

SIMATIC HMI, KTP900 BASIC, BASIC PANEL, KEY AND TOUCH OPERATION, 9" TFT DISPLAY, 65536 COLORS, PROFINET 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	9 in
Display width	198 mm
Display height	111.7 mm
Number of colors	65 536

### Resolution (pixels)

• Horizontal image resolution	800
• Vertical image resolution	480

### Backlighting

• MTBF backlighting (at 25 °C)	20 000 h
• Dimmable backlight	Yes

### Control elements

#### Keyboard

• 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

#### Touch operation

• Design as touch screen	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	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)	230 mA
Starting current inrush I <sup>2</sup> t	0.2 A <sup>2</sup> ·s
Power	
Power consumption, typ.	5.5 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	0
Number of USB interfaces	1; Up to 16 GB
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	0
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	1
• Industrial Ethernet status LED	2
<b>Protocols</b>	
PROFINET	Yes
PROFINET IO	No
IRT	No
PROFIBUS	No
MPI	No
<b>Protocols (Ethernet)</b>	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
<b>WEB characteristics</b>	
• HTTP	No
• HTML	No
<b>Further protocols</b>	
• CAN	No
• MODBUS	Yes; Modicon (MODBUS TCP/IP)
• Supports protocol for EtherNet/IP	Yes
<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
KC approval	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes

Use in hazardous areas	
• ATEX Zone 2	No
• ATEX Zone 22	No
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	No
• FM Class I Division 2	No

### Ambient conditions

#### Ambient temperature in operation

• 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

#### Storage/transport temperature

• Min.	-20 °C
• max.	60 °C

#### Relative humidity

• Operation, max.	90 %
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### Operating systems

Pre-installed operating system	
• Windows CE	No
proprietary	Yes

### Configuration

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

#### Configuration software

• 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
Languages	
• 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
— 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
Message system	

• Number of alarm classes	32
• 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	Yes
— 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
• Structs	No
• Arrays	Yes
<b>Images</b>	
• Number of configurable images	250
• 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 view	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	150
• 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	
— US American (English)	Yes
• Character sets	
— Tahoma	Yes
— Arial	No
— Courier New	No
— WinCC flexible Standard	Yes
— Ideographic languages	Yes
• Font size freely scalable	Yes
<b>Transfer (upload/download)</b>	
• MPI/PROFIBUS DP	No
• USB	No
• 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	Yes
• Allen Bradley (EtherNet/IP)	Yes
• Allen Bradley (DF1)	No
• Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	No
• OMRON (FINS TCP)	No
• OMRON (LINK/Multilink)	No
• Modicon (Modbus TCP/IP)	Yes
• Modicon (Modbus)	No
<b>Service tools/configuration aids</b>	
• Clean screen	Yes



• Touch calibration	Yes
• Backup/restore	Yes
• Backup/Restore automatically	No
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	No

#### I/O / Options

I/O devices	
• 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	267 mm
Height of housing front	182 mm
Mounting cutout, width	251 mm
Mounting cutout, height	166 mm
Device depth	55 mm

#### Weights

Without packaging	1 130 g
With packaging	1 393 g

**last modified:** 12.03.2015