

SIMATIC HMI, KTP1200 Basic DP, Basic Panel, Key/touch operation, 12" TFT display, 65536 colors, PROFIBUS interface, configurable as of WinCC Basic V13/ STEP 7 Basic V13, contains open-source software, which is provided free of charge see enclosed CD



| General information            |  |
|--------------------------------|--|
| Product type designation       | KTP1200 Basic color DP                   |
| Display                        |  |
| Design of display              | TFT widescreen display, LED backlighting |
| Screen diagonal                | 12 in                                    |
| Display width                  | 261.1 mm                                 |
| Display height                 | 163.2 mm                                 |
| Number of colors               | 65 536                                   |
| Resolution (pixels)            |  |
| • Horizontal image resolution  | 1 280 Pixel                              |
| • Vertical image resolution    | 800 Pixel                                |
| Backlighting                   |  |
| • MTBF backlighting (at 25 °C) | 20 000 h                                 |
| • Backlight dimmable           | Yes                                      |
| Control elements               |  |
| Keyboard fonts                 |  |
| • Function keys                |  |
| — Number of function keys      | 10                                       |

|   |   |
|---|---|
| — Number of function keys with LEDs                                   | 0                                       |
| • Keys with LED   | No                                      |
| • System keys   | No                                      |
| • Numeric keyboard  | Yes; Onscreen keyboard                  |
| • alphanumeric keyboard   | Yes; Onscreen keyboard                  |
| <b>Touch operation</b>  |   |
| • Design as touch screen  | Yes                                     |
| <b>Installation type/mounting</b>                                     |   |
| Mounting position   | vertical                                |
| Mounting in portrait format possible                                  | Yes                                     |
| Mounting in landscape format possible                                 | Yes                                     |
| maximum permissible angle of inclination without external ventilation | 35°                                     |
| <b>Supply voltage</b>   |   |
| 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                                  |
| <b>Input current</b>  |   |
| Current consumption (rated value)                                     | 550 mA                                  |
| Starting current inrush I <sup>2</sup> t                              | 0.2 A <sup>2</sup> ·s                   |
| <b>Power</b>  |   |
| Active power input, typ.  | 13.2 W                                  |
| <b>Processor</b>  |   |
| Processor type  | ARM                                     |
| <b>Memory</b>   |   |
| Flash   | Yes                                     |
| RAM   | Yes                                     |
| Memory available for user data  | 10 Mbyte                                |
| <b>Type of output</b>   |   |
| Acoustics   |   |
| • Buzzer  | Yes                                     |
| • Speaker   | No                                      |
| <b>Time of day</b>  |   |
| 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 | 0                        |
| Number of RS 485 interfaces              | 1                        |
| Number of RS 422 interfaces              | 1; together with RS 485  |
| Number of RS 232 interfaces              | 0; with optional adapter |
| Number of USB interfaces                 | 1; Up to 16 GB           |
| 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 0

## Protocols

|                                   |     |
|-----------------------------------|-----|
| PROFINET                          | No  |
| Supports protocol for PROFINET IO | No  |
| IRT                               | No  |
| PROFIBUS                          | Yes |
| MPI                               | Yes |

### Protocols (Ethernet)

- TCP/IP No
- DHCP No
- SNMP No
- DCP No
- LLDP No

### WEB characteristics

- HTTP No
- HTML No

### Redundancy mode

- MRP No

### Further protocols

- CAN No
- EtherNet/IP No
- MODBUS Yes; Modicon (MODBUS RTU)

## Interrupts/diagnostics/status information

### Diagnostic messages

- Diagnostic information readable 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  |
| Enclosure Type 4 at the front                        | Yes   |
| Enclosure Type 4x at the front                       | Yes   |
| IP (rear)  | IP20  |
| Standards, approvals, certificates                   |       |
| CE mark  | Yes   |
| cULus  | Yes   |
| RCM (formerly C-TICK)                                | Yes   |
| KC approval  | Yes   |
| Use in hazardous areas                               |       |
| • ATEX Zone 2  | No    |
| • ATEX Zone 22                                       | No    |
| • IECEx Zone 2                                       | No    |
| • IECEx Zone 22                                      | No    |
| • cULus Class I Zone 1                               | No    |
| • cULus Class I Zone 2, Division 2                   | No    |
| • FM Class I Division 2                              | No    |
| Marine approval                                      |       |
| • 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    |
| • Chinese Classification Society (CCS)               | No    |
| Ambient conditions                                   |       |
| 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.                    | 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 |
| • Operation (max. tilt angle, portrait format)       |       |

|  |  |
|--|--|
| — At maximum tilt angle, min.                            | 0 °C   |
| — At maximum tilt angle, min.                            | 35 °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</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                     | 10   |
| <b>Project languages</b>                                 |  |
| • Languages per project                                  | 32   |
| <b>Functionality under WinCC (TIA Portal)</b>            |  |
| Libraries  | Yes  |
| <b>Applications/options</b>                              |  |
| • Web browser  | No   |
| • SIMATIC WinCC Sm@rtServer                              | No   |
| Number of Visual Basic Scripts                           | No   |
| <b>Task planner</b>                                      |  |
| • time-controlled  | No   |

