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Product data sheet 6AV6545-0BB15-2AX0

SIMATIC TOUCH PANEL TP170B MONO BLUE MODE STN DISPLAY MPI-/PROFIBUS-DP INTERFACE PRINTER/RS232 INTERFACE SLOT FOR CF-CARD CONFIGURABLE WITH PROTOOL/LITE FROM VERSION V5.2+SP2 PRODUCT CANCELLATION FROM 04-01-08. SUCCESSOR: TP177B BLUEMODE

Supply voltage	
Supply voltage	24 V DC
permissible range	+18 V to +30 V DC
Type of voltage	DC
Rated current	0.25 A
Power	6 W
Memory	
Type	Flash / RAM
Usable memory for user data	768 KB usable memory for user data
Time of day	
Clock	
Type	Software clock, synchronizable, no battery backup
Configuration	
Configuration tool	ProTool / Lite, Version 5.2 SP 1 or higher or WinCC flexible Compact Version 2004 or higher (to be ordered separately)
1st configuration kit	ProTool / Lite
Version	Version 5.2 SP 1
Configuration tool	ProTool
Type	Lite
2nd configuration kit	WinCC flexible Compact
Version	Version 2004
Configuration tool	WinCC flexible
Type	Compact
Display	
Display type	STN, 4 Blaustufen
Design of display	STN
Size	5.7"

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Screen diagonal	5.7 in
Resolution (WxH in pixel)	320 x 240
Color type	Blue levels
MTBF backlighting (at 25 °C)	about 50,000 hours
Expansions for operator control of the process	
DP direct keys (screen buttons and keys as S7 input I/O)	Number of bytes for configurable buttons: 4
DC 24 V direct key module/outputs	No
CPI module	No
Operating mode	
Control elements	Touch screen
Operating options	Touch
Connection for mouse/keyboard/barcode reader	- / - / -
external mouse	-
external keyboard	-
Touch screen	analog, resistive
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	No
Connection for barcode reader	-
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	+/- 35 °
max. relative humidity (in %)	85 %
Temperature	
Operation (vertical installation)	0 °C to +50 °C
Operation (max. tilt angle)	0 °C to +40 °C
Transport, storage	-20 °C to +60 °C
Degree of protection	
Front	IP65
IP (at the front)	IP65
Rear	IP20
IP (rear)	IP20
Certifications & standards	
Certifications	CE, FM Class I Div. 2, UL, CSA

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I/O / Options	
I/O devices	Printer
Interfaces	
Interfaces	TTY optional, 2 x RS232, 1 x RS422, 1 x RS485 (max. 12 Mbit/s)
Number of interfaces/according to RS 485	1
Transmission rate, max.	12 Mbit/s
CF card slot	1 x CF card slot
Operating systems	
Operating system	Windows CE
other	
free hotline	Yes
Warranty period	1 a
Processor	
Processor	RISC 32-bit, 66 MHz
Processor type	RISC 32-bit
Drives	
Design of drive/storage medium, CD-ROM	No
Design of drive/storage medium, diskette	No
Design of drive/storage medium, hard disk	No
Functionality under ProTool	
Applications/options	None
Alarm clock	Yes
Clean screen	Yes
Number of levels for password protection	9
Help system	Yes
Number of info. texts	35
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of tooltips	0
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Status/control	Not possible
Message system	
Number of operating messages	1000

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Memory requirement for first unit	1144 byte
Memory requirement for each additional unit	224 byte
Number of fault messages	1000
Memory requirement for first unit	1144 byte
Memory requirement for each additional unit	224 byte
System messages	Yes
Message length (lines x characters)	1 x 70
Number of process values in messages	8
Number of acknowledgement groups	99
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes
Message buffer	Ring buffer (n x 128 entries)
Recipes	
Number of recipes	100
Memory requirement for first unit	5024 byte
Memory requirement for each additional unit	3177 byte
Number of data records per recipe	200
Memory requirement for first unit	816 byte
Memory requirement for each additional unit	65 byte
Number of entries per data record	200
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Recipe memory	32 KB integrated Flash, expandable
Number of process images	
Number of process images	100
Memory requirement for first unit	40440 byte
Memory requirement for each additional unit	123 byte
Number of variables	1000
Number of variables of Date & Time type	1000
Number of variables of Internal Variable type	1000
Number of initial values	1000
Limit values	Yes
Multiplexing	Yes
Image elements	

