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**Product data sheet**
**6AV6545-0BA15-2AX0**


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**SIMATIC TOUCH PANEL TP170A BLUE MODE STN-DISPLAY MPI/PROFIBUS-DP INTERFACE  
CONFIGURABLE W. PROTOOL/LITE FROM VERSION V5.2 PRODUCT CANCELLATION FROM 04-01-08.  
SUCCESSOR: TP177A OR TP177B**

Supply voltage	
Supply voltage	24 V DC
permissible range	+18 V to +30 V DC
Type of voltage	DC
Rated current	0.24 A
UPS connectable (serial)	No
Backup battery	
Backup battery	No
minimum backup duration	0 a
Memory	
Type	Flash / RAM
Usable memory for user data	320 KB of usable memory for user data / no user memory for options
Time of day	
Clock	
Type	Software clock, 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"
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	
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, NEMA 4, (when installed)
IP (at the front)	IP65
NEMA	NEMA 4

Rear	IP20
IP (rear)	IP20
Certifications & standards	
Certifications	CE, FM Class I Div. 2, UL, CSA, cULus, NEMA 4
I/O / Options	
I/O devices	None
Type of output	
Info LED	No
Power LED	No
Error LED	No
LED colors	None
Interfaces	
Interfaces	TTY optional, 1 x RS232, 1 x RS422, 1 x RS485 (max. 1.5 Mbit/s)
Number of interfaces/according to RS 485	1
Transmission rate, max.	1.5 Mbit/s
PC card slot	No
CF card slot	No
USB	No
Operating systems	
Operating system	Windows CE
other	
free hotline	Yes
Warranty period	1 a
Processor	
Processor	RISC 32-bit
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	No
Clean screen	Yes

Number of levels for password protection	2
Help system	No
Number of info. texts	0
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
Memory requirement for first unit	8064 byte
Memory requirement for each additional unit	233 byte
Number of fault messages	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
System messages	Yes
Message length (lines x characters)	1 x 70
Number of process values in messages	8
Number of acknowledgement groups	0
Message indicator	No
Acoustic feedback	No
First/last value	No
Message buffer	No
Recipes	
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of process images	
Number of process images	50
Memory requirement for first unit	48160 byte
Memory requirement for each additional unit	115 byte
Number of variables	500
Number of variables of Date & Time type	500
Number of variables of Internal Variable type	500
Number of initial values	500

Limit values	Yes
Image elements	
Text objects	1,000 text elements
Number of fields per screen	20
Number of variables per screen	20
Permanent window/default	N
Image selection via PLC	No
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Yes
Graphics object	Bit maps, icons, background images
Number of icons	200
Memory requirement for first unit	270 byte
Memory requirement for each additional unit	270 byte
Number of screen filling icons	30
Memory requirement for first unit	10500 byte
Memory requirement for each additional unit	9400 byte
dynamic objects	Bar graphs
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of bars per chart	5
Direction	vertical / horizontal
Limit value lines	Yes
Number of alphanumerical fields	500
Number of alphanumerical fields per screen	20
Memory requirement for first unit	528 byte
Memory requirement for each additional unit	304 byte
Number of numerical fields	500
Number of numerical fields per screen	20
Memory requirement for first unit	528 byte
Memory requirement for each additional unit	304 byte
Number of date and time fields	20
Memory requirement for first unit	984 byte
Memory requirement for each additional unit	392 byte

Number of password fields	500
Memory requirement for first unit	528 byte
Memory requirement for each additional unit	304 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	200
Number of visible switches per screen	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of invisible switches per screen	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of status switches per project	200
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Lists	
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Libraries	Yes
Recording	
Recording/Printing	Not possible
Character sets	
Keyboard character sets	US American
Languages	
Number of online languages	1
Number of online languages per project	32
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 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 (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, Allen Bradley (DF1), Allen Bradley (DH485), Mitsubishi (FX), Telemecanique (ADJUST), OMRON (LINK/Multilink), 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	Yes
MPI	Yes
PROFIBUS DP	Yes
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	Yes
PROFINET IO	No
TI 505	Yes
Point-to-point	Yes
Network	No
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DH485)	Yes
Point-to-point	Yes
Network	Yes

Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	Yes
Mitsubishi (MP4)	No
Point-to-point	No
Network	No
Telemecanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	No
OMRON (LINK/Multilink)	Yes
Point-to-point	Yes
Network	Yes
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	No
Functions	
Key repeat	No
TAB sequence	Yes
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)	No
Functionality under WinCC flexible	
Number of Visual Basic Scripts	Not possible
Debugging in the simulator	No
Task planner	No
Help system	No
Number of info. texts	0
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	1000
Bit messages	Yes
Analog messages	No
Number of bit messages	1000
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of analog messages	0
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	Yes
Message indicator	No
Acoustic feedback	No
First/last value	Yes
Message buffer	Ring buffer (n x 128 entries), non-retentive
Recipes	
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of process images	
Process images	250
Variables	500
Limit values	Yes
Multiplexing	No
Structs	No
Image elements	
Text objects	1,000 text elements
Fields per image	20
Variables per image	20
Permanent window/default	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	1000
Memory requirement for first unit	1144 byte
Memory requirement for each additional unit	1345 byte
Icon (full screen)	1
Memory requirement for first unit	12000 byte
Memory requirement for each additional unit	11600 byte
dynamic objects	Bar graphs
Number of objects per project	1250

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Memory requirement for first unit	10 byte
Memory requirement for each additional unit	284 byte
Number of bars per chart	5
Memory requirement for first unit	644 byte
Memory requirement for each additional unit	364 byte
Direction	vertical / horizontal
Limit value lines	Yes
alphanumeric fields	0
alphanumeric fields per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
numerical fields	0
numerical fields per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Date and time field	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Password errors	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 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	0
visible switches per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
hidden switches per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of status switches per project	0

Button status switches per image	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Number of selector switches per project	0
Selector switches per image	0
Memory requirement for first unit	0 byte
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	0
Signal lamps per image	0
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Attributes for dynamic objects	
Color change	No
X/Y movement	No
Hide	Yes
Angle of turn	No
Lists	
Text lists	0
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Graphics list	0
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Libraries	Yes
Security	
Passwords exportable	Yes
Number of users	1
Recording	
Recording/Printing	-
Printer driver	-
Fonts	

Keyboard fonts	US American (English)
Languages	
Online languages	5
Languages per project	32
Memory requirement for first unit	23420 byte
Memory requirement for each additional unit	26820 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, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), 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	Yes
MPI	Yes
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)	Yes
Point-to-point	Yes
Network	Yes
Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	Yes
Mitsubishi (MP4)	No
Point-to-point	No
Network	No
Telemecanique (ADJUST)	No
Point-to-point	No
Network	No
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	No
OMRON (LINK/Multilink)	Yes
Point-to-point	Yes
Network	Yes
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	No
Functions	
Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	No
Menu tree editor	No
Unit switchover	No
Service tools/configuration aids	
Clean screen	Yes
Touch calibration	Yes
Backup/restore	Yes

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Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
Monitoring function for battery and memory	No
Trace (operation archive)	No
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