

6AV6642-0BA01-1AX0

TP177B PN/DP COLOR

Technical data

*** SPARE PART*** SIMATIC TOUCHPANEL TP177B PN/DP STN 265 COLOR-DISPLAY
MPI-/PROFIBUS-DP - PROTOCOL RS485-/RS422-/USB - INTERFACE ETHERNET10/100
INTERFACE PRINTER - INTERFACE SLOT FOR MM-CARD CONFIGURABLE WITH
WINCC FLEXIBLE 2005

Display

Design of display	STN
Screen diagonal	5.7 in
Color display	Yes
Number of colors	256
Resolution (pixels)	
• Horizontal image resolution	320 Pixel
• Vertical image resolution	240 Pixel

Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h

Control elements

Control elements	Touch screen
Keyboard fonts	
• System keys	Yes
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
• Multi-key operation	No

Touch operation	
• Design as touch screen	Yes; analog, resistive

Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / -

Installation type/mounting

Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°

Processor

Processor type	RISC 32 bit, 200 MHz
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Memory

Type of memory	Flash / RAM
Memory available for user data	2 048 kbyte

Time of day

Clock	
• Type	Hardware clock, synchronizable, no battery backup
• retentive	No
• synchronizable	Yes

Interfaces

Interfaces/bus type	RS 232 optional, 1x RS 422, 1x RS 485, 1x Ethernet (RJ45) (max. 12 Mbit/s)
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1
Number of USB interfaces	1; Up to 1 GB
CF card slot	No
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB

Degree and class of protection

IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	NEMA 4, NEMA 4x, NEMA 12 (when installed)

Standards, approvals, certificates

Certificate of suitability	CE, GL, ABS, BV, DNV, LRS, PRS, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2/22, Gost-R, C-TICK, NEMA 4, NEMA 4x, NEMA 12
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cULus	Yes
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Use in hazardous areas	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• FM Class I Division 2	Yes

Marine approval	
• Germanischer Lloyd (GL)	Yes

• American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Polski Rejestr Statkow (PRS)	Yes

Ambient conditions

Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C

Relative humidity	
• Operation, max.	90 %

Operating systems

pre-installed operating system	Windows CE
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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	
• Configuration tool	WinCC flexible Compact Version 2005 or higher (to be ordered separately)

Languages

Online languages	
• Number of online/runtime languages	16

Project languages	
• Languages per project	32

Functionality under WinCC (TIA Portal)

Libraries	Yes
Task planner	Yes
Help system	Yes
• Number of characters per info text	70

Message system	
• Number of alarm classes	32
• Number of messages	2 000
• Bit messages	Yes
— Number of bit messages	2 000
• Analog messages	Yes
— Number of analog messages	2 000
• System messages HMI	Yes
• System messages PLC	Yes
• Lines	1
• Number of characters per message	80
• Number of process values per message	8
• Acknowledgment groups	
— Number of acknowledgement groups	99
• Message indicator	Yes
• acoustic feedback	No
• First/last value	Yes

Recipe management	
• Number of recipes	100
• Data records per recipe	200
• Entries per data record	200
• Recipe memory	32 KB integrated Flash, expandable

Variables	
• Number of variables per device	1 000
• Number of variables per screen	50
• Number of variables	1 000
• Initial values	1 000
• Type Date & Time	1 000
• Limit values	Yes
• Multiplexing	Yes
• Structures	No

Images	
• Number of configurable images	500
• Permanent window/default	Yes
• Start screen configurable	Yes
• Image selection by PLC	Yes
• Image number in the PLC	Yes

Image objects	
• Text objects	2 500 text elements
• Number of I/O fields per image	50
• Number of date/time fields	30
• Index of screen context	No

• Return	Yes
• Graphics object	Bit maps, icons, icon (full-screen), vector graphics
— Icons	500
— Icon (full screen)	50
Complex image objects	
• Status/control	With SIMATIC S7
• dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
— Number of objects per project	500
— Number of curve diagrams per image	5
• Methods	Trend
• Bar graphs	
— Number of bars per chart	5
• Sliders	
— Number of slides per image	0
• Pointer instruments	
— Number of analog indicators per image	0
• Limit value lines	Yes
• Number of alphanumerical fields	1 000
— alphanumeric fields per image	100
• Number of numerical fields	1 000
— numerical fields per image	100
• Number of password fields	1 000
• Number of visible switches per project	1 000
— visible switches per image	100
— hidden switches per image	100
• Number of status switches per project	1 000
— Number of status switches per image	100
• Number of selector switches per project	1 000
— Selector switches per image	100
• Number of decade switches per project	0
— Decade switches per image	0
• Number of signal lamps per project	1 000
— Signal lamps per image	100
Attributes for dynamic objects	
• Color change	Yes
• X/Y movement	Yes
• Hide	Yes
• Angle of rotation	No
Lists	
• Number of text lists per project	300
• Number of text lists per image	10
• Number of entries per text list	30
• Number of graphics lists per project	100
• Number of graphic lists per image	10
• Number of entries per graphics list	30
Security	
• Number of user groups	50
• Number of user rights	32
• Password export/import	Yes
Data carrier support	
• PC card	No
• CF card	No
Logging through printer	
• Recording/Printing	Alarms, report (shift report), color print, hardcopy
Transfer (upload/download)	
• Transfer of configuration	MPI/PROFIBUS DP, serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition
Process coupling	
• Connection to controller	S5, S7-200, S7-300/400, Win AC, PC (TCP/IP), SINUMERIK, SIMOTION, Allen Bradley (DF1), Mitsubishi (FX), Telemecanique (ADJUST), Modicon (Modbus), further non-Siemens drivers, see chapter "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	Yes
• S5	Yes; only PROFIBUS DP
— serial	No
— PROFIBUS DP	Yes
• TI 505	No

• Allen Bradley (DF1)	Yes
• Allen Bradley (DF485)	No
• Mitsubishi (FX)	Yes
• Telemecanique (ADJUST)	Yes
• OMRON (LINK/Multilink)	No
• Modicon (Modbus)	Yes
Functions	
• Key repeat	No
• TAB sequence	Yes
• Calculating functions	Yes
• Animate	Yes
• Menu tree editor	Yes
• Unit switchover	No
Service tools/configuration aids	
• Clean screen	Yes
• Touch calibration	Yes
• Backup/Restore manually	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
Peripherals/Options	
Peripherals	Printer
SIMATIC HMI MM memory card: Multi Media Card	Yes
Additional software components loadable	Yes
Dimensions	
Width of the housing front	212 mm
Height of housing front	156 mm
Overall depth	46 mm
Weights	
Weight (without packaging)	0.8 kg
Other	
free hotline	Yes
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