

SIMATIC HMI MTP2200 PRO, for support arm (expandable, round pipe) and Extension Unit, 21.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as of Comfort V18, contains open-source software, which is provided free of charge



| General information   |                             |
|---|-----------------------------|
| Product type designation  | MTP2200 Unified Comfort PRO |
| Display   |                             |
| Design of display   | TFT                         |
| Screen diagonal   | 21.5 in                     |
| Display width   | 476 mm                      |
| Display height  | 267.8 mm                    |
| Number of colors  | 16 777 216                  |
| Resolution (pixels)   |                             |
| • Horizontal image resolution   | 1 920 pixel                 |
| • Vertical image resolution   | 1 080 pixel                 |
| Backlighting  |                             |
| • MTBF backlighting (at 25 °C)  | 30 000 h; At 25°C           |
| • Backlight dimmable  | Yes; 10 ... 100%            |
| Control elements  |                             |
| Keyboard fonts  |                             |
| • Numeric keyboard  | Yes; Onscreen keyboard      |
| • alphanumeric keyboard   | Yes; Onscreen keyboard      |
| Touch operation   |                             |
| • Design as touch screen  | Yes                         |
| • Design as multi-touch screen  | Yes                         |
| Installation type/mounting  |                             |
| Mounting  | Support arm                 |
| Mounting position   | vertical                    |
| 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)                                     | 1 A                         |
| Current consumption, max.   | 1.5 A                       |
| Starting current inrush I <sup>2</sup> t                              | 0.5 A <sup>2</sup> ·s       |
| Power   |                             |
| Active power input, typ.  | 24 W                        |

| Processor  |   |
|--|---|
| Processor type                                   | X86                                     |
| Memory   |   |
| Flash  | Yes                                     |
| RAM  | Yes                                     |
| Type of output                                   |   |
| Info LED   | No                                      |
| Power LED  | No                                      |
| Error LED  | No                                      |
| Acoustics  |   |
| • Buzzer   | Yes                                     |
| • Speaker  | No                                      |
| Time of day                                      |   |
| Clock  |   |
| • Hardware clock (real-time)                     | Yes                                     |
| • Software clock                                 | Yes                                     |
| • retentive                                      | Yes; Back-up duration typically 6 weeks |
| • synchronizable                                 | Yes                                     |
| Interfaces                                       |   |
| 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 USB interfaces                         | 4; USB 3.1 Gen. 1 (type A)              |
| Number of SD card slots                          | 2                                       |
| Industrial Ethernet                              |   |
| • Industrial Ethernet status LED                 | 2                                       |
| • Number of ports of the integrated switch       | 2                                       |
| Protocols  |   |
| PROFINET   | Yes                                     |
| Supports protocol for PROFINET IO                | No                                      |
| Protocols (Ethernet)                             |   |
| • TCP/IP   | Yes                                     |
| • DHCP   | Yes                                     |
| • SNMP   | Yes                                     |
| • DCP  | Yes                                     |
| • LLDP   | Yes                                     |
| Redundancy mode                                  |   |
| Media redundancy                                 |   |
| — MRP  | Yes                                     |
| Further protocols                                |   |
| • CAN  | No                                      |
| EMC  |   |
| 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                                      |
| Degree and class of protection                   |   |
| IP (at the front)                                | IP65                                    |
| IP (rear)  | IP65                                    |
| NEMA (front)                                     |   |
| • Enclosure Type 4 at the front                  | Yes                                     |
| • Enclosure Type 4x at the front                 | Yes                                     |
| • Enclosure Type 12 at the front                 | Yes                                     |
| Standards, approvals, certificates               |   |
| CE mark  | Yes                                     |
| UKCA mark  | Yes                                     |
| cULus  | Yes                                     |
| FM approval                                      | Yes                                     |
| RCM (formerly C-TICK)                            | Yes                                     |

