



SIMATIC HMI KTP400 Comfort, Comfort Panel, Key/touch operation, 4" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 4 MB configuration memory, Windows CE 6.0, (Microsoft Support included Security updates discontinued) configurable from WinCC Comfort V11

| General information   |                        |
|---|------------------------|
| Product type designation  | KTP400 Comfort         |
| Display   |                        |
| Design of display   | TFT                    |
| Screen diagonal   | 4.3 in                 |
| Display width   | 95 mm                  |
| Display height  | 53.8 mm                |
| Number of colors  | 16 777 216             |
| Resolution (pixels)   |                        |
| • Horizontal image resolution   | 480 pixel              |
| • Vertical image resolution   | 272 pixel              |
| Backlighting  |                        |
| • MTBF backlighting (at 25 °C)  | 80 000 h               |
| • Backlight dimmable  | Yes; 0-100 %           |
| Control elements  |                        |
| Keyboard fonts  |                        |
| • Function keys   |                        |
| — Number of function keys   | 4                      |
| — Number of function keys with LEDs                                   | 4                      |
| • Keys with LED   | Yes                    |
| • System keys   | No                     |
| • Numeric keyboard  | Yes; Onscreen keyboard |
| • alphanumeric keyboard   | Yes; Onscreen keyboard |
| Touch operation   |                        |
| • Design as touch screen  | Yes                    |
| Expansions for operator control of the process                        |                        |
| • DP direct LEDs (LEDs as S7 output I/O)                              |                        |
| — F1...Fx   | 4                      |
| • Direct keys (keys as S7 input I/O)                                  |                        |
| — F1...Fx   | 4                      |
| • Direct keys (touch buttons as S7 input I/O)                         | 32                     |
| Installation type/mounting  |                        |
| Mounting position   | vertical               |
| Wall mounting/direct mounting   | No                     |
| Mounting in portrait format possible                                  | Yes                    |
| 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)          | 0.13 A                                  |
| Starting current inrush I <sup>2</sup> t   | 0.5 A <sup>2</sup> ·s                   |
| Power                                      |   |
| Active power input, typ.                   | 3.1 W                                   |
| Processor                                  |   |
| Processor type                             | ARM                                     |
| Memory                                     |   |
| Flash                                      | Yes                                     |
| RAM  | Yes                                     |
| Memory available for user data             | 4 Mbyte                                 |
| 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   | 1                                       |
| Number of RS 485 interfaces                | 1; RS 422 / 485 combined                |
| Number of RS 422 interfaces                | 1                                       |
| Number of RS 232 interfaces                | 0                                       |
| Number of USB interfaces                   | 1; USB 2.0                              |
| • USB Mini B                               | 1; 5-pole                               |
| Number of 20 mA interfaces (TTY)           | 0                                       |
| Number of parallel interfaces              | 0                                       |
| Number of other interfaces                 | 0                                       |
| Number of SD card slots                    | 2                                       |
| With software interfaces                   | No                                      |
| Industrial Ethernet                        |   |
| • Industrial Ethernet status LED           | 2                                       |
| • Number of ports of the integrated switch | 1; No switch integrated                 |
| Protocols                                  |   |
| PROFINET                                   | Yes                                     |
| Supports protocol for PROFINET IO          | Yes                                     |
| IRT  | No                                      |
| PROFIBUS                                   | Yes                                     |
| MPI  | Yes                                     |
| Protocols (Ethernet)                       |   |
| • TCP/IP                                   | Yes                                     |
| • DHCP                                     | Yes                                     |
| • SNMP                                     | Yes                                     |
| • DCP                                      | Yes                                     |
| • LLDP                                     | Yes                                     |
| WEB characteristics                        |   |

