

Spare part as of 01.01.2015 the product is blocked for delivery and can no longer be ordered as a new part. For information on the successor See FAQ Entry ID: 82203106. For further questions, the familiar contact partners are available. SIPLUS HMI TP 177B color PN/DP for medial exposure based on 6AV6642-0BA01-1AX1



General information

Product type designation	TP 177B 6" PN/DP
Customer-specific configuration	Yes

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 / USB
Installation type/mounting	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Input current	
Current consumption (rated value)	0.24 A
Starting current inrush I _{st}	0.5 A ² ·s
Processor	
Processor type	ARM, 200 MHz
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
PC card slot	No
CF card slot	No
Multimedia card/SD card slot	combined
Protocols	
Protocols (terminal link)	
• Sm@rtServer	Yes

Degree and class of protection	
IP (at the front)	IP65
NEMA (front)	NEMA 4x, NEMA 12 (when installed)
IP (rear)	IP20
Standards, approvals, certificates	
Certifications	CE
cULus	No
EAC (formerly Gost-R)	No
Suitable for safety functions	No
Use in hazardous areas	
• ATEX Zone 2	No
• ATEX Zone 22	No
• FM Class I Division 2	No
Marine approval	
• Germanischer Lloyd (GL)	No
• American Bureau of Shipping (ABS)	No
• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	No
• Lloyds Register of Shipping (LRS)	No
• Polski Rejestr Statkow (PRS)	No
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C; = Tmin
• max.	50 °C; = Tmax
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Altitude during operation relating to sea level	
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 incl. salt spray. The supplied connector covers must remain on the unused interfaces during operation!

— to mechanically active substances
according to EN 60721-3-3

Yes; Class 3S4 incl. sand, dust. The supplied connector covers
must remain on the unused interfaces during operation!

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	5
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
- Number of messages
- Bit messages
 - Number of bit messages
- Analog messages
 - Number of analog messages
- Telegram message procedure Alarm S
- System messages HMI
- System messages PLC
- System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)
- Lines
- Number of characters per message
- Number of process values per message
- Acknowledgment groups
 - Number of acknowledgement groups
- Message indicator

32
2 000
Yes
2 000
Yes
50
No
Yes
Yes
No
1
80
8
99
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 • Limit value lines • Number of alphanumeric fields — alphanumeric fields per image • Number of numerical fields — numerical fields per image • Number of password fields • Number of visible switches per project — visible switches per image — hidden switches per image • Number of status switches per project — Number of status switches per image • Number of selector switches per project — Selector switches per image • Number of decade switches per project — Decade switches per image • Number of signal lamps per project — Signal lamps per image	0 Yes 1 000 100 1 000 100 1 000 1 000 100 100 1 000 100 1 000 100 0 0 1 000 100
Attributes for dynamic objects	
• Color change • X/Y movement • Hide • Angle of rotation	Yes Yes Yes No
Lists	
• Number of text lists per project • Number of text lists per image • Number of entries per text list • Number of graphics lists per project • Number of graphic lists per image • Number of entries per graphics list	300 10 30 100 10 30
Security	
• Number of user groups • Number of user rights • Password export/import	50 32 Yes
Data carrier support	
• PC card • CF card	No 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	No
• 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	44 mm
Weights	
Weight (without packaging)	0.8 kg
Other	
free hotline	Yes
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