|  |                       |
|--|-----------------------|
| KC approval  | Yes                   |
| EAC (formerly Gost-R)                                    | Yes                   |
| CCC  | Yes                   |
| <b>Use in hazardous areas</b>                            |                       |
| • ATEX Zone 2  | Yes                   |
| • ATEX Zone 22   | Yes                   |
| • IECEx Zone 2   | Yes                   |
| • IECEx Zone 22  | Yes                   |
| • cULus Class I Zone 2, Division 2                       | Yes                   |
| • cULus Class II Division 2                              | No                    |
| • FM Class I Division 2                                  | Yes                   |
| • FM Class II 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                    |
| • Korean Register of Shipping (KRS)                      | No                    |
| • Lloyds Register of Shipping (LRS)                      | No                    |
| • Nippon Kaiji Kyokai (Class NK)                         | No                    |
| • Polski Rejestr Statkow (PRS)                           | No                    |
| • Chinese Classification Society (CCS)                   | No                    |
| <b>Ambient conditions</b>                                |                       |
| <b>Ambient temperature during operation</b>              |                       |
| 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                 |
| <b>Ambient temperature during storage/transportation</b> |                       |
| • min.   | -20 °C                |
| • max.   | 60 °C                 |
| <b>Relative humidity</b>                                 |                       |
| • Operation, max.  | 90 %; no condensation |
| <b>Operating systems</b>                                 |                       |
| proprietary  | Yes                   |
| <b>Configuration</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                   |
| <b>Configuration software</b>                            |                       |
| • 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)                             | No                    |
| • WinCC Advanced (TIA Portal)                            | No                    |
| • WinCC Professional (TIA Portal)                        | No                    |
| • WinCC Unified Basic Engineering (TIA Portal)           | No                    |
| • WinCC Unified Comfort Engineering (TIA Portal)         | Yes; V18 or higher    |
| • WinCC Unified PC Engineering (TIA Portal)              | Yes; V18 or higher    |
| <b>Languages</b>   |                       |
| <b>Online languages</b>                                  |                       |
| • Number of online/runtime languages                     | 32                    |

|  |                                  |
|--|----------------------------------|
| <b>Project languages</b>                                     |                                  |
| • Languages per project                                      | 32                               |
| <b>Functionality under WinCC Unified</b>                     |                                  |
| Libraries  | Yes                              |
| Applications/options   |                                  |
| • Writer   | Yes                              |
| • Calc   | Yes                              |
| • Web browser  | Yes                              |
| • PDF Viewer   | Yes                              |
| • Media Player   | Yes                              |
| • SIMATIC WinCC Sm@rtServer                                  | Yes                              |
| • SIMATIC WinCC Audit  | Yes                              |
| • Unified Collaboration                                      | Yes                              |
| Number of Visual Basic Scripts                               | No                               |
| JavaScript   | Yes                              |
| Task planner   |                                  |
| • time-controlled  | Yes                              |
| • task-controlled  | Yes                              |
| Help system  |                                  |
| • Number of characters per info text                         | 70                               |
| • Number of message texts per message                        | 10                               |
| <b>Message system</b>  |                                  |
| • Number of alarm classes                                    | 32                               |
| • Bit messages   |                                  |
| — Number of bit messages                                     | 9 000                            |
| • Analog messages  |                                  |
| — Number of analog messages                                  | 300                              |
| • S7 alarm number procedure                                  | Yes                              |
| • System messages HMI  | Yes                              |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... ) | Yes                              |
| • Number of characters per message                           | 512                              |
| • Number of process values per message                       | 10                               |
| • Acknowledgment groups                                      | Yes                              |
| • Message indicator  | No                               |
| • Message buffer   | Yes; Configured as alarm archive |
| — Circulating buffer   | Yes                              |
| — retentive  | Yes                              |
| — maintenance-free   | Yes                              |
| <b>Parameter set management (recipes)</b>                    |                                  |
| • Number of parameter set types                              | 750                              |
| • Parameter sets per parameter set type                      | 2 000                            |
| • Entries per parameter set                                  | 1 000                            |
| • Size of internal parameter set memory                      | 12 Mbyte                         |
| • Parameter set memory expandable                            | Yes                              |
| <b>Variables</b>   |                                  |
| • Number of variables per device                             | 8 000                            |
| • Number of variables per screen                             | 800                              |
| • Limit values   | Yes                              |
| • Structures   | Yes                              |
| • Arrays   | Yes                              |
| <b>Images</b>  |                                  |
| • Number of configurable images                              | 1 200                            |
| • Faceplate  | Yes                              |
| <b>Image objects</b>   |                                  |
| • Number of objects per image                                | 1 200                            |
| • Picture window   | Yes                              |
| • 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                                      |
| • Scalable Vector Graphics (SVG)       | Yes                                      |
| • Date/time fields                     | Yes                                      |
| • Checkbox                             | Yes                                      |
| • Option button                        | Yes                                      |
| • Switches                             | Yes                                      |
| • Buttons                              | Yes                                      |
| • Graphic display                      | Yes                                      |
| • Icons                                | Yes                                      |
| • Custom web display                   | Yes                                      |
| • Geometric objects                    | Yes                                      |
| <b>Complex image objects</b>           |  |
| • Number of complex objects per screen | 80                                       |
| • Alarm view                           | Yes                                      |
| • Trend view                           | Yes                                      |
| • User view                            | Yes                                      |
| • Status/control                       | No                                       |
| • Parameter set display                | Yes                                      |
| • HTML browser                         | Yes                                      |
| • Bar graphs                           | Yes                                      |
| • Sliders                              | Yes                                      |
| • Pointer instruments                  | Yes                                      |
| • Analog/digital clock                 | Yes                                      |
| <b>Lists</b>                           |  |
| • Number of text lists per project     | 750                                      |
| • Number of entries per text list      | 750                                      |
| • Number of graphics lists per project | 750                                      |
| • Number of entries per graphics list  | 750                                      |
| <b>Archiving</b>                       |  |
| • Number of archives per device        | 50                                       |
| • Number of entries per archive        | 500 000                                  |
| • 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                             | No                                       |
| <b>Security</b>                        |  |
| • Number of roles                      | 50                                       |
| • Number of function rights            | 20; number of predefined function rights |
| • Number of users                      | 200                                      |
| • Password export/import               | Yes                                      |
| • Central user administration          | Yes                                      |
| <b>Transfer (upload/download)</b>      |  |
| • USB                                  | No                                       |
| • Ethernet                             | Yes                                      |
| • using external storage medium        | Yes                                      |
| <b>Process coupling</b>                |  |
| • S7-1200                              | Yes                                      |
| • S7-1500                              | Yes                                      |
| • S7-200                               | No                                       |
| • S7-300/400                           | Yes                                      |
| • Number of S7 connections             | 16                                       |
| • LOGO!                                | No                                       |
| • SIMOTION                             | No                                       |