|   |                    |
|---|--------------------|
| • HTTP  | Yes                |
| • HTTPS   | No                 |
| • HTML  | Yes                |
| • XML   | No                 |
| • CSS   | Yes                |
| • Active X  | No                 |
| • JavaScript  | Yes                |
| • Java VM   | No                 |
| <b>Redundancy mode</b>                                  |                    |
| <b>Media redundancy</b>                                 |                    |
| — MRP   | No                 |
| <b>Further protocols</b>                                |                    |
| • CAN   | No                 |
| • EtherNet/IP   | Yes                |
| • MODBUS  | Yes                |
| <b>Interrupts/diagnostics/status information</b>        |                    |
| <b>Diagnoses</b>  |                    |
| • Diagnostic information readable                       | Yes; S7 controller |
| <b>EMC</b>  |                    |
| <b>Emission of radio interference acc. to EN 55 011</b> |                    |
| • 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>                   |                    |
| <b>NEMA (front)</b>                                     |                    |
| • 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   | 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 1                                  | No                 |
| • cULus Class I Zone 2, Division 2                      | Yes                |
| • FM Class I Division 2                                 | Yes                |
| <b>Marine approval</b>                                  |                    |
| • Germanischer Lloyd (GL)                               | Yes                |
| • American Bureau of Shipping (ABS)                     | Yes                |
| • Bureau Veritas (BV)                                   | Yes                |
| • Det Norske Veritas (DNV)                              | Yes                |
| • Lloyds Register of Shipping (LRS)                     | Yes                |
| • Nippon Kaiji Kyokai (Class NK)                        | Yes                |
| • Polski Rejestr Statkow (PRS)                          | No                 |
| <b>Ambient conditions</b>                               |                    |
| <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              |
| • Operation (vertical installation, portrait format)    |                    |
| — For vertical installation, min.                       | 0 °C               |
| — For vertical installation, max.                       | 40 °C              |

|   |     |
|---|-----|
| <ul style="list-style-type: none"> <li>• Operation (max. tilt angle, portrait format) <ul style="list-style-type: none"> <li>— At maximum tilt angle, min. 0 °C</li> <li>— At maximum tilt angle, min. 35 °C</li> </ul> </li> </ul>   |     |
| <b>Ambient temperature during storage/transportation</b>  |     |
| <ul style="list-style-type: none"> <li>• min. -20 °C</li> <li>• max. 60 °C</li> </ul>   |     |
| <b>Relative humidity</b>  |     |
| <ul style="list-style-type: none"> <li>• Operation, max. 90 %; no condensation</li> </ul>   |     |
| <b>Operating systems</b>  |     |
| proprietary   | No  |
| <b>pre-installed operating system</b>   |     |
| <ul style="list-style-type: none"> <li>• Windows CE Yes</li> </ul>  |     |
| <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>   |     |
| <ul style="list-style-type: none"> <li>• STEP 7 Basic (TIA Portal) No</li> <li>• STEP 7 Professional (TIA Portal) No</li> <li>• WinCC flexible Compact No</li> <li>• WinCC flexible Standard No</li> <li>• WinCC flexible Advanced No</li> <li>• WinCC Basic (TIA Portal) No</li> <li>• WinCC Comfort (TIA Portal) Yes; from V11</li> <li>• WinCC Advanced (TIA Portal) Yes; from V11</li> <li>• WinCC Professional (TIA Portal) Yes; from V11</li> </ul> |     |
| <b>Languages</b>  |     |
| <b>Online languages</b>   |     |
| <ul style="list-style-type: none"> <li>• Number of online/runtime languages 32</li> </ul>   |     |
| <b>Project languages</b>  |     |
| <ul style="list-style-type: none"> <li>• Languages per project 32</li> </ul>  |     |
| <b>Functionality under WinCC (TIA Portal)</b>   |     |
| Libraries   | Yes |
| <b>Applications/options</b>   |     |
| <ul style="list-style-type: none"> <li>• Web browser Yes</li> <li>• Pocket Word Yes</li> <li>• Pocket Excel Yes</li> <li>• PDF Viewer Yes</li> <li>• Media Player Yes</li> <li>• SIMATIC WinCC Sm@rtServer Yes</li> <li>• SIMATIC WinCC Audit Yes</li> </ul>  |     |
| Number of Visual Basic Scripts  | Yes |
| <b>Task planner</b>   |     |
| <ul style="list-style-type: none"> <li>• time-controlled Yes</li> <li>• task-controlled Yes</li> </ul>  |     |
| <b>Help system</b>  |     |
| <ul style="list-style-type: none"> <li>• Number of characters per info text 70</li> </ul>   |     |
| <b>Message system</b>   |     |
| <ul style="list-style-type: none"> <li>• Number of alarm classes 32</li> <li>• Bit messages Yes <ul style="list-style-type: none"> <li>— Number of bit messages 2 000</li> </ul> </li> <li>• Analog messages Yes <ul style="list-style-type: none"> <li>— Number of analog messages 50</li> </ul> </li> <li>• S7 alarm number procedure Yes</li> <li>• System messages HMI Yes</li> <li>• System messages, other (SIMATIC S7, Sinumerik, Yes</li> </ul>   |     |

