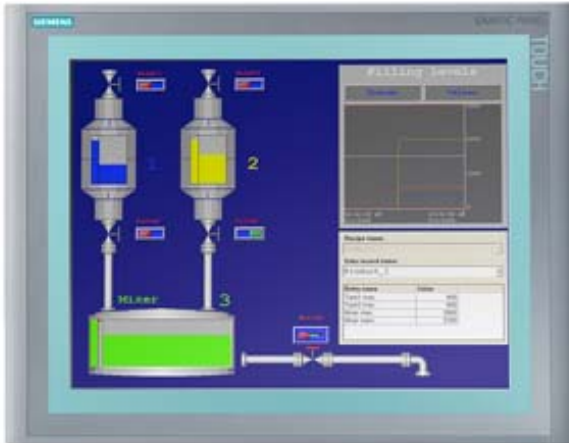


SIMATIC HMI TP1500 Basic Color PN, Basic Panel, Touch operation, 15" TFT display, 256 colors, PROFINET interface, configurable as of WinCC flexible 2008 SP2 Compact/ WinCC Basic V10.5/ STEP 7 Basic V10.5, contains open-source software, which is provided free of charge see enclosed CD



| 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 |
| <b>Touch operation</b>  |                        |
| • Design as touch screen  | Yes                    |
| <b>Installation type/mounting</b>                                     |                        |
| Mounting position   | vertical               |
| Mounting in portrait format possible                                  | No                     |
| Mounting in landscape format possible                                 | Yes                    |
| maximum permissible angle of inclination without external ventilation | 35°                    |
| <b>Supply voltage</b>   |                        |
| 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                 |
| <b>Input current</b>  |                        |
| Current consumption (rated value)                                     | 0.8 A                  |
| Starting current inrush I <sup>2</sup> t                              | 0.2 A <sup>2</sup> ·s  |
| <b>Power</b>  |                        |
| Active power input, typ.  | 20 W                   |
| <b>Processor</b>  |                        |
| Processor type  | RISC 32 bit            |
| <b>Memory</b>   |                        |
| Flash   | Yes                    |
| RAM   | Yes                    |
| Memory available for user data  | 2 Mbyte                |
| <b>Type of output</b>   |                        |
| Acoustics   |                        |
| • Buzzer  | Yes                    |
| • Speaker   | No                     |
| <b>Time of day</b>  |                        |
| 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   |   |
| <ul style="list-style-type: none"> <li>Industrial Ethernet status LED</li> </ul>  | 2   |
| Protocols   |   |
| PROFINET  | Yes                                       |
| Supports protocol for PROFINET IO   | No  |
| IRT   | No  |
| PROFIBUS  | No  |
| MPI   | No  |
| Protocols (Ethernet)  |   |
| <ul style="list-style-type: none"> <li>TCP/IP</li> <li>DHCP</li> <li>SNMP</li> <li>DCP</li> <li>LLDP</li> </ul>         | Yes<br>Yes<br>Yes<br>Yes<br>Yes           |
| WEB characteristics   |   |
| <ul style="list-style-type: none"> <li>HTTP</li> <li>HTML</li> </ul>  | No<br>No                                  |
| Further protocols   |   |
| <ul style="list-style-type: none"> <li>CAN</li> <li>EtherNet/IP</li> <li>MODBUS</li> </ul>                              | No<br>Yes<br>Yes; Modicon (MODBUS TCP/IP) |
| Interrupts/diagnostics/status information   |   |
| Diagnostic messages   |   |
| <ul style="list-style-type: none"> <li>Diagnostic information readable</li> </ul>                                       | No  |
| Degree and class of protection  |   |
| IP (at the front)   | IP65                                      |
| IP (rear)   | IP20                                      |
| NEMA (front)  |   |
| <ul style="list-style-type: none"> <li>Enclosure Type 4 at the front</li> <li>Enclosure Type 4x at the front</li> </ul> | Yes<br>Yes                                |

## Standards, approvals, certificates

|                                     |     |
|-------------------------------------|-----|
| CE mark                             | Yes |
| cULus                               | Yes |
| RCM (formerly C-TICK)               | Yes |
| KC approval                         | Yes |
| <b>Use in hazardous areas</b>       |     |
| • 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  |
| <b>Marine approval</b>              |     |
| • 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

|  |                       |
|--|-----------------------|
| <b>Ambient temperature during operation</b>              |                       |
| • 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, min.                            | 40 °C                 |
| <b>Ambient temperature during storage/transportation</b> |                       |
| • min.   | -20 °C                |
| • max.   | 60 °C                 |
| <b>Relative humidity</b>                                 |                       |
| • Operation, max.  | 90 %; no condensation |

## Operating systems

|                                       |     |
|---------------------------------------|-----|
| proprietary                           | Yes |
| <b>pre-installed operating system</b> |     |
| • Windows CE                          | No  |

## 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  |
| <b>Configuration software</b>                 |  |
| • 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  |
| <b>Languages</b>                              |  |
| <b>Online languages</b>                       |  |
| • Number of online/runtime languages          | 5  |
| <b>Project languages</b>                      |  |
| • Languages per project                       | 32   |
| <b>Functionality under WinCC (TIA Portal)</b> |  |
| Libraries                                     | Yes  |
| <b>Task planner</b>                           |  |
| • time-controlled                             | No   |
| • task-controlled                             | Yes  |
| <b>Message system</b>                         |  |
| • Number of alarm classes                     | 32   |
| • Bit messages                                |  |
| — Number of bit messages                      | 200  |
| • Analog messages                             |  |
| — Number of analog messages                   | 15   |
| • System messages HMI                         | Yes  |
| • 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  |
| <b>Recipe management</b>                      |  |
| • 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  |
| <b>Variables</b>                       |     |
| • Number of variables per device       | 500 |
| • Number of variables per screen       | 30  |
| • Limit values                         | Yes |
| • Multiplexing                         | Yes |
| • Structures                           | No  |
| • Arrays                               | Yes |
| <b>Images</b>                          |     |
| • Number of configurable images        | 50  |
| • Permanent window/default             | Yes |
| • Global image                         | Yes |
| • Image selection by PLC               | Yes |
| • Image number in the PLC              | Yes |
| <b>Image objects</b>                   |     |
| • 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 |
| <b>Complex image objects</b>           |     |
| • 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                  | Yes |
| • Aluminum                 | No  |
| • Stainless steel          | 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 incl. packaging   | 4.68 kg |

**last modified:** 06/12/2020