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Product data sheet 6AV2124-1DC01-0AX0



SIMATIC HMI KP400 COMFORT,
COMFORT PANEL, KEY OPERATION,
4" WIDESCREEN-TFT-DISPLAY,
16 MIL. COLORS, PROFINET INTERFACE,
MPI/PROFIBUS DP INTERFACE,
4 MB USER MEMORY, WINDOWS CE 6.0,
CONFIGURABLE FROM WINCC COMFORT V11

Display	
Design of display	TFT
Screen diagonal	4.3 in
Display width	95 mm
Display height	53.8 mm
Number of colors	16777216
Resolution (pixels)	
Horizontal image resolution	480
Vertical image resolution	272
Backlighting	
MTBF backlighting (at 25 °C)	80000 h
Dimmable backlight	Yes ; 0-100 %
Control elements	
Keyboard fonts	
Number of function keys	8

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Keys with LED	Yes
System keys	Yes
Numeric/alphabetical input	
Numeric keyboard	Yes
Alphanumeric keyboard	Yes ; (similar to mobile phone)
Touch operation	
Design as touch screen	No
Expansions for operator control of the process	
Number/LEDs	
F1...Fx	8
Number/keys	
F1...Fx	8
Direct keys (touch buttons as S7 input I/O)	0
Installation type/mounting	
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
Supply voltage	
Type of supply voltage	DC
Rated voltage/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)	0.13 A
Inrush current A²s	0.5 A²·s
Power	
Power consumption, typ.	3.1 W
Processor	
Processor type	
X86	No
ARM	Yes
Memory	
Flash	Yes
RAM	Yes

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Usable memory for user data	4 Mbyte
Type of output	
Info LED	Yes
Power LED	No
Error LED	No
Acoustics	
Buzzer	Yes
Speaker	No
Time of day	
Clock	
Hardware clock (real-time clock)	Yes
Software clock	No
Battery-backed	Yes
Synchronizable	Yes
Interfaces	
Number of RS 485 interfaces	1 ; RS 422/485 combined
Number of USB interfaces	1 ; USB 2.0
Number of USB Mini B interfaces	1 ; 5-pole
Number of SD card slots	2
Number of parallel interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	1
Number of other interfaces	0
With software interfaces	No
Industrial Ethernet	
Number of industrial Ethernet interfaces	1
Industrial Ethernet status LED	2
Number of ports of the integrated switch	1
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT supported	No

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MRP supported	No
PROFIBUS	Yes
MPI	Yes
Protocols (Ethernet)	
TCP/IP	Yes
DHCP	Yes
SNMP	Yes
DCP	Yes
LLDP	Yes
WEB characteristics	
HTTP	Yes
HTTPS	No
HTML	Yes
XML	No
CSS	Yes
Active X	No
Java Script	Yes
Java VM	No
Further protocols	
CAN	No
MODBUS	Yes
Supports protocol for EtherNet/IP	Yes
Interrupts/diagnostics/status information	
Diagnostic messages	
Diagnostic information readable	Yes ; S7 controller
EMC	
Emission of radio interference acc. to EN 55 011	
Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes
Emission of radio interference acc. to EN 55 011 (limit class B)	No
Degree and class of protection	
Type of protection	IP20
IP (at the front)	IP65

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Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
Standards, approvals, certificates	
CE	Yes
KC approval	Yes
cULus	Yes
C-TICK	Yes
Use in hazardous areas	
ATEX Zone 2	Yes ; Available soon
ATEX Zone 22	Yes ; Available soon
cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	Yes
FM Class I Division 2	Yes
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
Operating temperature	
Operation (vertical installation)	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	50 °C
Operation (max. tilt angle)	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	40 °C
Operation (vertical installation, portrait format)	
in vertical mounting position/ minimum	0 °C
in vertical mounting position/ maximum	40 °C
Operation (max. tilt angle, portrait format)	
at maximum tilt angle/minimum	0 °C
at maximum tilt angle/maximum	35 °C
Storage/transport temperature	
Min.	-20 °C
max.	60 °C
Relative humidity	