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|--|-----------|
| Simotion, etc.)                        |           |
| • Number of characters per message     | 80        |
| • Number of process values per message | 8         |
| • Acknowledgment groups                | Yes       |
| • Message indicator                    | Yes       |
| • Message buffer                       |           |
| — Number of entries                    | 256       |
| — Circulating buffer                   | Yes       |
| — retentive                            | Yes       |
| — maintenance-free                     | Yes       |
| <b>Recipe management</b>               |           |
| • Number of recipes                    | 100       |
| • Data records per recipe              | 200       |
| • Entries per data record              | 200       |
| • Size of internal recipe memory       | 512 kbyte |
| • Recipe memory expandable             | Yes       |
| <b>Variables</b>                       |           |
| • Number of variables per device       | 1 024     |
| • Number of variables per screen       | 50        |
| • 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          | 50        |
| • 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                       | Yes       |
| • Sm@rtClient view                     | Yes       |
| • Recipe view                          | Yes       |
| • f(x) trend view                      | Yes       |
| • System diagnostics view              | Yes       |
| • Media Player                         | Yes       |
| • HTML browser                         | No        |
| • PDF display                          | Yes       |
| • IP camera display                    | Yes       |
| • Bar graphs                           | Yes       |

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|--|------------------------------------|
| • Sliders                              | Yes                                |
| • Pointer instruments                  | Yes                                |
| • Analog/digital clock                 | Yes                                |
| <b>Lists</b>                           |                                    |
| • Number of text lists per project     | 300                                |
| • Number of entries per text list      | 30                                 |
| • Number of graphics lists per project | 100                                |
| • Number of entries per graphics list  | 30                                 |
| <b>Archiving</b>                       |                                    |
| • Number of archives per device        | 10                                 |
| • Number of entries per archive        | 10 000                             |
| • 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                                |
| <b>Transfer (upload/download)</b>      |                                    |
| • MPI/PROFIBUS DP                      | Yes                                |
| • USB                                  | Yes                                |
| • Ethernet                             | Yes                                |
| • using external storage medium        | Yes                                |
| <b>Process coupling</b>                |                                    |
| • S7-1200                              | Yes                                |
| • S7-1500                              | Yes                                |
| • S7-200                               | Yes                                |
| • S7-300/400                           | Yes                                |
| • LOGO!                                | Yes                                |
| • WinAC                                | Yes                                |
| • SINUMERIK                            | Yes; with SINUMERIK option package |
| • 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   |
| <b>Service tools/configuration aids</b>                |   |
| • Backup/Restore manually                              | Yes   |
| • Backup/Restore automatically                         | Yes   |
| • Simulation   | Yes   |
| • Device switchover                                    | Yes   |
| <b>Peripherals/Options</b>                             |   |
| 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   |
| SIMATIC HMI USB stick                                  | Yes   |
| Network camera   | Yes   |
| <b>Mechanics/material</b>                              |   |
| Enclosure material (front)                             |   |
| • Plastic  | Yes   |
| • Aluminum   | No  |
| • Stainless steel                                      | No  |
| <b>Dimensions</b>                                      |   |
| Width of the housing front                             | 140 mm  |
| Height of housing front                                | 116 mm  |
| Mounting cutout, width                                 | 123 mm  |
| Mounting cutout, height                                | 99 mm   |
| Overall depth  | 49 mm   |
| <b>Weights</b>   |   |
| Weight without packaging                               | 0.6 kg  |
| Weight incl. packaging                                 | 0.7 kg  |
| <b>last modified:</b>                                  | 1/16/2021  |