



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

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	
• Number of function keys	8
• Keys with LED	No

<ul style="list-style-type: none"> <li>• System keys</li> <li>• Numeric/alphabetical input               <ul style="list-style-type: none"> <li>— Numeric keyboard</li> <li>— Alphanumeric keyboard</li> </ul> </li> </ul>	<p>No</p> <p>Yes; Onscreen keyboard</p> <p>Yes; Onscreen keyboard</p>
<b>Touch operation</b>	
<ul style="list-style-type: none"> <li>• Design as touch screen</li> </ul>	Yes
<b>Installation type/mounting</b>	
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
<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
Inrush current A <sup>2</sup> s	0.2 A <sup>2</sup> s
<b>Power</b>	
Power consumption, typ.	5.5 W
<b>Memory</b>	
Flash	Yes
RAM	Yes
Usable memory for user data	10 Mbyte
<b>Type of output</b>	
Acoustics	
<ul style="list-style-type: none"> <li>• Buzzer</li> <li>• Speaker</li> </ul>	<p>Yes</p> <p>No</p>
<b>Time of day</b>	
<b>Clock</b>	
<ul style="list-style-type: none"> <li>• Hardware clock (real-time clock)</li> <li>• Software clock</li> <li>• Battery-backed</li> <li>• Synchronizable</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>Interfaces</b>	
Number of RS 485 interfaces	0

Number of USB interfaces	1; Up to 16 GB
Number of SD card slots	0
Number of parallel interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	0
Number of other interfaces	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 supported	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

#### 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
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

maximum permissible angle of inclination without external ventilation	35°
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#### Operating temperature

• Operation (vertical installation)	
— in vertical mounting position, minimum	0 °C
— in vertical mounting position, maximum	50 °C
• 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	35 °C

#### Storage/transport temperature

• Min.	-20 °C
• max.	60 °C

#### Relative humidity

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

proprietary	Yes
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### Executable with configuration operating system

• other	No
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### Configuration

Message indicator	Yes
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With alarm logging system (incl. buffer and acknowledgment)	Yes
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Process value display (output)	Yes
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Process value default (input) possible	Yes
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Recipe administration	Yes
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### Configuration software

• STEP 7 Basic (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
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• STEP 7 Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
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• WinCC flexible Compact	No
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• WinCC flexible Standard	No
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• WinCC flexible Advanced	No
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• WinCC Basic (TIA Portal)	Yes
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• WinCC Comfort (TIA Portal)	Yes
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• WinCC Advanced (TIA Portal)	Yes
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• WinCC Professional (TIA Portal)	Yes
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### Languages

#### Online languages

• Number of online/runtime languages	10
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#### Languages

• Languages per project	32
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• Languages	
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— D	Yes
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— GB	Yes
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— F	Yes
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— I	Yes
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— E	Yes
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— Chinese traditional	Yes
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— Chinese simplified	Yes
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— DK	Yes
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— FIN	Yes
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— 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
• Number of bit messages	1 000
• 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	Yes
— Number of entries	256
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes

Recipe administration	
• 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
Variables	
• Number of variables per device	800
• Number of variables per screen	100
• Limit values	Yes
• Multiplexing	Yes
• Structs	No
• Arrays	Yes
Images	
• 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
Image objects	
• 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
Complex image objects	
• 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; Possible via ProSave
• SIMATIC Logon	No



Character sets	
• 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
Transfer (upload/download)	
• MPI/PROFIBUS DP	No
• USB	No
• Ethernet	Yes
• using external storage medium	No
Process coupling	
• 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
Service tools/configuration aids	
• Clean screen	Yes
• Touch calibration	Yes
• Backup/restore	Yes; Possible via ProSave
• Backup/Restore automatically	No

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|---------------------|-----|
| • Simulation        | Yes |
| • Device switchover | Yes |
| • Delta transfer    | No  |

#### I/O / Options

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|------------------|-----|
| I/O devices      |     |
| • Printer        | No  |
| • MultiMediaCard | No  |
| • SD card        | No  |
| • USB memory     | Yes |

#### Mechanics/material

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|-------------------------|-----|
| Type of housing (front) |     |
| • plastic               | Yes |
| • aluminum              | No  |
| • Stainless steel       | No  |

#### Dimensions

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|--|--------|
| Width of the housing front               | 267 mm |
| Height of housing front                  | 182 mm |
| Mounting cutout/device depth (W x H x T) |        |
| • 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    |
| <b>last modified:</b> | 25.09.2014 |