



SIMATIC HMI KP400 BASIC COLOR PN, BASIC PANEL, KEY OPERATION, 4" WIDESCREEN-TFT-DISPLAY, 256 COLORS, PROFINET INTERFACE, CONFIGURATION FROM WINCC BASIC V11 SP2/ STEP 7 BASIC V11 SP2, CONTAINS OPEN SOURCE SW WHICH IS PROVIDED FREE OF CHARGE FOR DETAILS SEE CD

### Product type designation

#### Display

Design of display	TFT
Screen diagonal	4.3 in
Display width	95 mm
Display height	53.8 mm
Number of colors	256

#### Resolution (pixels)

- |                               |           |
|-------------------------------|-----------|
| • Horizontal image resolution | 480 pixel |
| • Vertical image resolution   | 272 pixel |

#### Backlighting

- |                                |          |
|--------------------------------|----------|
| • MTBF backlighting (at 25 °C) | 50 000 h |
| • Dimmable backlight           | No       |

#### Control elements

##### Keyboard

- |                              |                              |
|------------------------------|------------------------------|
| • Function keys              |                              |
| — Number of function keys    | 8                            |
| • Keys with LED              | No                           |
| • System keys                | Yes; 26                      |
| • Numeric/alphabetical input |                              |
| — Numeric keyboard           | Yes; Keyboard                |
| — Alphanumeric keyboard      | Yes; similar to mobile phone |

##### Touch operation

- |                          |    |
|--------------------------|----|
| • Design as touch screen | No |
|--------------------------|----|

Installation type/mounting	
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
Mounting position	vertical
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)	0.1 A
Starting current inrush I <sup>2</sup> t	0.5 A <sup>2</sup> ·s
Power	
Power consumption, typ.	2 W
Processor	
Processor type	RISC 32-bit
Memory	
Flash	Yes
RAM	Yes
Usable memory for user data	1 Mbyte
Type of output	
Acoustics	
• Buzzer	No
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time clock)	No
• Software clock	Yes
• Battery-backed	No
• Synchronizable	Yes
Interfaces	
Number of RS 485 interfaces	0
Number of USB interfaces	0
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>EMC</b>	
Emission of radio interference acc. to EN 55 011	
• 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)	IP65
Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
IP (rear)	IP20
<b>Standards, approvals, certificates</b>	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
<b>Marine approval</b>	
• Germanischer Lloyd (GL)	No
• American Bureau of Shipping (ABS)	No

• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (Class NK)	No
• Polski Rejestr Statkow (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	No
• FM Class I Division 2	No
<b>Ambient conditions</b>	
<b>Ambient temperature in 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
<b>Ambient temperature during storage/transportation</b>	
• Min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %
<b>Operating systems</b>	
<b>Pre-installed operating system</b>	
• 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	5
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### 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
— SK	Yes
— TR	Yes
— H	Yes

## Functionality under WinCC (TIA Portal)

Libraries	Yes
Task planner	
• time-controlled	No
• task-controlled	Yes
Help system	Yes
• Number of characters per info text	320
Message system	
• Number of alarm classes	32

• System messages HMI	Yes
• Number of characters per message	80
• Number of process values per message	8
• Message indicator	Yes
• Message buffer	
— Number of entries	256
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
<b>Recipe administration</b>	
• Number of recipes	5
• Data records per recipe	20
• Entries per data record	20
• Size of internal recipe memory	40 kbyte
• Recipe memory expandable	No
<b>Variables</b>	
• Number of variables per device	500
• Number of variables per screen	30
• Limit values	Yes
• Multiplexing	Yes
• Structs	No
• Arrays	Yes
<b>Images</b>	
• Number of configurable images	50
• Permanent window/default	Yes; No permanent window can be configured
• 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	30
• 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; Predefined screen objects
• Geometric objects	Yes

Complex image objects	
• Number of complex objects per screen	5
• 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	No
• Media Player	No
• Bar graphs	Yes
• Sliders	No
• Pointer instruments	No
• Analog/digital clock	No
Lists	
• Number of text lists per project	150
• Number of entries per text list	30
• Number of graphics lists per project	100
• Number of entries per graphics list	30
Archiving	
• Number of archives per device	0
Security	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	No
• 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	No
• Additional character sets can be loaded	No
Transfer (upload/download)	
• 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	No
• SINUMERIK	No
• SIMOTION	No
• 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	No
• Touch calibration	No
• Backup/restore	Yes
• Backup/Restore automatically	No
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	No
<b>I/O / Options</b>	
<b>I/O devices</b>	
• Printer	No
• MultiMediaCard	No
• SD card	No
• USB memory	No
<b>Mechanics/material</b>	
<b>Type of housing (front)</b>	
• plastic	Yes
• aluminum	No
• Stainless steel	No
<b>Dimensions</b>	



Width of the housing front	162 mm
Height of housing front	189 mm
Mounting cutout, width	135 mm
Mounting cutout, height	171 mm
Device depth	33 mm

#### Weights

Without packaging	0.51 kg
With packaging	0.66 kg

**last modified:** 16.04.2015