

SIPLUS HMI KTP1200 Basic DP -10...+50°C with conformal coating based on 6AV2123-2MA03-0AX0 . Key/touch "operation, ""12"" TFTP display," 65536 colors PROFIBUS interface, configurable as of WinCC Basic V13/ STEP 7 Basic V13, contains open source software, which is provided free of charge See enclosed CD-ROM



General information	
Product type designation	KTP1200 Basic color DP
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	12 in
Display width	261.1 mm
Display height	163.2 mm
Number of colors	65 536
Resolution (pixels)	
• Horizontal image resolution	1 280 Pixel
• Vertical image resolution	800 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	20 000 h
• Backlight dimmable	Yes
Control elements	
Keyboard fonts	
• Function keys	
— Number of function keys	10

— Number of function keys with LEDs	0
• Keys with LED	No
• System keys	No
• Numeric keyboard	Yes; Onscreen keyboard
• alphanumeric keyboard	Yes; Onscreen keyboard
<b>Touch operation</b>	
• Design as touch screen	Yes
<b>Installation type/mounting</b>	
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
<b>Supply voltage</b>	
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
<b>Input current</b>	
Current consumption (rated value)	550 mA
Starting current inrush I <sup>2</sup> t	0.2 A <sup>2</sup> ·s
<b>Power</b>	
Active power input, typ.	13.2 W
<b>Processor</b>	
Processor type	ARM
<b>Memory</b>	
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
<b>Type of output</b>	
Acoustics	
• Buzzer	Yes
• Speaker	No
<b>Time of day</b>	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
<b>Interfaces</b>	

Number of industrial Ethernet interfaces	0
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1; together with RS 485
Number of RS 232 interfaces	0; with optional adapter
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
<b>Industrial Ethernet</b>	
• Industrial Ethernet status LED	0

### Protocols

PROFINET	No
Supports protocol for PROFINET IO	No
IRT	No
PROFIBUS	Yes
MPI	Yes

### Protocols (Ethernet)

• TCP/IP	No
• DHCP	No
• SNMP	No
• DCP	No
• LLDP	No

### WEB characteristics

• HTTP	No
• HTML	No

### Redundancy mode

Media redundancy	
— MRP	No

### Further protocols

• CAN	No
• EtherNet/IP	No
• MODBUS	Yes; Modicon (MODBUS RTU)

### Interrupts/diagnostics/status information

Diagnoses	
• 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
IP (rear)	IP20
NEMA (front)	
• Enclosure Type 4 at the front	Yes
• Enclosure Type 4x at the front	Yes
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
• Operation (vertical installation)	
— For vertical installation, min.	-10 °C; = Tmin
— For vertical installation, max.	50 °C
• Operation (max. tilt angle)	
— At maximum tilt angle, min.	-10 °C; = Tmin
— At maximum tilt angle, min.	40 °C
• Operation (vertical installation, portrait format)	
— For vertical installation, min.	-10 °C; = Tmin
— For vertical installation, max.	40 °C
• Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	-10 °C; = Tmin
— At maximum tilt angle, min.	35 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning when condensation present), vertical mounting position
Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *

— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
<b>Usage in industrial process technology</b>	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
<b>Remark</b>	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
<b>Operating systems</b>	
proprietary	Yes
<b>pre-installed operating system</b>	
• Windows CE	No
<b>Configuration</b>	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	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 10

### Project languages

- Languages per project 32

## Functionality under WinCC (TIA Portal)

Libraries Yes

### Applications/options

- Web browser 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
- 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
<b>Variables</b>	
• Number of variables per device	800
• Number of variables per screen	100
• Limit values	Yes
• Multiplexing	Yes
• Structures	No
• Arrays	Yes
<b>Images</b>	
• Number of configurable images	250
• Permanent window/default	Yes
• Global image	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 display	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	300
• 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 fonts	
— US English	Yes
<b>Transfer (upload/download)</b>	
• MPI/PROFIBUS DP	Yes
• USB	No
• Ethernet	No
• using external storage medium	No
<b>Process coupling</b>	
• 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)	No
• Allen Bradley (DF1)	Yes
• Mitsubishi (MC TCP/IP)	No
• Mitsubishi (FX)	Yes
• OMRON (FINS TCP)	No
• OMRON (LINK/Multilink)	Yes
• Modicon (Modbus TCP/IP)	No
• Modicon (Modbus)	Yes

<b>Service tools/configuration aids</b>	
• Backup/Restore manually	Yes
• Backup/Restore automatically	No
• Simulation	Yes
• Device switchover	Yes

<b>Peripherals/Options</b>	
Printer	No
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory card	No
USB memory	Yes

<b>Mechanics/material</b>	
Enclosure material (front)	
• Plastic	Yes
• Aluminum	No
• Stainless steel	No

<b>Dimensions</b>	
Width of the housing front	330 mm
Height of housing front	245 mm
Mounting cutout, width	310 mm
Mounting cutout, height	221 mm
Overall depth	60 mm

<b>Weights</b>	
Weight without packaging	1 710 g
Weight incl. packaging	2.2 kg

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