



Figure similar

SIMATIC HMI KP400 Basic Color PN, Basic Panel, key operation, 4" widescreen TFT display, 256 colors, PROFINET interface, configurable from WinCC Basic V11 SP2/ STEP 7 Basic V11 SP2, contains open-source software, which is provided free of charge see enclosed CD

| General information   |                              |
|---|------------------------------|
| Product type designation  | KP400 Basic color PN         |
| Display   |                              |
| Design of display   | TFT                          |
| Screen diagonal   | 4.3 in                       |
| Display width   | 95 mm                        |
| Display height  | 53.8 mm                      |
| Number of colors  | 256                          |
| Resolution (pixels)   |                              |
| • Horizontal image resolution   | 480 pixel                    |
| • Vertical image resolution   | 272 pixel                    |
| Backlighting  |                              |
| • MTBF backlighting (at 25 °C)  | 50 000 h                     |
| • Backlight dimmable  | No                           |
| Control elements  |                              |
| Keyboard fonts  |                              |
| • Function keys   |                              |
| — Number of function keys   | 8                            |
| — Number of function keys with LEDs                                   | 0                            |
| • Keys with LED   | No                           |
| • System keys   | Yes                          |
| • Numeric keyboard  | Yes; Keyboard                |
| • alphanumeric keyboard   | Yes; similar to mobile phone |
| Touch operation   |                              |
| • Design as touch screen  | No; without                  |
| Installation type/mounting  |                              |
| Mounting position   | vertical                     |
| Wall mounting/direct mounting   | No                           |
| 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)                                     | 0.1 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.                         | 2 W                          |
| <b>Processor</b>                                 |                              |
| Processor type                                   | RISC 32 bit                  |
| <b>Memory</b>                                    |                              |
| Flash  | Yes                          |
| RAM  | Yes                          |
| Memory available for user data                   | 1 Mbyte                      |
| <b>Type of output</b>                            |                              |
| Acoustics  |                              |
| • Buzzer   | No                           |
| • Speaker  | No                           |
| <b>Time of day</b>                               |                              |
| Clock  |                              |
| • Hardware clock (real-time)                     | No                           |
| • Software clock                                 | Yes                          |
| • retentive                                      | No                           |
| • synchronizable                                 | Yes                          |
| <b>Interfaces</b>                                |                              |
| 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                              |                              |
| • Industrial Ethernet status LED                 | 2                            |
| <b>Protocols</b>                                 |                              |
| PROFINET   | Yes                          |
| Supports protocol for PROFINET IO                | No                           |
| IRT  | No                           |
| PROFIBUS   | No                           |
| EtherNet/IP                                      | Yes                          |
| MPI  | No                           |
| Protocols (Ethernet)                             |                              |
| • TCP/IP   | Yes                          |
| • DHCP   | Yes                          |
| • SNMP   | Yes                          |
| • DCP  | Yes                          |
| • LLDP   | Yes                          |
| WEB characteristics                              |                              |
| • HTTP   | No                           |
| • HTML   | No                           |
| Further protocols                                |                              |
| • CAN  | No                           |
| • MODBUS   | Yes; Modicon (MODBUS TCP/IP) |
| <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)  | IP20                         |
| NEMA (front)                                     |                              |
| • Enclosure Type 4 at the front                  | Yes                          |

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| • 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  | 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   |
| <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, 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>pre-installed operating system</b>                    |  |
| • Windows CE   | No   |
| <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  |
| <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                                 | No   |
| • WinCC flexible Standard                                | No   |
| • WinCC flexible Advanced                                | No   |
| • 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  |

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| Task planner                           |  |
| • time-controlled                      | No   |
| • task-controlled                      | Yes  |
| Help system                            | Yes  |
| • Number of characters per info text   | 320  |
| <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; No permanent window can be configured |
| • 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; Predefined screen objects             |
| • 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   |

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| • Media Player   | No     |
| • Bar graphs   | Yes    |
| • Sliders  | No     |
| • Pointer instruments                                  | No     |
| • Analog/digital clock                                 | No     |
| <b>Lists</b>   |        |
| • 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     |
| <b>Archiving</b>                                       |        |
| • Number of archives per device                        | 0      |
| <b>Security</b>  |        |
| • Number of user groups                                | 50     |
| • Number of user rights                                | 32     |
| • Number of users                                      | 50     |
| • Password export/import                               | No     |
| • SIMATIC Logon  | No     |
| <b>Character sets</b>                                  |        |
| • Keyboard fonts<br>— US English                       | Yes    |
| <b>Transfer (upload/download)</b>                      |        |
| • MPI/PROFIBUS DP                                      | No     |
| • USB  | No     |
| • Ethernet   | Yes    |
| • using external storage medium                        | No     |
| <b>Process coupling</b>                                |        |
| • S7-1200  | Yes    |
| • S7-1500  | Yes    |
| • S7-200   | Yes    |
| • S7-300/400   | Yes    |
| • LOGO!  | Yes    |
| • WinAC  | No     |
| • 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)                                     | No     |
| <b>Service tools/configuration aids</b>                |        |
| • Backup/Restore manually                              | Yes    |
| • Backup/Restore automatically                         | No     |
| • Simulation   | Yes    |
| • Device switchover                                    | Yes    |
| <b>Peripherals/Options</b>                             |        |
| Printer  | No     |
| SIMATIC HMI MM memory card: Multi Media Card           | No     |
| SIMATIC HMI SD memory card: Secure Digital memory card | No     |
| USB memory   | No     |
| <b>Mechanics/material</b>                              |        |
| Enclosure material (front)                             |        |
| • Plastic  | Yes    |
| • Aluminum   | No     |
| • Stainless steel                                      | No     |
| <b>Dimensions</b>                                      |        |
| Width of the housing front                             | 162 mm |

|                            |         |
|----------------------------|---------|
| Height of housing front    | 189 mm  |
| Mounting cutout, width     | 135 mm  |
| Mounting cutout, height    | 171 mm  |
| Overall depth              | 33 mm   |
| <b>Weights</b>             |         |
| Weight (without packaging) | 0.51 kg |
| Weight (with packaging)    | 0.66 kg |

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