

SIMATIC HMI MTP1900 PRO, for support arm (not expandable, flange on top), neutral front, 18.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V18, contains open-source software, which is provided free of charge



| General information | |
|---|---|
| Product type designation | MTP1900 Unified Comfort PRO Neutral Front |
| Display | |
| Design of display | TFT |
| Screen diagonal | 18.5 in |
| Display width | 409 mm |
| Display height | 230 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) | 50 000 h |
| • 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) | 1.2 A |
| Current consumption, max. | 1.7 A |
| Starting current inrush I ² t | 0.5 A ² ·s |
| Power | |
| Active power input, typ. | 28.8 W |
| Processor | |

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| 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 | No; in preparation |
| RCM (formerly C-TICK) | Yes |
| KC approval | No; in preparation |
| EAC (formerly Gost-R) | No; in preparation |
| CCC | No; in preparation |

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| Use in hazardous areas | |
| • ATEX Zone 2 | No; in preparation |
| • ATEX Zone 22 | No; in preparation |
| • IECEx Zone 2 | No; in preparation |
| • IECEx Zone 22 | No; in preparation |
| • cULus Class I Zone 2, Division 2 | No; in preparation |
| • cULus Class II Division 2 | No |
| • FM Class I Division 2 | No; in preparation |
| • FM Class II Division 2 | No |
| Marine approval | |
| • 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 |
| Ambient conditions | |
| 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 |
| Operating systems | |
| proprietary | Yes |
| 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) | 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 |
| Languages | |
| Online languages | |
| • Number of online/runtime languages | 32 |
| Project languages | |
| • Languages per project | 32 |
| Functionality under WinCC Unified | |
| Libraries | Yes |

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| 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 |
| functionality under WinCC Unified / alarm system / header | |
| • 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 messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | 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 |
| Parameter set management (recipes) | |
| • 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 |
| functionality under WinCC Unified / variables / header | |
| • Number of variables per device | 8 000 |
| • Number of variables per screen | 800 |
| • Limit values | Yes |
| • Structures | Yes |
| • Arrays | Yes |
| functionality under WinCC Unified / screens / header | |
| • Number of configurable images | 1 200 |
| • Faceplate | Yes |
| Image objects | |
| • Number of objects per image | 1 200 |
| • Picture window | Yes |
| • Text fields | Yes |
| • I/O fields | Yes |
| • 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

functionality under WinCC Unified / complex screen objects / header

- Number of complex objects per screen 80
- Alarm view Yes
- Trend view Yes
- User view Yes
- Status/control Yes
- Parameter set display Yes
- HTML browser Yes
- Bar graphs Yes
- Sliders Yes
- Pointer instruments Yes
- Analog/digital clock Yes

functionality under WinCC Unified / lists / header

- 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

functionality under WinCC Unified / archiving / header

- Number of archives per device 50
- Number of entries per archive 500 000
- Message archive Yes
- Process value archive Yes
- type of archiving / for WinCC Unified
 - Sequential archive Yes
 - Short-term archive Yes
- storage location / of archiving / for WinCC Unified
 - Memory card Yes
 - USB memory Yes
 - Ethernet No

Security

- 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

functionality under WinCC Unified / transfer (upload/download) / header

- USB No
- Ethernet Yes
- using external storage medium Yes

Process coupling

- 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

functionality under WinCC Unified / service tools/configuration tools / header

- Backup/Restore manually Yes
- Backup/Restore automatically Yes
- Simulation Yes
- Device switchover Yes

| Peripherals/Options | |
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| 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 |
| Mechanics/material | |
| Enclosure material (front) | |
| • Plastic | No |
| • Aluminum | Yes |
| • Stainless steel | No |
| Dimensions | |
| Width of the housing front | 462 mm |
| Height of housing front | 292 mm; Without basic adapter |
| Overall depth | 101 mm; Without basic adapter |
| Weights | |
| Weight (without packaging) | 7.1 kg |

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