

General information

Product type designation	KTP900 Basic color PN
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 Pixel
● Vertical image resolution	480 Pixel
Backlighting	
● MTBF backlighting (at 25 °C)	20 000 h
● Backlight dimmable	Yes
Control elements	
Keyboard fonts	
● Function keys	
— Number of function keys	8
— Number of function keys with LEDs	0
● Keys with LED	No
● System keys	No
● Numeric keyboard	Yes; Onscreen keyboard
● alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
● Design as touch screen	Yes
Installation type/mounting	
Mounting position	vertical
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 ² t	0.2 A ² ·s
Power	

Active power input, typ.	5.5 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
Type of output	
Acoustics	
• Buzzer	Yes
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	0
Number of RS 422 interfaces	0
Number of RS 232 interfaces	0
Number of USB interfaces	1; Up to 16 GB
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	0
With software interfaces	No
Industrial Ethernet	
• Industrial Ethernet status LED	2
Protocols	
PROFINET	Yes
Supports protocol for 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
Redundancy mode	
• MRP	No
Further protocols	
• CAN	No
• EtherNet/IP	Yes
• MODBUS	Yes; Modicon (MODBUS TCP/IP)
Interrupts/diagnostics/status information	
Diagnostic messages	
• Diagnostic information readable	No
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
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Use in hazardous areas	
• 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
Marine approval	
• Germanischer Lloyd (GL)	Yes
• American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes

- Polski Rejestr Statkow (PRS) No
- Chinese Classification Society (CCS) No

Ambient conditions

Ambient temperature during 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

Ambient temperature during storage/transportation

- min. -20 °C
- max. 60 °C

Relative humidity

- Operation, max. 90 %; no condensation

Operating systems

proprietary Yes

pre-installed operating system

- Windows CE No

Configuration

Message indicator Yes

Alarm system (incl. buffer and acknowledgment) Yes

Process value display (output) Yes

Process value default (input) possible Yes

Recipe management 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

Project languages

- Languages per project 32

Functionality under WinCC (TIA Portal)

Libraries Yes

Applications/options

- Web browser Yes
- SIMATIC WinCC Sm@rtServer Yes; Available with WinCC (TIA Portal) V14 or higher

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

- 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

Recipe management

- 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
- Structures No
- Arrays Yes

Images

- Number of configurable images 250
- Permanent window/default Yes
- Global image Yes
- Pop-up images No
- Slide-in images No
- 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 display 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
- HTML browser Yes

● PDF display	No
● IP camera display	No
● Bar graphs	Yes
● Sliders	No
● Pointer instruments	No
● Analog/digital clock	No

Lists

● 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

Archiving

● Number of archives per device	2; One message and one process value archive
● 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

Security

● Number of user groups	50
● Number of user rights	32
● Number of users	50
● Password export/import	Yes
● SIMATIC Logon	No

Character sets

● Keyboard fonts	
— US English	Yes

Transfer (upload/download)

● MPI/PROFIBUS DP	No
● USB	No
● Ethernet	Yes
● using external storage medium	Yes

Process coupling

● S7-1200	Yes
● S7-1500	Yes
● S7-200	Yes
● S7-300/400	Yes
● LOGO!	Yes
● WinAC	Yes
● SINUMERIK	Yes; No access to NCK data
● 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

● Backup/Restore manually	Yes
● Backup/Restore automatically	No
● Simulation	Yes
● Device switchover	Yes

Peripherals/Options

Peripherals

● Printer	No
● SIMATIC HMI MM memory card: Multi Media Card	No
● SIMATIC HMI SD memory card: Secure Digital memory card	No
● SIMATIC HMI CF memory card Compact Flash Card	No
● USB memory	Yes
● SIMATIC IPC USB Flashdrive (USB stick)	Yes
● SIMATIC HMI USB stick	Yes

Mechanics/material

Enclosure material (front)

● Plastic	Yes
● Aluminum	No
● Stainless steel	No

Dimensions

Width of the housing front	267 mm
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Height of housing front	182 mm
Mounting cutout, width	251 mm
Mounting cutout, height	166 mm
Overall depth	55 mm
Weights	
Weight without packaging	1 130 g
Weight incl. packaging	1 393 g