

SIMATIC HMI TP1200 Comfort Pro for support arm (not expandable, flange on top), Comfort Panel, touch operation, 12" Widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP



| General information   |                            |
|---|----------------------------|
| Product type designation  | TP1200 PRO                 |
| Display   |                            |
| Design of display   | TFT                        |
| Screen diagonal   | 12.1 in                    |
| Display width   | 261.1 mm                   |
| Display height  | 163.2 mm                   |
| Number of colors  | 16 777 216                 |
| Resolution (pixels)   |                            |
| • Horizontal image resolution   | 1 280 pixel                |
| • Vertical image resolution   | 800 pixel                  |
| Backlighting  |                            |
| • MTBF backlighting (at 25 °C)  | 80 000 h                   |
| • Backlight dimmable  | Yes; LED, dimmable         |
| 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; Projective-capacitive |
| Expansions for operator control of the process                        |                            |
| • Direct keys (touch buttons as S7 input I/O)                         | 40                         |
| Installation type/mounting  |                            |
| Mounting  | Support arm                |
| Mounting position   | vertical                   |
| Mounting in portrait format possible                                  | No                         |
| 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)                                     | 1.5 A                      |

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| Starting current inrush I <sup>2</sup> t   | 0.5 A <sup>2</sup> ·s                   |
| <b>Power</b>                               |   |
| Active power input, typ.                   | 36 W                                    |
| <b>Processor</b>                           |   |
| Processor type                             | X86                                     |
| <b>Memory</b>                              |   |
| Flash                                      | Yes                                     |
| RAM  | Yes                                     |
| Memory available for user data             | 12 Mbyte                                |
| <b>Type of output</b>                      |   |
| Info LED                                   | No                                      |
| Power LED                                  | No                                      |
| Error LED                                  | No                                      |
| Acoustics                                  |   |
| • Buzzer                                   | No                                      |
| • Speaker                                  | Yes                                     |
| <b>Time of day</b>                         |   |
| Clock                                      |   |
| • Hardware clock (real-time)               | Yes                                     |
| • Software clock                           | Yes                                     |
| • retentive                                | Yes; Back-up duration typically 6 weeks |
| • synchronizable                           | Yes                                     |
| <b>Interfaces</b>                          |   |
| Number of industrial Ethernet interfaces   | 2; 2 ports (switch) + independent port  |
| Number of RS 485 interfaces                | 1; RS 422 / 485 combined                |
| Number of RS 422 interfaces                | 0; together with RS 485                 |
| Number of RS 232 interfaces                | 0                                       |
| Number of USB interfaces                   | 2; USB 2.0                              |
| Number of other interfaces                 | 0                                       |
| Number of SD card slots                    | 2                                       |
| With software interfaces                   | No                                      |
| <b>Industrial Ethernet</b>                 |   |
| • Industrial Ethernet status LED           | 3                                       |
| • Number of ports of the integrated switch | 2                                       |
| <b>Protocols</b>                           |   |
| PROFINET                                   | Yes                                     |
| Supports protocol for PROFINET IO          | Yes                                     |
| IRT  | Yes                                     |
| PROFIBUS                                   | Yes                                     |
| EtherNet/IP                                | Yes                                     |
| MPI  | Yes                                     |
| <b>Protocols (Ethernet)</b>                |   |
| • TCP/IP                                   | Yes                                     |
| • DHCP                                     | Yes                                     |
| • SNMP                                     | Yes                                     |
| • DCP                                      | Yes                                     |
| • LLDP                                     | Yes                                     |
| <b>WEB characteristics</b>                 |   |
| • HTTP                                     | Yes                                     |
| • HTTPS                                    | Yes                                     |
| • HTML                                     | Yes                                     |
| • XML                                      | Yes                                     |
| • CSS                                      | Yes                                     |
| • Active X                                 | Yes                                     |
| • JavaScript                               | Yes                                     |
| • Java VM                                  | No                                      |
| <b>Redundancy mode</b>                     |   |
| Media redundancy                           |   |
| — MRP                                      | Yes                                     |
| <b>Further protocols</b>                   |   |

