

SIMATIC HMI KTP700 Mobile, 7.0" TFT display, 800x 480 pixel, 16m colors, key and touch operation, 8 function keys, 1x PROFINET/Industrial Ethernet interface, 1x multimedia card, 1x USB, configurable from WinCC Comfort V13 SP1



| General information                                       |                                          |
|-----------------------------------------------------------|------------------------------------------|
| Product type designation                                  | KTP700 Mobile                            |
| Display                                                   |                                          |
| Design of display                                         | TFT widescreen display, LED backlighting |
| Screen diagonal                                           | 7 in                                     |
| Color display                                             | Yes                                      |
| Number of colors                                          | 16 777 216                               |
| Resolution (pixels)                                       |                                          |
| • Horizontal image resolution                             | 800 pixel                                |
| • Vertical image resolution                               | 480 pixel                                |
| Backlighting                                              |                                          |
| • MTBF backlighting (at 25 °C)                            | 50 000 h                                 |
| • Backlight dimmable                                      | Yes; 0-100 %                             |
| Control elements                                          |                                          |
| Keyboard                                                  |                                          |
| • Function keys                                           |                                          |
| — Number of function keys                                 | 8                                        |
| — Number of function keys with LEDs                       | 8                                        |
| • Keys with LED                                           | Yes                                      |
| • Numeric keyboard                                        | Yes; Onscreen keyboard                   |
| • alphanumeric keyboard                                   | Yes; Onscreen keyboard                   |
| Touch operation                                           |                                          |
| • Design as touch screen                                  | Yes                                      |
| • Design as multi-touch screen                            | No                                       |
| Special operator controls                                 |                                          |
| • Stop button (forced blocking)                           | No                                       |
| • Emergency stop button (illuminated and forced blocking) | No                                       |
| • Acknowledgement button (3-stage)                        | No                                       |
| • Key-operated switch                                     | No                                       |
| • Illuminated pushbutton                                  | Yes                                      |
| Camera                                                    |                                          |
| • integrated camera                                       | No                                       |
| Expansions for operator control of the process            |                                          |
| • DP direct LEDs (LEDs as S7 output I/O)                  |                                          |
| — F1...Fx                                                 | 8                                        |
| • Direct keys (keys as S7 input I/O)                      |                                          |
| — F1...Fx                                                 | 8                                        |
| • Direct keys (touch buttons as S7 input I/O)             | 32                                       |
| 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                  |
| <b>Input current</b>                     |                         |
| Current consumption (rated value)        | 350 mA                  |
| Starting current inrush I <sup>2</sup> t | 0.135 A <sup>2</sup> ·s |
| <b>Power</b>                             |                         |
| Active power input, typ.                 | 8.5 W                   |
| <b>Processor</b>                         |                         |
| Processor type                           | ARM                     |
| <b>Storage</b>                           |                         |
| Flash                                    | Yes                     |
| RAM                                      | Yes                     |
| Memory available for user data           | 12 Mbyte                |
| <b>Type of output</b>                    |                         |
| Power LED                                | No                      |
| LED for safe                             | No                      |
| LED for communication                    | No                      |
| LED for battery                          | No                      |
| Vibrations                               | No                      |
| <b>Time of day</b>                       |                         |
| Clock                                    |                         |
| • Hardware clock (real-time)             | Yes                     |
| • retentive                              | Yes                     |
| • synchronizable                         | Yes                     |
| <b>Interfaces</b>                        |                         |
| Number of industrial Ethernet interfaces | 1                       |
| Number of PROFINET 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; USB 2.0              |
| Number of wireless interfaces            | 0                       |
| Number of SD card slots                  | 1                       |
| <b>Protocols</b>                         |                         |
| PROFINET                                 | Yes                     |
| PROFINET IO                              | Yes                     |
| PROFIsafe                                | No                      |
| PROFIBUS                                 | No                      |
| EtherNet/IP                              | Yes                     |
| MPI                                      | No                      |
| Protocols (Ethernet)                     |                         |
| • TCP/IP                                 | Yes                     |
| • DHCP                                   | Yes                     |
| • SNMP                                   | Yes                     |
| • DCP                                    | Yes                     |
| • LLDP                                   | Yes                     |
| WEB characteristics                      |                         |
| • HTTP                                   | Yes                     |
| • HTTPS                                  | Yes                     |
| • HTML                                   | Yes                     |
| • XML                                    | No                      |
| • CSS                                    | Yes                     |
| • Active X                               | No                      |
| • JavaScript                             | Yes                     |
| • Java VM                                | No                      |
| Redundancy mode                          |                         |