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Text objects	2,000 text elements
Number of fields per screen	0
Number of variables per screen	50
Permanent window/default	Y
Image selection via PLC	Yes
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Yes
Graphics object	Bit maps, icons, background images, vector graphics
Number of icons	500
Memory requirement for first unit	270 byte
Memory requirement for each additional unit	270 byte
Number of screen filling icons	50
Memory requirement for first unit	9200 byte
Memory requirement for each additional unit	8300 byte
dynamic objects	Diagrams, bar graphs, invisible buttons
Number of objects per project	500
Number per image	5
Memory requirement for first unit	832 byte
Memory requirement for each additional unit	660 byte
Number of curves per diagram	8
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	280 byte
Write direction	horizontal
vertical	No
Online operation of trends	Compress / shift
trigger	Bit
Methods	Trend
Limit value lines	Yes
Number of bars per chart	5
Direction	vertical / horizontal
Limit value lines	Yes
Number of alphanumerical fields	1000
Number of alphanumerical fields per screen	100

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Memory requirement for first unit	480 byte
Memory requirement for each additional unit	260 byte
Number of numerical fields	1000
Number of numerical fields per screen	100
Memory requirement for first unit	480 byte
Memory requirement for each additional unit	260 byte
Number of date and time fields	30
Memory requirement for first unit	304 byte
Memory requirement for each additional unit	188 byte
Number of password fields	1000
Memory requirement for first unit	552 byte
Memory requirement for each additional unit	204 byte
Number of slides per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of analog indicators per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of visible switches per project	1000
Number of visible switches per screen	100
Memory requirement for first unit	1296 byte
Memory requirement for each additional unit	864 byte
Number of invisible switches per screen	100
Memory requirement for first unit	816 byte
Memory requirement for each additional unit	504 byte
Number of status switches per project	1000
Number of buttons for state switches per screen	100
Memory requirement for first unit	1248 byte
Memory requirement for each additional unit	712 byte
Number of selector switches per project	1000
Number of selector switches per screen	100
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of decade switches per project	0
Number of decade switches per screen	0

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Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of signal lamps per project	1000
Number of indicator lights per screen	100
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
Lists	
Number of text lists per project	300
Number of text lists per image	10
Memory requirement for first unit	5752 byte
Memory requirement for each additional unit	2036 byte
Number of entries per project	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of graphics lists per project, max.	100
Number of graphic lists per image, max.	10
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries per project	255
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Libraries	Yes
Data carrier support	
PC card	No
CF card	Yes
Multi Media Card	N
SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No

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DVD/CD-ROM	No
Recording	
Recording/Printing	Alarms, hardcopy
Printer driver	ESC/P2, PCL3/PCL6
Character sets	
Keyboard character sets	US American
Languages	
Number of online languages	5
Number of online languages per project	32
Memory requirement for first unit	19080 byte
Memory requirement for each additional unit	22594 byte
Configuration languages	D, GB, F, I, E, CHN "traditional", CHN "simplified", DK, FIN, GR, J, KP / ROK, NL, N, PL, P, RUS, S, CZ / SK, TR, h
Character sets	Tahoma, Arial, symbol languages, all freely scalable
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP (where available), serial, automatic transfer recognition
Download	
optional software	Y
Operating system update	Y
Process coupling	
Connection to controller	S5, S7-200, S7- 300/400, TI 505, Win AC, SINUMERIK, SIMOTION, Allen Bradley (DF1), Mitsubishi (FX), Telemecanique (ADJUST), Modicon (Modbus), for further non-Siemens drivers, see section on "System interfaces"
S5	Yes
serial	Yes
PROFIBUS DP	Yes
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	No
MPI	Yes
PROFIBUS DP	Yes
S7-300/400	Yes
MPI	Yes

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PROFIBUS DP	Yes
PROFINET IO	No
TI 505	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DH485)	No
Point-to-point	No
Network	No
Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	No
Mitsubishi (MP4)	Yes
Point-to-point	Yes
Network	No
Telemechanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	Yes
OMRON (LINK/Multilink)	No
Point-to-point	No
Network	No
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	Yes
Functions	
Key repeat	No
TAB sequence	Yes

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Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
Booting via external memory	No
Service tools/configuration aids	
Touch calibration	Yes
Backup/restore	Yes
Simulation	Yes
Language tool	No
System messages Edit	No
Device switchover	Yes
Delta transfer	Yes
Monitoring the battery, memory,...	No
Trace (operation archive)	No
Expandability/openness	
Open Platform Program (OPP)	Yes
Functionality under WinCC flexible	
Task planner	Yes
Help system	Yes
Number of info. texts	70
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of tooltips	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Status/control	Not possible
Message system	
Number of messages	2000
Bit messages	Yes
Analog messages	Yes
Number of bit messages	2000
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of analog messages	2000

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Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of alarm classes	32
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Telegram message procedure Alarm S	No
System messages HMI	Yes
System messages PLC	No
System messages, other (Sinumerik, Simotion,..)	No
Message length (in characters)	80
Lines	1
Number of process values per message	8
Acknowledgment groups	99
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes
Message buffer	Ring buffer (n x 128 entries)
Recipes	
Recipes	100
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Data records per recipe	200
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Entries per data record	200
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Recipe memory	32 KB integrated Flash, expandable
Number of process images	
Process images	100
Variables	1000
Type Date & Time	1000
Number of internal variable	1000
Initial values	1000
Limit values	Yes

