SIEMENS

Data sheet

SIPLUS HMI KTP700 Basic Color PN -20...+50°C with conformal coating based on "6AV2123-2GB03-0AX0 . ""7"""" TFT" "display, 65536 colors"" PROFINET" interface



Figure similar

General information	
Product type designation	KTP700 Basic color PN
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
 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 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	

	000 4
Current consumption (rated value)	230 mA
Starting current inrush I²t	0.2 A²-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 (real-time) Software clock	Yes
	Yes
• retentive	Yes
• synchronizable	res
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
EtherNet/IP	Yes
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)
Interrupts/diagnostics/status information	
Diagnoses	
Diagnostic information readable	No
EMC	
Emission of radio interference acc. to EN 55 011	
Emission of radio interference acc. to EN 33 011	

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altitude (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // T (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +3 500 m) // T (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 under condensation conditions) Resistance Coolants and lubricants — Resistant to commercially available coolants and lubricants Use in stationary industrial systems — to biologically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea — to biologically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B2		tallation altitude above sea level, max.
 With condensation, tested in accordance with IEC 60068-2-38, max. Resistance Coolants and lubricants Resistant to commercially available coolants and lubricants Use in stationary industrial systems to biologically active substances according to EN 60721-3-3 To mechanically active substances according to EN 60721-3-3 Use on ships/at sea to biologically active substances according to EN 60721-3-3 Use on ships/at sea Ves; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B2 mold and fungal spores (excluding fauna); Class 6B2 	5 hPa 658 hPa (+2 000 m +3 500 m) // Tmin	·
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Coolants and lubricants — Resistant to commercially available coolants and lubricants Use in stationary industrial systems — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea — to biologically active substances according to EN 600068-2-52 Use on ships/at sea — to biologically active substances according to EN 600068-2-52 Use on ships/at sea — to biologically active substances according to EN 600068-2-62 Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * Yes; Class 3S4 incl. sand, dust, * Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B2 mold and fungal spores (excluding fauna); Class 6B2		
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and lubricants Use in stationary industrial systems — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea — to biologically active substances according to Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * Yes; Class 3S4 incl. sand, dust, *		ants and lubricants
 to biologically active substances according to EN 60721-3-3 to chemically active substances according to EN 60721-3-3 to mechanically active substances according to EN 60721-3-3 to mechanically active substances according to EN 60721-3-3 to mechanically active substances according to EN 60721-3-3 Use on ships/at sea to biologically active substances according to Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, * Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3B2 mold, fungus and dry rot spores (with the exception fauna); Class 3B3 on request Yes; Class 3B4 incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3B4 incl. sand, dust, * 	I droplets in the air	and lubricants
EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea — to biologically active substances according to Tes; Class 3S4 incl. sand, dust, * Yes; Class 3S4 incl. sand, dust, *		
EN 60721-3-3 (severity degree 3); * — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea — to biologically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B2	request	EN 60721-3-3
EN 60721-3-3 Use on ships/at sea — to biologically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B2	75 %) incl. salt spray acc. to EN 60068-2-52	
— to biologically active substances according to Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B	and, dust, *	,
		on ships/at sea
EN 60721-3-6 request	and fungal spores (excluding fauna); Class 6B3 on	
— to chemically active substances according to Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	75 %) incl. salt spray acc. to EN 60068-2-52	,
— to mechanically active substances according to Yes; Class 6S3 incl. sand, dust; * EN 60721-3-6	and, dust; *	
Usage in industrial process technology		e in industrial process technology
 Against chemically active substances acc. to Yes; Class 3 (excluding trichlorethylene) 	g 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 permissil level LC3 (salt spray) and level LB3 (oil)	ne limits of EN 60721-3-3 class 3C4 permissible);	neasuring and control systems acc. to ANSI/ISA-
Remark		ark
 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! 		conditions acc. to EN 60721, EN 60654-4 and
Conformal coating		al coating

EN 61086	res, 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
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	10
Languages per project	32
Functionality under WinCC (TIA Portal)	OL CONTRACTOR OF THE CONTRACTO
Libraries	Yes
Number of Visual Basic Scripts	No
·	Yes
Task planner • time-controlled	No
task-controlled	Yes
Help system	Yes
Number of characters per info text	500
Message system	300
Number of alarm classes	32
Bit messages	02
Number of bit messages	1 000
Analog messages	
Number of analog messages	25
S7 alarm number procedure	No
System messages HMI	Yes
System messages rivii 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

Yes; Class 2 for high reliability

• Coatings for printed circuit board assemblies acc. to

— 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
 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	110
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
• \$7-200	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	N
Printer	No
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory	No
LICE manager	Voc
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

last modified: 5/17/2021 🖸