|   |     |
|---|-----|
| • OPC UA Client                         | Yes |
| • OPC UA Server                         | Yes |
| • Software Controller/Open Controller   | Yes |
| <b>Service tools/configuration aids</b> |     |
| • Backup/Restore manually               | Yes |
| • Backup/Restore automatically          | Yes |
| • Simulation                            | Yes |
| • Device switchover                     | Yes |

|  |                         |
|--|-------------------------|
| <b>Peripherals/Options</b>                             |                         |
| Peripherals  | Printer, barcode reader |
| Printer  | Yes                     |
| SIMATIC HMI MM memory card: Multi Media Card           | No                      |
| SIMATIC HMI SD memory card: Secure Digital memory card | Yes                     |
| SIMATIC HMI CF memory card Compact Flash Card          | No                      |
| USB memory   | Yes                     |
| SIMATIC IPC USB Flashdrive (USB stick)                 | Yes                     |
| SIMATIC HMI USB stick                                  | Yes                     |
| Network camera   | Yes                     |

|                            |     |
|----------------------------|-----|
| <b>Mechanics/material</b>  |     |
| Enclosure material (front) |     |
| • Plastic                  | No  |
| • Aluminum                 | Yes |
| • Stainless steel          | No  |

|                            |                               |
|----------------------------|-------------------------------|
| <b>Dimensions</b>          |                               |
| Width of the housing front | 527 mm                        |
| Height of housing front    | 329 mm; Without basic adapter |

|                            |        |
|----------------------------|--------|
| <b>Weights</b>             |        |
| Weight (without packaging) | 8.4 kg |

|                        |        |                |                       |
|------------------------|--------|----------------|-----------------------|
| <b>Classifications</b> |        |                |                       |
|                        |        | <b>Version</b> | <b>Classification</b> |
|                        | eClass | 14             | 27-33-02-01           |
|                        | eClass | 12             | 27-33-02-01           |
|                        | eClass | 9.1            | 27-33-02-01           |
|                        | eClass | 9              | 27-33-02-01           |
|                        | eClass | 8              | 27-24-23-02           |
|                        | eClass | 7.1            | 27-24-23-02           |
|                        | eClass | 6              | 27-24-23-02           |
|                        | ETIM   | 10             | EC001412              |
|                        | ETIM   | 9              | EC001412              |
|                        | ETIM   | 8              | EC001412              |
|                        | ETIM   | 7              | EC001412              |

**Approvals / Certificates**

**General Product Approval**



[Miscellaneous](#)

[China RoHS](#)



**General Product Approval** For use in hazardous locations

[KC](#)



[FM](#)

[CCC-Ex](#)

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