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Multiplexing	Yes
Structs	No
Image elements	
Text objects	2,000 text elements
Fields per image	0
Variables per image	50
Permanent window/default	Yes
Image selection via PLC	Yes
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Y
Graphics object	Bit maps, icons, icon (full-screen)
Icons	500
Memory requirement for first unit	270 byte
Memory requirement for each additional unit	270 byte
Icon (full screen)	50
Memory requirement for first unit	9200 byte
Memory requirement for each additional unit	8300 byte
dynamic objects	Diagrams, bar graphs, invisible buttons
Number of objects per project	500
Number per image	5
Memory requirement for first unit	832 byte
Memory requirement for each additional unit	660 byte
Write direction	horizontal
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	280 byte
Online operation of trends	Compress / shift
trigger	Bit / time
Methods	Trend
Limit value lines	Yes
Number of bars per chart	5
Memory requirement for first unit	664 byte
Memory requirement for each additional unit	392 byte
Direction	vertical / horizontal

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Limit value lines	Yes
alphanumeric fields	1000
alphanumeric fields per image	100
Memory requirement for first unit	480 byte
Memory requirement for each additional unit	260 byte
numerical fields	1000
numerical fields per image	100
Memory requirement for first unit	480 byte
Memory requirement for each additional unit	260 byte
Date and time field	30
Memory requirement for first unit	304 byte
Memory requirement for each additional unit	188 byte
Password errors	1000
Memory requirement for first unit	552 byte
Memory requirement for each additional unit	204 byte
Number of slides per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of analog indicators per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of visible switches per project	1000
visible switches per image	100
Memory requirement for first unit	1296 byte
Memory requirement for each additional unit	864 byte
hidden switches per image	100
Memory requirement for first unit	816 byte
Memory requirement for each additional unit	504 byte
Number of status switches per project	1000
Button status switches per image	100
Memory requirement for first unit	1248 byte
Memory requirement for each additional unit	712 byte
Number of selector switches per project	1000
Selector switches per image	100
Memory requirement for first unit	0 byte

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Memory requirement for each additional unit	0 byte
Number of decade switches per project	0
Decade switches per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of signal lamps per project	1000
Signal lamps per image	100
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
Lists	
Text lists	300
Number of text lists per image	10
Memory requirement for first unit	5752 byte
Memory requirement for each additional unit	2036 byte
Number of entries in text lists	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Graphics list	100
Number of graphic lists per image	10
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries in graphics lists	255
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Libraries	Yes
Security	
Number of user groups	10
Passwords exportable	Yes
Data carrier support	
PC card	No

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CF card	Yes
Multi Media Card	No
SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No
CD-ROM	No
Recording	
Recording/Printing	Alarms, report (shift report)
Printer driver	ESC/P2, PCL3/PCL6
Fonts	
Keyboard fonts	US American (English)
Languages	
Online languages	5
Languages per project	32
Memory requirement for first unit	19080 byte
Memory requirement for each additional unit	22594 byte
Configuration languages	D, GB, F, I, E, CHN "traditional", CHN "simplified", DK, FIN, GR, J, KP / ROK, NL, N, PL, P, RUS, S, CZ / SK, TR, H
Character sets	Tahoma, symbol languages, all freely scalable
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP, serial, automatic transfer recognition
Process coupling	
Connection to controller	S5, S7-200, S7- 300/400, TI 505, Win AC, SINUMERIK, SIMOTION, Allen Bradley (DF1), Mitsubishi (FX), Telemecanique (ADJUST), Modicon (Modbus), for further non-Siemens drivers, see section on "System interfaces"
S5	Yes
serial	Yes
PROFIBUS DP	Yes
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	No
MPI	Yes

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PROFIBUS DP	Yes
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	Yes
PROFINET	No
TI 505	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF485)	No
Point-to-point	No
Network	No
Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	No
Mitsubishi (MP4)	Yes
Point-to-point	Yes
Network	No
Telemechanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	Yes
OMRON (LINK/Multilink)	No
Point-to-point	No
Network	No
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	Yes

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Functions	
Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
Service tools/configuration aids	
Clean screen	Yes
Touch calibration	Yes
Backup/restore	Yes
Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
Monitoring function for battery and memory	Yes
Trace (operation archive)	No
Expandability/openness	
Open Platform Program	Yes
Mechanics	
Type of housing (front)	Plastic
Mounting technology	Clamp terminals
Dimensions	
Front of enclosure (W x H)	212 mm x 156 mm
Mounting cutout/Device depth (W x H/D) in mm	198 mm x 142 mm / 45 mm device depth
Dimensions and weight	
Weight	
Weight	0.7 kg
Status	Mar 12, 2010

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