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|---|------------------------------------|
| • CAN   | No                                 |
| • MODBUS  | Yes                                |
| <b>Interrupts/diagnostics/status information</b>  |                                    |
| Diagnoses   |                                    |
| • Diagnostic information readable                 | Yes; S7 controller                 |
| <b>EMC</b>  |                                    |
| Emission of radio interference acc. to EN 55 011  |                                    |
| • Limit class A, for use in industrial areas      | Yes                                |
| • Limit class B, for use in residential areas     | No                                 |
| <b>Degree and class of protection</b>             |                                    |
| IP (at the front)                                 | IP65                               |
| IP (rear)   | IP65                               |
| NEMA (front)                                      |                                    |
| • Enclosure Type 4 at the front                   | Yes                                |
| • Enclosure Type 4x at the front                  | Yes                                |
| <b>Standards, approvals, certificates</b>         |                                    |
| CE mark   | Yes                                |
| cULus   | Yes                                |
| RCM (formerly C-TICK)                             | Yes                                |
| KC approval                                       | No; Available soon                 |
| EAC (formerly Gost-R)                             | No; Available soon                 |
| <b>Ambient conditions</b>                         |                                    |
| Suited for indoor use                             | Yes                                |
| Suited for outdoor use                            | No                                 |
| Ambient temperature during operation              |                                    |
| Operation (vertical installation)                 |                                    |
| — For vertical installation, min.                 | 0 °C                               |
| — For vertical installation, max.                 | 45 °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              |
| <b>Operating systems</b>                          |                                    |
| proprietary                                       | No                                 |
| pre-installed operating system                    |                                    |
| • Windows CE                                      | Yes; Windows Embedded Compact 2013 |
| <b>configuration / header</b>                     |                                    |
| 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)                       | No                                 |
| • STEP 7 Professional (TIA Portal)                | No                                 |
| • WinCC flexible Compact                          | No                                 |
| • WinCC flexible Standard                         | No                                 |
| • WinCC flexible Advanced                         | No                                 |
| • WinCC Basic (TIA Portal)                        | No                                 |
| • WinCC Comfort (TIA Portal)                      | Yes; V14 SP1 HSP and higher        |
| • WinCC Advanced (TIA Portal)                     | Yes; V14 SP1 HSP and higher        |
| • WinCC Professional (TIA Portal)                 | Yes; V14 SP1 HSP and higher        |
| <b>Languages</b>                                  |                                    |
| Online languages                                  |                                    |
| • Number of online/runtime languages              | 32                                 |
| Project languages                                 |                                    |

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| • Languages per project                                      | 32      |
| <b>Functionality under WinCC (TIA Portal)</b>                |         |
| Libraries  | Yes     |
| Applications/options   |         |
| • Web browser  | Yes     |
| • Pocket Word  | Yes     |
| • Pocket Excel   | Yes     |
| • PDF Viewer   | Yes     |
| • Media Player   | Yes     |
| • SIMATIC WinCC Sm@rtServer                                  | Yes     |
| • SIMATIC WinCC Audit  | Yes     |
| Number of Visual Basic Scripts                               | Yes     |
| Task planner   |         |
| • time-controlled  | Yes     |
| • task-controlled  | Yes     |
| Help system  |         |
| • Number of characters per info text                         | 70      |
| <b>Message system</b>  |         |
| • Number of alarm classes                                    | 32      |
| • Bit messages   |         |
| — Number of bit messages                                     | 4 000   |
| • Analog messages  |         |
| — Number of analog messages                                  | 200     |
| • S7 alarm number procedure                                  | Yes     |
| • System messages HMI  | Yes     |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... ) | Yes     |
| • Number of characters per message                           | 80      |
| • Number of process values per message                       | 8       |
| • Acknowledgment groups                                      | Yes     |
| • Message indicator  | Yes     |
| • Message buffer   |         |
| — Number of entries  | 1 024   |
| — Circulating buffer   | Yes     |
| — retentive  | Yes     |
| — maintenance-free   | Yes     |
| <b>Recipe management</b>                                     |         |
| • Number of recipes  | 300     |
| • Data records per recipe                                    | 500     |
| • Entries per data record                                    | 1 000   |
| • Size of internal recipe memory                             | 2 Mbyte |
| • Recipe memory expandable                                   | Yes     |
| <b>Variables</b>   |         |
| • Number of variables per device                             | 2 048   |
| • Number of variables per screen                             | 400     |
| • Limit values   | Yes     |
| • Multiplexing   | Yes     |
| • Structures   | Yes     |
| • Arrays   | Yes     |
| <b>Images</b>  |         |
| • Number of configurable images                              | 500     |
| • Permanent window/default                                   | Yes     |
| • Global image   | Yes     |
| • Pop-up images  | Yes     |
| • Slide-in images  | Yes     |
| • Image selection by PLC                                     | Yes     |
| • Image number in the PLC                                    | Yes     |
| <b>Image objects</b>   |         |
| • Number of objects per image                                | 400     |
| • Text fields  | Yes     |
| • I/O fields   | Yes     |

