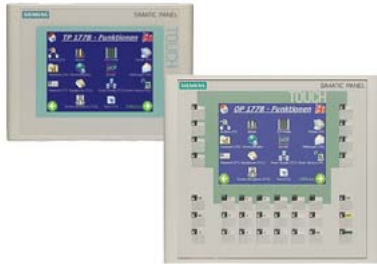


*** spare part *** SIMATIC TP 177B 6" PN/DP STN 256 color display
 MPI/PROFIBUS DP protocol RS485/RS422/USB interface Ethernet 10/100
 interface printer interface slot for MMC configurable with WinCC flexible 2005



| General information | |
|---|------------------------|
| Product type designation | TP177B 6" PN/DP Color |
| 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 ² t | 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 | |
| <ul style="list-style-type: none"> Type retentive synchronizable | <p>Hardware clock, synchronizable, no battery backup</p> <p>No</p> <p>Yes</p> |
| 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 |
| PC card slot | No |
| CF card slot | No |
| Multimedia card/SD card slot | combined, from E-status 016 in connection with WinCC flexible 2008 SP1, MMC max. 128 MB / SD max. 512 MB |
| With software interfaces | No |
| Protocols | |
| Supports protocol for PROFINET IO | Yes |
| PROFIsafe | No |
| PROFIBUS | Yes |
| EtherNet/IP | Yes |
| Protocols (Ethernet) | |
| <ul style="list-style-type: none"> TCP/IP | Yes |
| Protocols (terminal link) | |
| <ul style="list-style-type: none"> Sm@rtServer | Yes |
| Further protocols | |
| <ul style="list-style-type: none"> MODBUS | Yes |
| Degree and class of protection | |
| IP (at the front) | IP65 |
| IP (rear) | IP20 |
| NEMA (front) | NEMA 4x, NEMA 12 (when installed) |
| Standards, approvals, certificates | |
| CE mark | Yes |
| UL approval | Yes |
| cULus | Yes |
| EAC (formerly Gost-R) | No |
| Suitable for safety functions | No |
| Use in hazardous areas | |
| <ul style="list-style-type: none"> ATEX Zone 2 ATEX Zone 22 FM Class I Division 2 | <p>No; certificate no longer available as of 1 October 2020</p> <p>No; certificate no longer available as of 1 October 2020</p> <p>Yes</p> |
| Marine approval | |
| <ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) Lloyds Register of Shipping (LRS) Polski Rejestr Statkow (PRS) | <p>Yes; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> <p>Yes; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> <p>Yes; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> <p>Yes; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> <p>Yes; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> <p>No; only valid up to and including the HW release (see MLFB release notes in SIOS)!</p> |
| Ambient conditions | |
| Ambient temperature during operation | |
| <ul style="list-style-type: none"> min. max. | <p>0 °C</p> <p>50 °C</p> |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> min. max. | <p>-20 °C</p> <p>60 °C</p> |
| Relative humidity | |
| <ul style="list-style-type: none"> Operation, max. | 90 % |

| Operating systems | |
|--|--|
| pre-installed operating system | Windows CE |
| configuration / header | |
| 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) |
| • STEP 7 Basic (TIA Portal) | No |
| • STEP 7 Professional (TIA Portal) | No |
| • WinCC flexible Compact | Yes |
| • WinCC flexible Standard | Yes |
| • WinCC flexible Advanced | Yes |
| • WinCC Basic (TIA Portal) | No |
| • WinCC Comfort (TIA Portal) | Yes |
| • WinCC Advanced (TIA Portal) | Yes |
| • WinCC Professional (TIA Portal) | Yes |
| 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 | 32 |
| • Number of messages | 2 000 |
| • Bit messages | Yes |
| — Number of bit messages | 2 000 |
| • Analog messages | Yes |
| — Number of analog messages | 50 |
| • Telegram message procedure Alarm S | No |
| • System messages HMI | Yes |
| • System messages PLC | Yes |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...) | No |
| • 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" |
| • S7-1200 | Yes |
| • S7-1500 | No |
| • S7-200 | Yes |
| — PPI (point-to-point) | Yes |
| — PPI network | No |
| — product function / for process coupling / with S7-200 / for WinCC in the TIA Portal / MPI | Yes |
| — product function / for process coupling / with S7-200 / for WinCC in the TIA Portal / PROFIBUS DP | Yes |
| — Ethernet | 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) | Yes |
| • Mitsubishi (FX) | Yes |
| • Telemecanique (ADJUST) | No |
| • Telemecanique (Uni-Telway) | Yes; Only in combination with WinCC flexible |
| • OMRON (LINK/Multilink) | Yes |
| • 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 |
| Mounting cutout, width | 198 mm |
| Mounting cutout, height | 142 mm |
| Overall depth | 44 mm |
| Weights | |
| Weight (without packaging) | 0.8 kg |
| Other | |
| free hotline | Yes |

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