

SIPLUS HMI KTP700 BASIC COLOR PN -20 ... +50 DEGREE WITH CONFORMAL COATING BASED ON 6AV2123-2GB03-0AX0 . 7" TFT DISPLAY, 65536 COLOR PROFINET SURFACE

General information

Product type designation SIPLUS HMI KTP700 Basic

Display

Design of display TFT widescreen display, LED backlighting

Screen diagonal 7 in

Display width 154.1 mm

Display height 85.9 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
- Keys with LED No
- System keys No
- Numeric/alphabetical input
 - Numeric keyboard Yes; Onscreen keyboard
 - alphanumeric keyboard Yes; Onscreen keyboard

Touch operation

- Design as touch screen Yes

Installation type/mounting

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 24 V 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	
Power consumption, 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 clock)	Yes
• Software clock	Yes
• retentive	Yes
• synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	0
Number of USB interfaces	1; Up to 16 GB
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	
• 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
Further protocols	
• CAN	No
• MODBUS	Yes; Modicon (MODBUS TCP/IP)
• EtherNet/IP	Yes
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)	65
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
IP (rear)	20
Standards, approvals, certificates	
CE mark	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	
Ambient temperature during operation	
• Operation (vertical installation)	
— For vertical installation, min.	-20 °C
— For vertical installation, max.	50 °C

<ul style="list-style-type: none"> • Operation (max. tilt angle) <ul style="list-style-type: none"> — At maximum tilt angle, min. -20 °C — At maximum tilt angle, min. 40 °C • Operation (vertical installation, portrait format) <ul style="list-style-type: none"> — For vertical installation, min. -20 °C — For vertical installation, max. 40 °C • Operation (max. tilt angle, portrait format) <ul style="list-style-type: none"> — At maximum tilt angle, min. -20 °C — At maximum tilt angle, min. 35 °C 	
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. -20 °C • max. 60 °C 	
Extended ambient conditions	
<ul style="list-style-type: none"> • relative to ambient temperature-atmospheric pressure-installation altitude 	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity	
<ul style="list-style-type: none"> — With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
<ul style="list-style-type: none"> — against biologically active substances / conformity with EN 60721-3-3 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
<ul style="list-style-type: none"> — against chemically active substances / conformity with EN 60721-3-3 	Yes; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
<ul style="list-style-type: none"> — against mechanically active substances / conformity with EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!
Operating systems	
proprietary	Yes
pre-installed operating system	
<ul style="list-style-type: none"> • Windows CE 	No
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	
<ul style="list-style-type: none"> • STEP 7 Basic (TIA Portal) 	Yes; via integrated WinCC Basic (TIA Portal)
<ul style="list-style-type: none"> • 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
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	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
• Structures	No
• Arrays	Yes
Images	
• Number of configurable images	250
• Permanent window/default	Yes
• Global image	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 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

• 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	100
• Number of graphics lists per project	100
• Number of entries per graphics list	100
Archiving	
• 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
Security	
• 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 fonts	
— US English	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
- WinAC 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

- Backup/Restore manually Yes; Possible via ProSave
- 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
- USB memory Yes

Mechanics/material

Enclosure material (front)

- Plastic Yes
- Aluminum No
- Stainless steel No

Dimensions

Width of the housing front	214 mm
Height of housing front	158 mm
Mounting cutout, width	197 mm
Mounting cutout, height	141 mm
Overall depth	39 mm

Weights

Weight without packaging	780 g
Weight incl. packaging	990 g
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