|  |   |
|--|---|
| • task-controlled  | Yes   |
| Help system  | Yes   |
| • Number of characters per info text                             | 500   |
| <b>Message system</b>  |   |
| • Number of alarm classes  | 32  |
| • Bit messages   |   |
| — Number of bit messages   | 1 000   |
| • Analog messages  |   |
| — Number of analog messages                                      | 25  |
| • S7 alarm number procedure                                      | No  |
| • System messages HMI  | Yes   |
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
| • 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  | 50  |
| • Data records per recipe  | 100   |
| • Entries per data record  | 100   |
| • Size of internal recipe memory                                 | 256 kbyte   |
| • Recipe memory expandable                                       | No  |
| <b>Variables</b>   |   |
| • Number of variables per device                                 | 800   |
| • Number of variables per screen                                 | 100   |
| • Limit values   | Yes   |
| • Multiplexing   | Yes   |
| • Structures   | No  |
| • Arrays   | Yes   |
| <b>Images</b>  |   |
| • Number of configurable images                                  | 250   |
| • Permanent window/default                                       | Yes   |
| • Global image   | Yes   |
| • Pop-up images  | No  |
| • Slide-in images  | No  |

|  |   |
|--|---|
| • Image selection by PLC               | Yes   |
| • Image number in the PLC              | Yes   |
| <b>Image objects</b>                   |   |
| • Number of objects per image          | 100   |
| • 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 | 10  |
| • 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              | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
| • Media Player                         | No  |
| • HTML browser                         | No  |
| • PDF display                          | No  |
| • IP camera display                    | No  |
| • Bar graphs                           | Yes   |
| • Sliders                              | No  |
| • Pointer instruments                  | No  |
| • Analog/digital clock                 | No  |
| <b>Lists</b>                           |   |
| • Number of text lists per project     | 300   |
| • Number of entries per text list      | 100   |
| • Number of graphics lists per project | 100   |
| • Number of entries per graphics list  | 100   |
| <b>Archiving</b>                       |   |
| • Number of archives per device        | 2; One message and one process value archive                  |
| • 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                     | No                         |
| — USB memory                      | Yes                        |
| — Ethernet                        | No                         |
| • Data storage format             |                            |
| — CSV                             | No                         |
| — TXT                             | Yes                        |
| — RDB                             | No                         |
| <b>Security</b>                   |                            |
| • Number of user groups           | 50                         |
| • Number of user rights           | 32                         |
| • Number of users                 | 50                         |
| • Password export/import          | Yes                        |
| • SIMATIC Logon                   | No                         |
| <b>Character sets</b>             |                            |
| • Keyboard fonts                  |                            |
| — US English                      | Yes                        |
| <b>Transfer (upload/download)</b> |                            |
| • MPI/PROFIBUS DP                 | Yes                        |
| • USB                             | No                         |
| • Ethernet                        | No                         |
| • 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; No access to NCK data |
| • SIMOTION                        | Yes                        |
| • Allen Bradley (EtherNet/IP)     | No                         |
| • Allen Bradley (DF1)             | Yes                        |
| • Mitsubishi (MC TCP/IP)          | No                         |
| • Mitsubishi (FX)                 | Yes                        |
| • OMRON (FINS TCP)                | No                         |



|                           |     |
|---------------------------|-----|
| • OMRON (LINK/Multilink)  | Yes |
| • Modicon (Modbus TCP/IP) | No  |
| • Modicon (Modbus)        | Yes |

#### Service tools/configuration aids

|                                |     |
|--------------------------------|-----|
| • Backup/Restore manually      | Yes |
| • Backup/Restore automatically | No  |
| • Simulation                   | Yes |
| • Device switchover            | Yes |

#### Peripherals/Options

|  |     |
|--|-----|
| Peripherals  |     |
| • Printer  | No  |
| • SIMATIC HMI MM memory card: Multi Media Card           | No  |
| • SIMATIC HMI SD memory card: Secure Digital memory card | No  |
| • SIMATIC HMI CF memory card Compact Flash Card          | No  |
| • USB memory   | Yes |
| • SIMATIC IPC USB Flashdrive (USB stick)                 | Yes |
| • SIMATIC HMI USB stick                                  | Yes |

#### Mechanics/material

|                            |     |
|----------------------------|-----|
| Enclosure material (front) |     |
| • Plastic                  | Yes |
| • Aluminum                 | No  |
| • Stainless steel          | No  |

#### Dimensions

|                            |        |
|----------------------------|--------|
| Width of the housing front | 330 mm |
| Height of housing front    | 245 mm |
| Mounting cutout, width     | 310 mm |
| Mounting cutout, height    | 221 mm |
| Overall depth              | 60 mm  |

#### Weights

|                          |         |
|--------------------------|---------|
| Weight without packaging | 1 710 g |
| Weight incl. packaging   | 2.2 kg  |

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