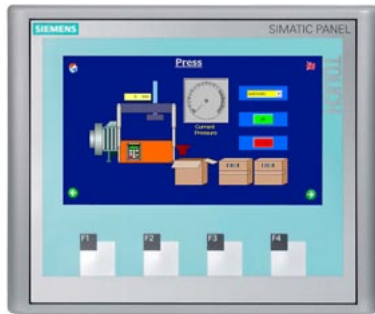




The new part, as of 01.01.2015, is blocked for delivery. Spare part can continue to be purchased as required, but price may deviate from new part. Further information under SIMATIC current entry ID: 109486162. For questions, the familiar contact persons are available to you. SIMATIC TP 177B 4" Color PN/DP TFT 256 Color-16: 9-display, MPI/PROFIBUS DP protocol RS 485/RS 422/USB interface Ethernet 10/100 interface Printer interface Slot for MMC configurable with WinCC flexible 2008

| General information                                                   |                                    |
|-----------------------------------------------------------------------|------------------------------------|
| Product type designation                                              | TP 177B 4" PN/DP                   |
| Customer-specific configuration                                       | Yes                                |
| Display                                                               |                                    |
| Design of display                                                     | TFT                                |
| Screen diagonal                                                       | 4.3 in                             |
| Color display                                                         | Yes                                |
| Number of colors                                                      | 256                                |
| Resolution (pixels)                                                   |                                    |
| • Horizontal image resolution                                         | 480 pixel                          |
| • Vertical image resolution                                           | 272 pixel                          |
| Backlighting                                                          |                                    |
| • MTBF backlighting (at 25 °C)                                        | 30 000 h                           |
| Control elements                                                      |                                    |
| Control elements                                                      | Touch screen and membrane keyboard |
| Keyboard fonts                                                        |                                    |
| • Membrane keyboard                                                   |                                    |
| — user-definable label membrane keys                                  | Yes                                |
| • Function keys                                                       |                                    |
| — Number of function keys                                             | 4                                  |
| — Number of function keys with LEDs                                   | 0                                  |
| • System keys                                                         | No                                 |
| — Number of system keys                                               | 0                                  |
| • Numeric keyboard                                                    | Yes; Onscreen keyboard             |
| • alphanumeric keyboard                                               | Yes; Onscreen keyboard             |
| • hexadecimal keyboard                                                | Yes; Onscreen keyboard             |
| • Multi-key operation                                                 | Yes                                |
| 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)                                     | 0.2 A                              |

|                                           |                                                                                                          |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Starting current inrush I <sup>2</sup> t  | 0.1 A <sup>2</sup> ·s                                                                                    |
| <b>Processor</b>                          |                                                                                                          |
| Processor type                            | RISC 32-bit, 266 MHz                                                                                     |
| <b>Memory</b>                             |                                                                                                          |
| Type of memory                            | Flash / RAM                                                                                              |
| Memory available for user data            | 2 048 kbyte                                                                                              |
| Capacity of main memory, max.             | 64 Mbyte                                                                                                 |
| <b>Time of day</b>                        |                                                                                                          |
| Clock                                     |                                                                                                          |
| • Type                                    | Hardware clock, synchronizable, no battery backup                                                        |
| • retentive                               | No                                                                                                       |
| • synchronizable                          | Yes                                                                                                      |
| <b>Interfaces</b>                         |                                                                                                          |
| 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                                                                                                       |
| <b>Protocols</b>                          |                                                                                                          |
| Supports protocol for PROFINET IO         | Yes                                                                                                      |
| PROFIsafe                                 | No                                                                                                       |
| PROFIBUS                                  | Yes                                                                                                      |
| EtherNet/IP                               | Yes                                                                                                      |
| MPI                                       | Yes                                                                                                      |
| Protocols (Ethernet)                      |                                                                                                          |
| • TCP/IP                                  | Yes                                                                                                      |
| Protocols (terminal link)                 |                                                                                                          |
| • Sm@rtServer                             | Yes                                                                                                      |
| Further protocols                         |                                                                                                          |
| • MODBUS                                  | Yes                                                                                                      |
| <b>Degree and class of protection</b>     |                                                                                                          |
| IP (at the front)                         | IP65                                                                                                     |
| IP (rear)                                 | IP20                                                                                                     |
| NEMA (front)                              | NEMA 4, NEMA 4x, NEMA 12 (when installed)                                                                |
| <b>Standards, approvals, certificates</b> |                                                                                                          |
| Certificate of suitability                | CE, GL, FM Class I Div. 2, cULus, C-TICK, NEMA 4, NEMA 4x, NEMA 12                                       |
| cULus                                     | Yes                                                                                                      |
| 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                   | Yes                                                                                                      |
| Marine approval                           |                                                                                                          |
| • Germanischer Lloyd (GL)                 | Yes                                                                                                      |
| • American Bureau of Shipping (ABS)       | No                                                                                                       |
| • Bureau Veritas (BV)                     | No                                                                                                       |
| • Det Norske Veritas (DNV)                | No                                                                                                       |
| • Lloyds Register of Shipping (LRS)       | No                                                                                                       |
| • Nippon Kaiji Kyokai (Class NK)          | No                                                                                                       |
| • Polski Rejestr Statkow (PRS)            | No                                                                                                       |
| <b>Ambient conditions</b>                 |                                                                                                          |
| Ambient temperature during operation      |                                                                                                          |
| • min.                                    | 0 °C                                                                                                     |

|                                                              |                                                                          |
|--------------------------------------------------------------|--------------------------------------------------------------------------|
| • max.                                                       | 50 °C                                                                    |
| Ambient temperature during storage/transportation            |                                                                          |
| • min.                                                       | -20 °C                                                                   |
| • max.                                                       | 60 °C                                                                    |
| Relative humidity                                            |                                                                          |
| • Operation, max.                                            | 90 %                                                                     |
| Operating systems                                            |                                                                          |
| pre-installed operating system                               | Windows CE (Version 5)                                                   |
| 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 2008 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                                  | 2 000                                                                    |
| • Telegram message procedure Alarm S                         | Yes                                                                      |
| • 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                           | Yes                                                                      |
| • 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                                                                      |