

SIMATIC HMI TP1500 Basic Color PN, Basic Panel, Touch operation, 15" TFT display, 256 colors, PROFINET interface, configurable as of WinCC flexible 2008 SP2 Compact/ WinCC Basic V10.5/ STEP 7 Basic V10.5, contains open-source software, which is provided free of charge see enclosed CD



| General information | |
|---|------------------------|
| Product type designation | TP1500 Basic color PN |
| Display | |
| Design of display | TFT |
| Screen diagonal | 15 in |
| Display width | 304.1 mm |
| Display height | 228.1 mm |
| Number of colors | 256 |
| Resolution (pixels) | |
| • Horizontal image resolution | 1 024 pixel |
| • Vertical image resolution | 768 pixel |
| Backlighting | |
| • MTBF backlighting (at 25 °C) | 50 000 h |
| • Backlight dimmable | No |
| Control elements | |
| Keyboard fonts | |
| • Function keys | |
| — Number of function keys | 0 |
| — Number of function keys with LEDs | 0 |
| • Keys with LED | No |
| • System keys | No |
| • Numeric keyboard | Yes; Onscreen keyboard |
| • alphanumeric keyboard | Yes; Onscreen keyboard |
| Touch operation | |
| • Design as touch screen | Yes; Analog-resistive |
| Installation type/mounting | |
| Mounting position | vertical |
| Rack mounting | No |
| Wall mounting/direct mounting | No |
| Mounting in portrait format possible | No |
| Mounting in landscape format possible | Yes |
| maximum permissible angle of inclination without external ventilation | 35° |
| Supply voltage | |
| Type of supply voltage | DC |
| Rated value (DC) | 24 V |
| permissible range, lower limit (DC) | 19.2 V |
| permissible range, upper limit (DC) | 28.8 V |
| Input current | |

| | |
|--|------------------------------|
| Current consumption (rated value) | 0.8 A |
| Starting current inrush I ² t | 0.2 A ² ·s |
| Power | |
| Active power input, typ. | 20 W |
| Processor | |
| Processor type | RISC 32 bit |
| Memory | |
| Flash | Yes |
| RAM | Yes |
| Memory available for user data | 2 Mbyte |
| Type of output | |
| Acoustics | |
| • Buzzer | Yes |
| • Speaker | No |
| Time of day | |
| Clock | |
| • Hardware clock (real-time) | No |
| • Software clock | Yes |
| • retentive | No |
| • synchronizable | Yes |
| Interfaces | |
| Number of industrial Ethernet interfaces | 1 |
| Number of RS 485 interfaces | 0 |
| Number of RS 422 interfaces | 0 |
| Number of RS 232 interfaces | 0 |
| Number of USB interfaces | 0 |
| Number of 20 mA interfaces (TTY) | 0 |
| Number of parallel interfaces | 0 |
| Number of other interfaces | 0 |
| Number of SD card slots | 0 |
| With software interfaces | No |
| Industrial Ethernet | |
| • Industrial Ethernet status LED | 2 |
| Protocols | |
| PROFINET | Yes |
| Supports protocol for PROFINET IO | No |
| IRT | No |
| PROFIBUS | No |
| EtherNet/IP | Yes |
| MPI | No |
| Protocols (Ethernet) | |
| • TCP/IP | Yes |
| • DHCP | Yes |
| • SNMP | Yes |
| • DCP | Yes |
| • LLDP | Yes |
| WEB characteristics | |
| • HTTP | No |
| • HTML | No |
| Further protocols | |
| • CAN | No |
| • MODBUS | Yes; Modicon (MODBUS TCP/IP) |
| Interrupts/diagnostics/status information | |
| Diagnoses | |
| • Diagnostic information readable | No |
| Degree and class of protection | |
| IP (at the front) | IP65 |
| IP (rear) | IP20 |
| NEMA (front) | |

