

SIPLUS HMI KTP400 BASIC COLOR PN -20 ... +50 DEGREE WITH CONFORMAL COATING BASED ON 6AV2123-2DB03-0AX0 . 4" TFT DISPLAY, 65536 COLOR PROFINET SURFACE

Product type designation

Display

Design of display	TFT widescreen display, LED backlighting
Screen diagonal	4.3 in
Display width	95 mm
Display height	53.9 mm
Number of colors	65 536
Resolution (pixels)	
• Horizontal image resolution	480 Pixel
• Vertical image resolution	272 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	20 000 h
• Backlight dimmable	Yes

Control elements

Keyboard	
• Function keys	
— Number of function keys	4
• 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)	125 mA
Starting current inrush I ² t	0.2 A ² ·s
Power	
Power consumption, typ.	3 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
usable memory 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
• battery-backed	Yes
• synchronizable	Yes
Interfaces	
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	
• Number of industrial Ethernet interfaces	1
• Industrial Ethernet status LED	2
Protocols	
PROFINET	Yes
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
• Operation (max. tilt angle)	

— At maximum tilt angle, min.	-20 °C
— At maximum tilt angle, min.	40 °C
• Operation (vertical installation, portrait format)	
— For vertical installation, min.	-20 °C
— For vertical installation, max.	40 °C
• Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	-20 °C
— At maximum tilt angle, min.	35 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Extended ambient conditions	
• 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	
— With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
— 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!
— 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!
— 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	
pre-installed operating system	
• Windows CE	No
proprietary	Yes
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	
• 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
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Project languages

• Languages per project	32
• Project languages	
— D	Yes
— GB	Yes
— F	Yes
— I	Yes
— E	Yes
— Chinese traditional	Yes
— Chinese simplified	Yes
— DK	Yes
— FIN	Yes
— GR	Yes
— J	Yes
— KP / ROK	Yes
— NL	Yes
— N	Yes
— PL	Yes
— P	Yes
— RUS	Yes
— S	Yes
— CZ	Yes
— TR	Yes
— H	Yes

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
• Start screen configurable	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	
— US American (English)	Yes
• Fonts	
— Tahoma	Yes
— Arial	No
— Courier New	No
— WinCC Standard	Yes
— Ideographic languages	Yes
• Font size freely scalable	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	
• Clean screen	Yes
• Touch calibration	Yes
• Backup/Restore manually	Yes; Possible via ProSave
• Backup/Restore automatically	No
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	No

Peripherals/Options

Peripherals	
• Printer	No
• MultiMediaCard	No
• SD card	No
• USB memory	Yes

Mechanics/material

Type of housing (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

Without packaging	360 g
With packaging	470 g

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