

SIMATIC HMI, KTP1200 Basic, Basic Panel, Key/touch operation, 12" TFT display, 65536 colors, PROFINET interface, configurable from 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 PN                   |
| 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                   |
| Touch operation                                                       |                                          |
| • Design as touch screen                                              | Yes; Analog-resistive                    |
| Installation type/mounting                                            |                                          |
| Mounting position                                                     | vertical                                 |
| 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)                                     | 510 mA                                   |
| Starting current inrush I <sup>2</sup> t                              | 0.2 A <sup>2</sup> ·s                    |
| Power                                                                 |                                          |

|                                                  |                                         |
|--------------------------------------------------|-----------------------------------------|
| Active power input, typ.                         | 12.2 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                                     |
| <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                         | 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                                      |
| <b>Industrial Ethernet</b>                       |                                         |
| • 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                                      |
| <b>Protocols (Ethernet)</b>                      |                                         |
| • TCP/IP                                         | Yes                                     |
| • DHCP                                           | Yes                                     |
| • DCP                                            | Yes                                     |
| • LLDP                                           | Yes                                     |
| <b>WEB characteristics</b>                       |                                         |
| • HTTP                                           | No                                      |
| • HTML                                           | No                                      |
| <b>Redundancy mode</b>                           |                                         |
| Media redundancy                                 |                                         |
| — MRP                                            | No                                      |
| <b>Further protocols</b>                         |                                         |
| • CAN                                            | No                                      |
| • MODBUS                                         | Yes; Modicon (MODBUS TCP/IP)            |
| <b>Interrupts/diagnostics/status information</b> |                                         |
| Diagnoses                                        |                                         |
| • Diagnostic information readable                | No                                      |
| <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                                          |
| • 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                                           |
| • 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                                           |
| <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                                           |
| • 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.                        | 50 °C                                        |
| Operation (max. tilt angle)                              |                                              |
| — At maximum tilt angle, min.                            | 0 °C                                         |
| — At maximum tilt angle, max.                            | 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, max.                            | 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                                          |
| pre-installed operating system                           |                                              |
| • 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
- WinCC Basic (TIA Portal)
- WinCC Comfort (TIA Portal)
- WinCC Advanced (TIA Portal)
- WinCC Professional (TIA Portal)

No  
Yes  
Yes  
Yes  
Yes

## Languages

### Online languages

- Number of online/runtime languages

10

### Project languages

- Languages per project

32

## Functionality under WinCC (TIA Portal)

### Libraries

Yes

### Applications/options

- Web browser
- SIMATIC WinCC Sm@rtServer

Yes  
Yes; Available with WinCC (TIA Portal) V14 or higher

### Number of Visual Basic Scripts

No

### Task planner

- time-controlled
- task-controlled

No  
Yes

### Help system

- Number of characters per info text

500

### Message system

- Number of alarm classes
- Bit messages
  - Number of bit messages
- Analog messages
  - Number of analog messages
- S7 alarm number procedure
- System messages HMI
- System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... )
- Number of characters per message
- Number of process values per message
- Acknowledgment groups
- Message indicator
- Message buffer
  - Number of entries
  - Circulating buffer
  - retentive
  - maintenance-free

32  
1 000  
25  
No  
Yes  
Yes; System message buffer of the SIMATIC S7-1200 and S7-1500  
80  
8  
Yes  
Yes  
256  
Yes  
Yes  
Yes

### Recipe management

- Number of recipes
- Data records per recipe
- Entries per data record
- Size of internal recipe memory
- Recipe memory expandable

50  
100  
100  
256 kbyte  
No

### Variables

- Number of variables per device
- Number of variables per screen
- Limit values
- Multiplexing
- Structures
- Arrays

800  
100  
Yes  
Yes  
No  
Yes

### Images

- Number of configurable images
- Permanent window/default
- Global image
- Pop-up images
- Slide-in images
- Image selection by PLC
- Image number in the PLC

250  
Yes  
Yes  
No  
No  
Yes  
Yes

|                                        |                                                               |
|----------------------------------------|---------------------------------------------------------------|
| Image objects                          |                                                               |
| • 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                                                           |
| Complex image objects                  |                                                               |
| • 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                         | Yes                                                           |
| • PDF display                          | No                                                            |
| • IP camera display                    | No                                                            |
| • Bar graphs                           | Yes                                                           |
| • Sliders                              | No                                                            |
| • Pointer instruments                  | No                                                            |
| • Analog/digital clock                 | No                                                            |
| Lists                                  |                                                               |
| • 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                                                           |
| Archiving                              |                                                               |
| • 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                                                            |
| Security                               |                                                               |
| • Number of user groups                | 50                                                            |
| • Number of user rights                | 32                                                            |
| • Number of users                      | 50                                                            |
| • Password export/import               | Yes                                                           |
| • SIMATIC Logon                        | No                                                            |
| Character sets                         |                                                               |
| • Keyboard fonts                       |                                                               |
| — US English                           | Yes                                                           |
| Transfer (upload/download)             |                                                               |

|                                                        |                            |         |                |
|--------------------------------------------------------|----------------------------|---------|----------------|
| • MPI/PROFIBUS DP                                      | No                         |         |                |
| • USB                                                  | No                         |         |                |
| • Ethernet                                             | Yes                        |         |                |
| • using external storage medium                        | Yes                        |         |                |
| Process coupling                                       |                            |         |                |
| • 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)                          | 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                         |         |                |
| Service tools/configuration aids                       |                            |         |                |
| • Backup/Restore manually                              | Yes                        |         |                |
| • Backup/Restore automatically                         | No                         |         |                |
| • Simulation                                           | Yes                        |         |                |
| • Device switchover                                    | Yes                        |         |                |
| Peripherals/Options                                    |                            |         |                |
| 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                                          | 54.9 mm                    |         |                |
| Weights                                                |                            |         |                |
| Weight (without packaging)                             | 1 710 g                    |         |                |
| Weight (with packaging)                                | 2.2 kg                     |         |                |
| Classifications                                        |                            |         |                |
|                                                        |                            | Version | Classification |
|                                                        | 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                       | 9       | EC001412       |

|        |    |             |
|--------|----|-------------|
| ETIM   | 8  | EC001412    |
| ETIM   | 7  | EC001412    |
| IDEA   | 4  | 6607        |
| UNSPSC | 15 | 43-21-15-06 |

Approvals / Certificates

General Product Approval

[Miscellaneous](#)



[Manufacturer Declaration](#)



[KC](#)

General Product Approval

Maritime application



[NK / Nippon Kaiji Kyokai](#)

Maritime application

[CCS \(China Classification Society\)](#)



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