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| • 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 | 20             |
| • Alarm view                           | Yes            |
| • Trend view                           | Yes            |
| • User view                            | Yes            |
| • Status/control                       | Yes            |
| • Sm@rtClient view                     | Yes            |
| • Recipe view                          | Yes            |
| • f(x) trend view                      | Yes            |
| • System diagnostics view              | Yes            |
| • Media Player                         | Yes            |
| • HTML browser                         | Yes            |
| • PDF display                          | Yes            |
| • IP camera display                    | Yes            |
| • Bar graphs                           | Yes            |
| • Sliders                              | Yes            |
| • Pointer instruments                  | Yes            |
| • Analog/digital clock                 | Yes            |
| <b>Lists</b>                           |                |
| • Number of text lists per project     | 500            |
| • Number of entries per text list      | 500            |
| • Number of graphics lists per project | 500            |
| • Number of entries per graphics list  | 500            |
| <b>Archiving</b>                       |                |
| • Number of archives per device        | 50             |
| • Number of entries per archive        | 20 000         |
| • Message archive                      | Yes            |
| • Process value archive                | Yes            |
| • Archiving methods                    |                |
| — Sequential archive                   | Yes            |
| — Short-term archive                   | Yes            |
| • Memory location                      |                |
| — Memory card                          | Yes            |
| — USB memory                           | Yes            |
| — Ethernet                             | Yes            |
| • Data storage format                  |                |
| — CSV                                  | Yes            |
| — TXT                                  | Yes            |
| — RDB                                  | Yes            |
| <b>Security</b>                        |                |
| • Number of user groups                | 50             |
| • Number of user rights                | 32             |
| • Number of users                      | 50             |
| • Password export/import               | Yes            |
| • SIMATIC Logon                        | Yes            |
| <b>Logging through printer</b>         |                |
| • Alarms                               | Yes            |
| • Report (shift log)                   | Yes            |
| • Hardcopy                             | Yes            |
| • Electronic print to file             | Yes; PDF, HTML |
| <b>Character sets</b>                  |                |
| • Keyboard fonts                       |                |
| — US English                           | Yes            |

| Transfer (upload/download)                             |  |
|--|--|
| • MPI/PROFIBUS DP                                      | Yes  |
| • USB  | Yes  |
| • Ethernet   | Yes  |
| • using external storage medium                        | Yes  |
| Process coupling                                       |  |
| • S7-1200  | Yes  |
| • S7-1500  | Yes  |
| • S7-200   | Yes  |
| • S7-300/400   | Yes  |
| • LOGO!  | Yes  |
| • WinAC  | Yes  |
| • SINUMERIK  | Yes; With SINUMERIK option package as from WinCC V15 or higher |
| • SIMOTION   | Yes  |
| • Allen Bradley (EtherNet/IP)                          | Yes  |
| • Allen Bradley (DF1)                                  | Yes  |
| • Mitsubishi (MC TCP/IP)                               | Yes  |
| • Mitsubishi (FX)                                      | Yes  |
| • OMRON (FINS TCP)                                     | No   |
| • OMRON (LINK/Multilink)                               | Yes  |
| • Modicon (Modbus TCP/IP)                              | Yes  |
| • Modicon (Modbus)                                     | Yes  |
| • OPC UA Client  | Yes  |
| • OPC UA Server  | Yes  |
| Service tools/configuration aids                       |  |
| • Backup/Restore manually                              | Yes  |
| • Backup/Restore automatically                         | Yes  |
| • Simulation   | Yes  |
| • Device switchover                                    | Yes  |
| Peripherals/Options                                    |  |
| Printer  | Yes  |
| SIMATIC HMI MM memory card: Multi Media Card           | Yes; Up to 128 MB  |
| SIMATIC HMI SD memory card: Secure Digital memory card | Yes; Up to 2 GB  |
| SIMATIC HMI CF memory card Compact Flash Card          | No   |
| USB memory   | Yes  |
| SIMATIC IPC USB Flashdrive (USB stick)                 | Yes; Up to 16 GB   |
| SIMATIC HMI USB stick                                  | Yes; Up to 8 GB  |
| Network camera   | Yes  |
| Mechanics/material                                     |  |
| Enclosure material (front)                             |  |
| • Plastic  | No   |
| • Aluminum   | Yes  |
| • Stainless steel                                      | No   |
| Dimensions   |  |
| Width of the housing front                             | 313 mm   |
| Height of housing front                                | 226 mm; Without basic adapter                                  |
| Overall depth  | 101 mm; Without basic adapter                                  |
| Weights  |  |
| Weight (without packaging)                             | 4.9 kg   |

**last modified:** 10/7/2021 