| | |
|--|--|
| • Enclosure Type 4 at the front | Yes |
| • Enclosure Type 4x at the front | Yes |
| Standards, approvals, certificates | |
| CE mark | Yes |
| cULus | Yes |
| RCM (formerly C-TICK) | Yes |
| KC approval | Yes |
| Use in hazardous areas | |
| • ATEX Zone 2 | No |
| • ATEX Zone 22 | No |
| • cULus Class I Zone 1 | No |
| • cULus Class I Zone 2, Division 2 | 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 |
| • Nippon Kaiji Kyokai (Class NK) | No |
| • Polski Rejestr Statkow (PRS) | No |
| Ambient conditions | |
| Ambient temperature during operation | |
| Operation (vertical installation) | |
| — For vertical installation, min. | 0 °C |
| — For vertical installation, max. | 50 °C |
| Operation (max. tilt angle) | |
| — At maximum tilt angle, min. | 0 °C |
| — At maximum tilt angle, max. | 40 °C |
| Ambient temperature during storage/transportation | |
| • min. | -20 °C |
| • max. | 60 °C |
| Relative humidity | |
| • Operation, max. | 90 %; no condensation |
| Operating systems | |
| proprietary | Yes |
| pre-installed operating system | |
| • Windows CE | No |
| 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 | |
| • STEP 7 Basic (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| • STEP 7 Professional (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| • WinCC flexible Compact | Yes |
| • WinCC flexible Standard | Yes |
| • WinCC flexible Advanced | Yes |
| • WinCC Basic (TIA Portal) | Yes |
| • 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 |
| Applications/options | none |
| • Web browser | No |
| • SIMATIC WinCC Sm@rtServer | No |
| Task planner | |
| • time-controlled | No |
| • task-controlled | Yes |
| Message system | |
| • Number of alarm classes | 32 |
| • Bit messages | Yes |
| — Number of bit messages | 200 |
| • Analog messages | Yes |
| — Number of analog messages | 15 |
| • System messages HMI | Yes |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...) | No |
| • Number of characters per message | 80 |
| • Number of process values per message | 8 |
| • Message indicator | Yes |
| • Message buffer | |
| — Number of entries | 256 |
| — Circulating buffer | Yes |
| — retentive | Yes |
| — maintenance-free | Yes |
| Recipe management | |
| • Number of recipes | 5 |
| • Data records per recipe | 20 |
| • Entries per data record | 20 |
| • Size of internal recipe memory | 40 kbyte |
| • Recipe memory expandable | No |
| Variables | |
| • Number of variables per device | 500 |
| • Number of variables per screen | 30 |
| • Limit values | Yes |
| • Multiplexing | Yes |
| • Structures | No |
| • Arrays | Yes |
| Images | |
| • Number of configurable images | 50 |
| • Permanent window/default | Yes |
| • Global image | Yes |
| • Image selection by PLC | Yes |
| • Image number in the PLC | Yes |
| Image objects | |
| • Number of objects per image | 30 |
| • Text fields | Yes |
| • I/O fields | Yes |
| • Graphic I/O fields (graphics list) | Yes |
| • Symbolic I/O fields (text list) | Yes |
| • Date/time fields | Yes |
| • Switches | Yes |
| • Buttons | Yes |
| • Graphic display | Yes |
| • Icons | Yes |
| • Geometric objects | Yes |
| Complex image objects | |
| • Number of complex objects per screen | 5 |
| • Alarm view | Yes |
| • Trend view | Yes |

| | |
|--|-----|
| • User view | Yes |
| • Status/control | No |
| • Sm@rtClient view | No |
| • Recipe view | Yes |
| • f(x) trend view | No |
| • System diagnostics view | No |
| • Media Player | No |
| • Bar graphs | Yes |
| • Sliders | No |
| • Pointer instruments | No |
| • Analog/digital clock | No |
| Lists | |
| • Number of text lists per project | 150 |
| • Number of entries per text list | 30 |
| • Number of graphics lists per project | 100 |
| • Number of entries per graphics list | 30 |
| Archiving | |
| • Number of archives per device | 0 |
| Security | |
| • Number of user groups | 50 |
| • Number of user rights | 32 |
| • Number of users | 50 |
| • Password export/import | No |
| • SIMATIC Logon | No |
| Character sets | |
| • Keyboard fonts — US English | Yes |
| Transfer (upload/download) | |
| • MPI/PROFIBUS DP | No |
| • USB | No |
| • Ethernet | Yes |
| • using external storage medium | No |
| Process coupling | |
| • S7-1200 | Yes |
| • S7-1500 | Yes |
| • S7-200 | Yes |
| • S7-300/400 | Yes |
| • LOGO! | Yes |
| • WinAC | Yes |
| • SINUMERIK | No |
| • SIMOTION | No |
| • Allen Bradley (EtherNet/IP) | Yes |
| • Allen Bradley (DF1) | No |
| • Mitsubishi (MC TCP/IP) | Yes |
| • Mitsubishi (FX) | No |
| • OMRON (FINS TCP) | No |
| • OMRON (LINK/Multilink) | No |
| • Modicon (Modbus TCP/IP) | Yes |
| • Modicon (Modbus) | Yes |
| Service tools/configuration aids | |
| • Backup/Restore manually | Yes |
| • Backup/Restore automatically | No |
| • Simulation | Yes |
| • Device switchover | Yes |
| Peripherals/Options | |
| Printer | No |
| SIMATIC HMI MM memory card: Multi Media Card | No |
| SIMATIC HMI SD memory card: Secure Digital memory card | No |
| USB memory | No |

Mechanics/material

Enclosure material (front)

- Plastic
- Aluminum
- Stainless steel

Yes

No

No

Dimensions

Width of the housing front

400 mm

Height of housing front

310 mm

Mounting cutout, width

367 mm

Mounting cutout, height

289 mm

Overall depth

60 mm

Weights

Weight (without packaging)

4.2 kg

Weight (with packaging)

4.68 kg

last modified:

10/8/2021 