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max. relative humidity	90 %
Operating systems	
Windows CE	Yes
proprietary	No
other	No
Configuration	
Message indicator	Yes
With 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)	No
STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes ; from V11
WinCC Advanced (TIA Portal)	Yes ; from V11
WinCC Professional (TIA Portal)	Yes ; from V11
Languages	
Online languages	
Number of online/runtime languages	32
Languages	
Languages per project	32
Languages	
D	Yes
GB	Yes
F	Yes
I	Yes
E	Yes
Chinese traditional	Yes

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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
SK	Yes
TR	Yes
H	Yes
Functionality under WinCC flexible	
Libraries	Yes
Applications/options	
Internet Explorer	Yes
Pocket Word	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
SIMATIC WinCC Sm@rtServer	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	
Number	50
Task planner	
time-controlled	Yes
task-controlled	Yes
Help system	
Number of characters per info text	70

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With alarm logging system (incl. buffer and acknowledgment)	
Number of alarm classes	32
Number of bit messages	2000
Number of analog messages	50
S7 alarm number procedure	Yes
System messages HMI	Yes
System messages, other (SIMATIC S7, Sinumerik, Simotion,..)	Yes
Number of characters per message	80
Number of process values per message	8
Acknowledgment groups	Yes
Message indicator	Yes
Message buffer	
Number of entries	256
Circulating buffer	Yes
retentive	Yes
maintenance-free	Yes
Recipes	
Number of recipes	100
Data records per recipe	200
Entries per data record	200
Size of internal recipe memory	256 kbyte
Recipe memory expandable	Yes
Variables	
Number of variables per device	1024
Number of variables per screen	50
Limit values	Yes
Multiplexing	Yes
Structs	Yes
Arrays	Yes
Images	
Number of configurable images	500
Permanent window/default	Yes
Global image	Yes

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Start screen configurable	Yes
Image selection by PLC	Yes
Image number in the PLC	Yes
Image objects	
Number of objects per image	50
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
Switch	Yes
Buttons	Yes
Graphic view	Yes
Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	5
Alarm view	Yes
Trend view	Yes
User view	Yes
Status/control	Yes
Sm@rtClient view	Yes
Recipe view	Yes
f(x) trend view	Yes
System diagnostics view	Yes
Media Player	Yes
Bar graphs	Yes
Sliders	Yes
Pointer instruments	Yes
Analog/digital clock	Yes
Lists	
Number of text lists per project	300
Number of entries per text list	30

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Number of graphics lists per project	100
Number of entries per graphics list	30
Archiving	
Number of archives per device	10
Number of entries per archive	10000
Message archive	Yes
Process value archive	Yes
Archiving methods	
Sequential archive	Yes
Short-term archive	Yes
Memory location	
Memory card	Yes
USB memory	Yes
Ethernet	Yes
Data storage format	
CSV	Yes
TXT	Yes
RDB	Yes
Security	
Number of user groups	50
Number of user rights	32
Number of users	50
Password export/import	Yes
SIMATIC Logon	Yes
Logging through printer	
Alarms	Yes
Report (shift log)	Yes
Hardcopy	Yes
Electronic print to file	Yes ; pdf, html
Character sets	
Keyboard fonts	
US English	Yes
Character sets	

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Tahoma	Yes
Arial	Yes
Courier New	Yes
WinCC flexible Standard	Yes
Ideographic languages	Yes
Font size freely scalable	Yes
Additional character sets can be loaded	Yes
Transfer (upload/download)	
MPI/PROFIBUS DP	Yes
USB	Yes
Ethernet	Yes
using external storage medium	No
Process coupling	
S7-1200	Yes
S7-200	Yes
S7-300/400	Yes
	Yes
Win AC	Yes
SINUMERIK	No
SIMOTION	Yes ; As of WinCC V12
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	Yes
Service tools/configuration aids	
Clean screen	No
Touch calibration	No
Backup/restore	Yes
Backup/Restore automatically	Yes

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Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
I/O / Options	
I/O devices	
Printer	Yes
Multi Media Card	Yes
SD card	Yes
USB memory	Yes
Mechanics/material	
Type of housing (front)	
Plastic	Yes
Aluminum	No
Stainless steel	No
Dimensions	
Width of the housing front	152 mm
Height of housing front	188 mm
Depth/installation dimension	49 mm
Mounting cutout, width	135 mm
Mounting cutout, height	171 mm
Weight	
Weight without packaging	0.8 kg
Weight incl. packaging	0.9 kg
Status	Jul 26, 2012

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