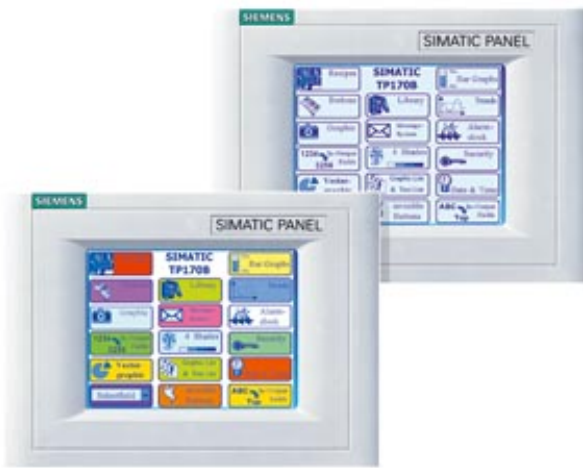


# SIEMENS

## 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



<b>Display</b>	
Design of display	STN
Size	5.7"
Screen diagonal	5.7 in
Display type	STN, 4 Blaustufen
Color type	Blue levels
<b>Resolution (pixels)</b>	
Resolution (WxH in pixel)	320 x 240
<b>Backlighting</b>	
MTBF backlighting (at 25 °C)	about 50,000 hours
<b>Control elements</b>	
Control elements	Touch screen
<b>Operating mode</b>	
Operating options	Touch
Connection for mouse/keyboard/barcode reader	- / - / -

external mouse	-
<b>Keyboard</b>	
external keyboard	-
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	No
<b>Touch operation</b>	
Touch screen	analog, resistive
<b>Barcode reader</b>	
Connection for barcode reader	-
<b>Expansions for operator control of the process</b>	
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
<b>Supply voltage</b>	
<b>Input voltage</b>	
Type of voltage	DC
permissible range	+18 V to +30 V DC
Supply voltage	24 V DC
<b>Input current</b>	
Rated current	0.25 A
<b>[nicht versorgt: TAK_ABS802_001_000]</b>	
Power	6 W
<b>Processor</b>	
Processor	RISC 32-bit, 66 MHz
Processor type	RISC 32-bit
<b>Memory</b>	
Type	Flash / RAM
Usable memory for user data	768 KB usable memory for user data
<b>Drives</b>	
Diskette drive	No
CD-ROM	No
Hard disk	No

<b>Time of day</b>	
<b>Clock</b>	
Type	Software clock, synchronizable, no battery backup
<b>Interfaces</b>	
Interfaces	TTY optional, 2 x RS232, 1 x RS422, 1 x RS485 (max. 12 Mbit/s)
CF card slot	1 x CF card slot
Number of RS 485 interfaces	1
Transmission rate, max.	12 Mbit/s
<b>Ambient conditions</b>	
<b>Operating temperature</b>	
Operation (vertical installation)	0 °C to +50 °C
Operation (max. tilt angle)	0 °C to +40 °C
<b>Storage/transport temperature</b>	
Transport, storage	-20 °C to +60 °C
<b>Relative humidity</b>	
max. relative humidity	85 %
<b>Mounting position</b>	
maximum permissible angle of inclination without external ventilation	+/- 35 °
<b>Degree and class of protection</b>	
Front	IP65
IP (at the front)	IP65
Rear	IP20
IP (rear)	IP20
<b>Standards, approvals, certificates</b>	
Certifications	CE, FM Class I Div. 2, UL, CSA
<b>Operating systems</b>	
Operating system	Windows CE
<b>Configuration</b>	
<b>Configuration software</b>	
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
<b>Functionality under ProTool</b>	
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
<b>With alarm logging system (incl. buffer and acknowledgment)</b>	
Number of operating messages	1000
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)
<b>Recipes</b>	
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
<b>Number of process images</b>	
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
<b>Image elements</b>	
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
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
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
<b>Attributes for dynamic objects</b>	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
<b>Lists</b>	
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
<b>Data carrier support</b>	
PC card	No
CF card	Yes
Multi Media Card	N
SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No
DVD/CD-ROM	No
<b>Recording</b>	



Recording/Printing	Alarms, hardcopy
Printer driver	ESC/P2, PCL3/PCL6
<b>Character sets</b>	
Keyboard character sets	US American
<b>Languages</b>	
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
<b>Transfer (upload/download)</b>	
Transfer of configuration	MPI/PROFIBUS DP (where available), serial, automatic transfer recognition
<b>Download</b>	
optional software	Y
Operating system update	Y
<b>Process coupling</b>	
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

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
Telemecanique (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
<b>Functions</b>	

Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
Booting via external memory	No
<b>Service tools/configuration aids</b>	
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
<b>Expandability/openness</b>	
Open Platform Program (OPP)	Yes
<b>Functionality under WinCC flexible</b>	
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
<b>With alarm logging system (incl. buffer and acknowledgment)</b>	
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
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)
<b>Recipes</b>	
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
<b>Number of process images</b>	

Process images	100
Variables	1000
Type Date & Time	1000
Number of internal variable	1000
Initial values	1000
Limit values	Yes
Multiplexing	Yes
Structs	No
<b>Image elements</b>	
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
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
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
<b>Attributes for dynamic objects</b>	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
<b>Lists</b>	
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
<b>Security</b>	
Number of user groups	10
Passwords exportable	Yes
<b>Data carrier support</b>	
PC card	No
CF card	Yes
Multimedia Card	No
SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No
CD-ROM	No
<b>Recording</b>	
Recording/Printing	Alarms, report (shift report)
Printer driver	ESC/P2, PCL3/PCL6
<b>Fonts</b>	
Keyboard fonts	US American (English)
<b>Languages</b>	
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
<b>Transfer (upload/download)</b>	



Transfer of configuration	MPI/PROFIBUS DP, serial, automatic transfer recognition
<b>Process coupling</b>	
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"
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	No
MPI	Yes
PROFIBUS DP	Yes
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	Yes
PROFINET	No
S5	Yes
serial	Yes
PROFIBUS DP	Yes
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

Telemecanique (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
<b>Functions</b>	
Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
<b>Service tools/configuration aids</b>	
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
<b>Expandability/openness</b>	
Open Platform Program	Yes

<b>I/O / Options</b>	
I/O devices	Printer
<b>Mounting</b>	
Mounting technology	Clamp terminals
<b>Mechanics/material</b>	
Type of housing (front)	Plastic
<b>Dimensions and weight</b>	
<b>Dimensions</b>	
Front of enclosure (W x H)	212 mm x 156 mm
Mounting cutout/device depth (W x H / D)	198 mm x 142 mm / 45 mm device depth
<b>Weight</b>	
Weight	0.7 kg
<b>other</b>	
free hotline	Yes
Warranty period	1 a
Status	May 23, 2011