



Figure similar

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

General information	
Product type designation	KTP400 Basic color PN
based on	6AV2123-2DB03-0AX0
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 fonts	
• Function keys	
— Number of function keys	4
— 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; Analog-resistive
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
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	
Current consumption (rated value)	125 mA
Starting current inrush I ² t	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	
Acoustics	
• Buzzer	Yes
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• 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
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	No
• HTML	No
Redundancy mode	
Media redundancy	
— MRP	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 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	
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	-20 °C; = Tmin
— For vertical installation, max.	60 °C; = Tmax
Operation (max. tilt angle)	
— At maximum tilt angle, min.	-20 °C; = Tmin
— At maximum tilt angle, max.	40 °C; = Tmax
Operation (vertical installation, portrait format)	
— For vertical installation, min.	-20 °C; = Tmin
— For vertical installation, max.	40 °C; = Tmax
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	-20 °C; = Tmin
— At maximum tilt angle, max.	35 °C; = Tmax
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 under condensation conditions)
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, *
Use on ships/at sea	
— 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; *
Usage in industrial process technology	
— 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)
Remark	
— 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!

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 - Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life 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) - STEP 7 Professional (TIA Portal) - WinCC flexible Compact - WinCC flexible Standard - WinCC flexible Advanced - WinCC Basic (TIA Portal) - WinCC Comfort (TIA Portal) - WinCC Advanced (TIA Portal) - WinCC Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal) Yes; via integrated WinCC Basic (TIA Portal) No No No Yes Yes Yes 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	
SIMATIC WinCC Sm@rtServer	Yes; Available with WinCC (TIA Portal) V14 or higher
Number of Visual Basic Scripts	No
Task planner	Yes
- time-controlled - task-controlled	No Yes
Help system	Yes
Number of characters per info text	500
Message system	
- Number of alarm classes - Bit messages - Number of bit messages - Analog messages - Number of analog messages - S7 alarm number procedure - System messages HMI - System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...) - Number of characters per message - Number of process values per message - Acknowledgment groups - Message indicator - Message buffer - Number of entries - Circulating buffer	32 1 000 25 No Yes Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 80 8 Yes Yes Yes 256 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 screen	100
• Limit values	Yes
• Multiplexing	Yes
• Structures	No
• Arrays	Yes
Images	
• Number of configurable images	250
• Permanent window/default	Yes
• Global image	Yes
• Pop-up images	No
• Slide-in images	No
• 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
• HTML browser	Yes
• PDF display	No
• IP camera display	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 • Number of entries per archive • Message archive • Process value archive • Archiving methods — Sequential archive — Short-term archive • Memory location — Memory card — USB memory — Ethernet • Data storage format — CSV — TXT — RDB	2; One message and one process value archive 10 000 Yes Yes Yes Yes No Yes No No Yes No
Security	
• Number of user groups • Number of user rights • Number of users • Password export/import • SIMATIC Logon	50 32 50 Yes; Possible via ProSave No
Character sets	
• Keyboard fonts — US English	Yes
Transfer (upload/download)	
• MPI/PROFIBUS DP • USB • Ethernet • using external storage medium	No No Yes Yes
Process coupling	
• S7-1200 • S7-1500 • S7-200 • S7-300/400 • LOGO! • WinAC • SINUMERIK • SIMOTION • Allen Bradley (EtherNet/IP) • Allen Bradley (DF1) • Mitsubishi (MC TCP/IP) • Mitsubishi (FX) • OMRON (FINS TCP) • OMRON (LINK/Multilink) • Modicon (Modbus TCP/IP) • Modicon (Modbus)	Yes Yes Yes Yes Yes Yes Yes; No access to NCK data Yes Yes No Yes No No No Yes No
Service tools/configuration aids	
• Backup/Restore manually • Backup/Restore automatically • Simulation • Device switchover	Yes No Yes Yes
Peripherals/Options	
Printer	No
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory card	No
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes
SIMATIC HMI USB stick	Yes

Mechanics/material	
Enclosure material (front)	
• Plastic	Yes
• Aluminum	No
• Stainless steel	No
Dimensions	
Width of the housing front	140 mm
Height of housing front	116 mm
Mounting cutout, width	124 mm
Mounting cutout, height	100 mm
mounting depth	34.9 mm
Weights	
Weight (without packaging)	360 g
Weight (with packaging)	470 g
Classifications	

	Version	Classification
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	10	EC001412
ETIM	9	EC001412
ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates	
General Product Approval	EMV



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