



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 |
| • Vertical image resolution | 272 |

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
Inrush current A ² s	0.5 A ² 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
Industrial Ethernet	
• Number of industrial Ethernet interfaces	1
• Industrial Ethernet status LED	2
Protocols	
PROFINET	Yes
PROFINET IO	No
IRT	No
PROFIBUS	No
MPI	No
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	No
• HTML	No
Further protocols	
• CAN	No
• MODBUS	Yes; Modicon (MODBUS TCP/IP)
• Supports protocol for EtherNet/IP	Yes
EMC	
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
Degree and class of protection	
IP (at the front)	IP65
Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
IP (rear)	IP20
Standards, approvals, certificates	
CE mark	Yes
KC approval	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
Marine approval	
• 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
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)	
— 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
Storage/transport temperature	
• Min.	-20 °C
• max.	60 °C
Relative humidity	
• Operation, max.	90 %
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	5
--------------------------------------	---

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
Recipe administration	
• 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
Variables	
• Number of variables per device	500
• Number of variables per screen	30
• Limit values	Yes
• Multiplexing	Yes
• Structs	No
• Arrays	Yes
Images	
• 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
Image objects	
• 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
Process coupling	
• 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
Service tools/configuration aids	
• Clean screen	No
• Touch calibration	No
• 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	No
Mechanics/material	
Type of housing (front)	
• plastic	Yes
• aluminum	No
• Stainless steel	No
Dimensions	

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:	11.02.2015