SIEMENS

Data sheet



SIPLUS HMI KTP400 Basic Color PN based on 6AV2123-2DB03-0AX0 with conformal coating, -20...+60 °C, 4" TFT display, 65536 colors PROFINET interface

Figure similar

Product type designation Display Design of display Screen diagonal Screen diagonal Display width Display height Number of colors Resolution (pixels) Horizontal image resolution Vertical image resolution NTBF backlighting (at 25 °C) Backlight dimmable Vers Control elements Keyboard fonts Function keys Number of function keys with LEDs Number of function keys with LEDs No System keys No Number in keyboard Prosi, Onscreen keyboard Presi, Analog-resistive Mounting in portrait format possible Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Presi Mounting in landscape format possible Mounting in portrait format possible Pres Mounting in portrait format possible Mounting in portrait format possible Pres Mounting in portrait format possible Mounting in portrait format possible Mounting in portrait format possible Pres Mo	General information		
Design of display	Product type designation	KTP400 Basic color PN	
Screen diagonal Display width Display height S3.9 mm Number of colors 65 536 Resolution (pixels) • Horizontal image resolution • Vertical image resolution 272 pixel Backlighting • MTBF backlighting (at 25 °C) • Backlight dimmable Yes Control elements Keyboard fonts • Function keys — Number of function keys with LEDs • Keys with LED No • System keys • Numer of function keys with LEDs • System keys • Numeric keyboard • alphanumeric keyboard Touch operation • Design as touch screen Touch operation • Design as touch screen Mounting in portrait format possible Mounting in portrait format possible Mounting in Inaldscape format possible maximum permissible angle of inclination without external ventilation Supply voltage Type of supply voltage Type of supply voltage Type of supply voltage Type permissible range, upper limit (DC) permissible range, upper limit (DC) 28.8 V	Display		
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Display height 53.9 mm Number of colors 65.536 Resolution (pixels)	Screen diagonal	4.3 in	
Number of colors Resolution (pixels) • Horizontal image resolution • Vertical image resolution • Vertical image resolution • Vertical image resolution 8 mTBF backlighting (at 25 °C) • Backlighting (at 25 °C) • Backlight dimmable Ves Control elements Keyboard fonts • Function keys — Number of function keys — Number of function keys with LEDs • Keys with LED • No • Keys with LED • No • System keys • Numeric keyboard • alphanumeric keyboard Touch operation • Design as touch screen • Design as touch screen Pess; Analog-resistive Installation type/mounting Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V	Display width	95 mm	
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Horizontal image resolution Vertical image resolution At 80 pixel Vertical image resolution At 80 pixel 272 pixel Backlighting MTBF backlighting (at 25 °C) Backlight dimmable Yes Control elements Keyboard fonts Function keys Number of function keys Number of function keys with LEDs System keys No System keys No Numeric keyboard Alphanumeric keyboard Alphanumeric keyboard Supply working Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting in portrait format possible Type of supply voltage Type of supply voltage Ale Vertical Market Ale Normanurical Mounting Mount	Number of colors	65 536	
Vertical image resolution Backlighting	Resolution (pixels)		
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Backlight dimmable Control elements Keyboard fonts Function keys Number of function keys No Keys with LED No System keys No Numeric keyboard Alphanumeric keyboard Design as touch screen Mounting in portrait format possible Mounting in portrait format possible maximum permissible angle of inclination without external ventilation Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) Permissible range, upper limit (DC) Permissible range, upper limit (DC) Pade Addition supplies with a supply voltage permissible range, upper limit (DC) Permissible range, upper limit (DC) Pade Addition supply voltage permissible range, upper limit (DC) Permissible range, upper limit (DC) Pade Addition supply voltage permissible range, upper limit (DC)	Backlighting		
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Function keys	 Backlight dimmable 	Yes	
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Keys with LED System keys No Numeric keyboard Alphanumeric keyboard Alphanumeric keyboard Alphanumeric keyboard Yes; Onscreen keyboard Touch operation Design as touch screen Yes; Analog-resistive Installation type/mounting Mounting in portrait format possible Mounting in landscape format possible Maximum permissible angle of inclination without external ventilation Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V	 Number of function keys 	4	
System keys Numeric keyboard Yes; Onscreen keyboard Yes; Onscreen keyboard Touch operation Design as touch screen Yes; Analog-resistive Installation type/mounting Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) Permissible range, upper limit (DC)	 — Number of function keys with LEDs 	0	
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Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 24 V 19.2 V 28.8 V	Supply voltage		
permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V	Type of supply voltage	DC	
permissible range, upper limit (DC) 28.8 V	Rated value (DC)	24 V	
	permissible range, lower limit (DC)	19.2 V	
Input current	permissible range, upper limit (DC)	28.8 V	
	Input current		
Current consumption (rated value) 125 mA	Current consumption (rated value)	125 mA	
Starting current inrush I²t 0.2 A²·s	Starting current inrush I2t	0.2 A ² ·s	

Power	
Active power input, typ.	3 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
Type of output	10 MByto
Acoustics	
Buzzer	Ven
	Yes
Speaker	No
Time of day	
Clock	
Hardware clock (real-time)	Yes
Software clock	Yes
• retentive	Yes
• 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
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	
Limit class A, for use in industrial areas	Yes
Limit class A, for use in residential areas Limit class B, for use in residential areas	No
Degree and class of protection	
	IP65
IP (at the front)	IP65

