keyboard

**Touch operation**

<ul style="list-style-type: none"> <li>• Design as touch screen</li> </ul>	Yes
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Installation type/mounting	
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	24 V 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)	550 mA
Starting current inrush I <sup>2</sup> t	0.2 A <sup>2</sup> ·s
Power	
Power consumption, typ.	13.2 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
usable memory for user data	10 Mbyte
Type of output	
Acoustics	
• Buzzer	Yes
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time clock)	Yes
• Software clock	Yes
• battery-backed	Yes
• synchronizable	Yes
Interfaces	
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
<b>Industrial Ethernet</b>	
• Number of industrial Ethernet interfaces	0
• Industrial Ethernet status LED	0
<b>Protocols</b>	
PROFINET	No
PROFINET IO	No
IRT	No
MRP	No
PROFIBUS	Yes
MPI	Yes
<b>Protocols (Ethernet)</b>	
• TCP/IP	No
• DHCP	No
• SNMP	No
• DCP	No
• LLDP	No
<b>WEB characteristics</b>	
• HTTP	No
• HTML	No
<b>Further protocols</b>	
• CAN	No
• MODBUS	Yes; Modicon (MODBUS RTU)
• EtherNet/IP	No
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostic messages</b>	
• Diagnostic information readable	No
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
• 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)	65
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
IP (rear)	20
<b>Standards, approvals, certificates</b>	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes

KC approval	Yes
<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	No
• FM Class I Division 2	No
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C
• Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	40 °C
• Operation (vertical installation, portrait format)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	40 °C
• Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	35 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %; no condensation
<b>Operating systems</b>	
pre-installed operating system	
• Windows CE	No
proprietary	Yes
<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 administration	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

## Languages

Online languages	
• Number of online/runtime languages	10
Project languages	
• Languages per project	32
• Project 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
— TR	Yes
— H	Yes

## Functionality under WinCC (TIA Portal)

Libraries	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 administration</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	100
• 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	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
• 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	Yes
— TXT	No
— 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	
— US American (English)	Yes
• Fonts	
— Tahoma	Yes
— Arial	No
— Courier New	No
— WinCC Standard	Yes
— Ideographic languages	Yes
• Font size freely scalable	Yes
• additional character sets loadable	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
• 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

#### Service tools/configuration aids

- Clean screen Yes
- Touch calibration Yes
- Backup/Restore manually Yes
- Backup/Restore automatically No
- Simulation Yes
- Device switchover Yes
- Delta transfer No

#### Peripherals/Options

##### Peripherals

- Printer No
- MultiMediaCard No
- SD card No
- USB memory Yes

#### Mechanics/material

##### Type of housing (front)

- plastic Yes
- aluminum No
- Stainless steel No

#### Dimensions

Width of the housing front	330 mm
Height of housing front	245 mm
Mounting cutout, width	310 mm
Mounting cutout, height	221 mm
Overall depth	60 mm

#### Weights

Without packaging	1 710 g
With packaging	2.2 kg

**last modified:** 03.06.2015