### Pictor ### P		
* Enclosure Type 4 at the front * Enclosure Type 4 at the front * Enclosure Type 4 at the front * Ambient conditions Ambient temperature during operation Operation (vinical installation) * For vertical installation max. Operation (max. till angle) * At maximum till angle, min. * At maximum till angle, min. * At maximum till angle, min. * For vertical installation, portrat format) * For vertical installation, portrat format) * For vertical installation, max. Operation (max. till angle, portrat format) * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, max. Operation (max. till angle, min. * At maximum till angle. * For vertical installation, max. Operation (max. till angle, min. * For vertical installation, min. * For		IP20
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- At maximum tilt angle, max. Operation (vertical installation, min For vertical installation, max. Operation (max. litt angle, optrait format) - At maximum tilt angle, min 20 °C: = Tmin - 35 °C, = Tmax - 20 °C of C - 60 °C - Configuration tells above sea level Not expected in accordance with IEC - Environmental conditions for process, measuring and control systems acc. to NSI/SA-71.04 - Remark - Note regarding classification of environmental conditions acc. to EN 60721, EN 60654.4 and NSI/SA-71.04 - Pertection against feeling classification of environmental conditions acc. to EN 60721, EN 60664.3 and NSI/SA-71.04 - Protection against fouling acc. to EN 60664.3 - Nititary tes	Operation (max. tilt angle)	
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— Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Military testing according to MIL-I-46058C, Amendment 7 Yes; Class 3 (excluding trichlorethylene) 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) * The supplied plug covers must remain in place over the unused interfaces during operation! Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Type 1 protection Yes; Discoloration of coating possible during service life		
EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Military testing according to MIL-I-46058C, Amendment 7 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) * The supplied plug covers must remain in place over the unused interfaces during operation! Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Type 1 protection Yes; Discoloration of coating possible during service life		Vec: Class 3 (avaluding trichlorathylana)
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measuring and control systems acc. to ANSI/ISA-71.04 concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) Remark — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Military testing according to MIL-I-46058C, Amendment 7 concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil) * The supplied plug covers must remain in place over the unused interfaces during operation! Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Type 1 protection Yes; Discoloration of coating possible during service life		Yes; Level GX group A/B (excluding trichlorethylene: harmful gas
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 Coatings for printed circuit board assemblies acc. to EN 61086 Protection against fouling acc. to EN 60664-3 Military testing according to MIL-I-46058C, Amendment 7 Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Type 1 protection Yes; Discoloration of coating possible during service life 	conditions acc. to EN 60721, EN 60654-4 and	
EN 61086 ● Protection against fouling acc. to EN 60664-3 ● Military testing according to MIL-I-46058C, Amendment 7 Yes; Type 1 protection Yes; Type 1 protection Yes; Discoloration of coating possible during service life	Conformal coating	
 Military testing according to MIL-I-46058C, Amendment 7 Yes; Discoloration of coating possible during service life 		Yes; Class 2 for high reliability
Amendment 7	 Protection against fouling acc. to EN 60664-3 	
		Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Yes; Conformal coating, Class A		Van Canfarmal agating Class A
	Qualification and Performance of Electrical	res; Conformal coating, Class A

Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	
Operating systems	
	Yes
proprietary pre-installed operating system	165
Windows CE	No
configuration / header	NO
	Ven
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes Yes
Process value default (input) possible	Yes
Recipe management	1 es
Configuration software	Voc. via integrated MinCC Pagia (TIA Portal)
STEP 7 Basic (TIA Portal)STEP 7 Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
,	Yes; via integrated WinCC Basic (TIA Portal) No
WinCC flexible Compact WinCC flexible Standard	No
WinCC flexible Standard WinCC flexible Advanced	No
Wincc liexible Advanced WinCC Basic (TIA Portal)	Yes
Wincc basic (TIA Portal) WinCC Comfort (TIA Portal)	Yes
Wincc Comion (TIA Portar) WinCC Advanced (TIA Portar)	Yes
Wincc Advanced (TIA Portal) 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)	52
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 event, more (SIMATIC S7, SINUMERIK, SIMOTION,)	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 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 device Number of variables per screen 	100
Limit values	Yes
Multiplexing	Yes
Structures	No
	Yes
Arrays Images	165
Number of configurable images	250
Permanent window/default	Yes
Global image	Yes
Image selection by PLC	Yes
Image selection by FES Image number in the PLC	Yes
Image objects	100
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 Presence value grabine	Yes
Process value archive Application and the decomposition of the	Yes
Archiving methods Segmential erabition	Voc
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	Na
— Memory card	No Voc
— USB memory	Yes
— Ethernet	No
Data storage format	No
— CSV — TXT	No Vos
— IAI	Yes

— RDB	No
Security	140
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	140
Keyboard fonts	
— US English	Yes
Transfer (upload/download)	100
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	
Printer	No
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory	No
card	
USB memory	Yes
Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
Aluminum	No
Stainless steel	No
Dimensions	
Width of the housing front	141 mm
Height of housing front	116 mm
Mounting cutout, width	123 mm
Mounting cutout, height	99 mm
Overall depth	33 mm
Weights	
Weight (without packaging)	360 g
Weight (with packaging) Weight (with packaging)	470 g
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