|                                                                |          |
|----------------------------------------------------------------|----------|
| Media redundancy                                               |          |
| — MRP                                                          | Yes      |
| Further protocols                                              |          |
| • MODBUS                                                       | Yes      |
| • other bus systems                                            | No       |
| Communication functions                                        |          |
| Wireless communication                                         |          |
| • supported standards                                          |          |
| — Radio standard WLAN 802.11                                   | No       |
| — Bluetooth radio standard                                     | No       |
| Interrupts/diagnostics/status information                      |          |
| Diagnoses                                                      |          |
| • Diagnostic information readable                              | Yes      |
| 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                                 |          |
| IP65 (all-round)                                               | Yes      |
| Standards, approvals, certificates                             |          |
| CE mark                                                        | Yes      |
| cULus                                                          | Yes      |
| RCM (formerly C-TICK)                                          | Yes      |
| KC approval                                                    | Yes      |
| Suitable for safety functions                                  | No       |
| Marine approval                                                | Yes      |
| Ecological footprint                                           |          |
| • environmental product declaration                            | Yes      |
| Global warming potential                                       |          |
| — global warming potential, (total) [CO2 eq]                   | 157 kg   |
| — global warming potential, (during production) [CO2 eq]       | 45 kg    |
| — global warming potential, (during operation) [CO2 eq]        | 114 kg   |
| — global warming potential, (after end of life cycle) [CO2 eq] | -1.55 kg |
| Highest safety class achievable in safety mode                 |          |
| • Performance level according to ISO 13849-1                   | none     |
| • SIL acc. to IEC 61508                                        | No       |
| 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)                                          | No       |
| • Det Norske Veritas (DNV)                                     | Yes      |
| • Korean Register of Shipping (KRS)                            | No       |
| • Lloyds Register of Shipping (LRS)                            | Yes      |
| • Nippon Kaiji Kyokai (Class NK)                               | Yes      |
| • Polski Rejestr Statkow (PRS)                                 | No       |
| • Chinese Classification Society (CCS)                         | Yes      |
| Ambient conditions                                             |          |
| Free fall                                                      |          |

|                                                   |        |
|---------------------------------------------------|--------|
| • Fall height, max.                               | 1.2 m  |
| Ambient temperature during operation              |        |
| • min.                                            | 0 °C   |
| • max.                                            | 45 °C  |
| Ambient temperature during storage/transportation |        |
| • min.                                            | -20 °C |
| • max.                                            | 60 °C  |
| Relative humidity                                 |        |
| • Operation, max.                                 | 90 %   |
| Operating systems                                 |        |
| pre-installed operating system                    |        |
| • Windows CE                                      | Yes    |
| Configuration                                     |        |
| Message indicator                                 | Yes    |
| Alarm system (incl. buffer and acknowledgment)    | Yes    |
| Process value display (output)                    | Yes    |
| Process value default (input) possible            | Yes    |
| Recipe management                                 | Yes    |
| Configuration software                            |        |
| • STEP 7 Basic (TIA Portal)                       | No     |
| • STEP 7 Professional (TIA Portal)                | No     |
| • WinCC flexible Compact                          | No     |
| • WinCC flexible Standard                         | No     |
| • WinCC flexible Advanced                         | No     |
| • WinCC Basic (TIA Portal)                        | No     |
| • WinCC Comfort (TIA Portal)                      | Yes    |
| • WinCC Advanced (TIA Portal)                     | Yes    |
| • WinCC Professional (TIA Portal)                 | Yes    |
| Languages                                         |        |
| Online languages                                  |        |
| • Number of online/runtime languages              | 32     |
| Project languages                                 |        |
| • Languages per project                           | 32     |
| Functionality under WinCC (TIA Portal)            |        |
| Libraries                                         | Yes    |
| Applications/options                              |        |
| • Web browser                                     | Yes    |
| • Pocket Word                                     | No     |
| • Pocket Excel                                    | No     |
| • PDF Viewer                                      | Yes    |
| • Media Player                                    | No     |
| • SIMATIC WinCC Sm@rtServer                       | Yes    |
| • SIMATIC WinCC Audit                             | Yes    |
| Number of Visual Basic Scripts                    | Yes    |
| Task planner                                      |        |
| • time-controlled                                 | Yes    |
| • task-controlled                                 | Yes    |
| Help system                                       |        |
| • Number of characters per info text              | 500    |
| Multiproject                                      |        |
| • Number of projects (internal)                   | 0      |
| • Number of projects (external)                   | 0      |
| Message system                                    |        |
| • Number of alarm classes                         | 32     |
| • Bit messages                                    |        |
| — Number of bit messages                          | 4 000  |
| • Analog messages                                 |        |
| — Number of analog messages                       | 200    |
| • S7 alarm number procedure                       | Yes    |

|                                                              |         |
|--------------------------------------------------------------|---------|
| • System messages HMI                                        | Yes     |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... ) | Yes     |
| • Number of characters per message                           | 80      |
| • Number of process values per message                       | 8       |
| • Acknowledgment groups                                      | Yes     |
| • Message indicator                                          | Yes     |
| • Message buffer                                             |         |
| — Number of entries                                          | 1 024   |
| — Circulating buffer                                         | Yes     |
| — retentive                                                  | Yes     |
| — maintenance-free                                           | Yes     |
| Recipe management                                            |         |
| • Number of recipes                                          | 300     |
| • Data records per recipe                                    | 500     |
| • Entries per data record                                    | 1 000   |
| • Size of internal recipe memory                             | 2 Mbyte |
| • Recipe memory expandable                                   | Yes     |
| Variables                                                    |         |
| • Number of variables per device                             | 2 048   |
| • Number of variables per screen                             | 400     |
| • Limit values                                               | Yes     |
| • Multiplexing                                               | Yes     |
| • Structures                                                 | Yes     |
| • Arrays                                                     | Yes     |
| Images                                                       |         |
| • Number of configurable images                              | 500     |
| • Permanent window/default                                   | Yes     |
| • Global image                                               | Yes     |
| • Image selection by PLC                                     | Yes     |
| • Image number in the PLC                                    | Yes     |
| Image objects                                                |         |
| • Number of objects per image                                | 400     |
| • 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     |
| • Graphic display                                            | Yes     |
| • Icons                                                      | Yes     |
| • Geometric objects                                          | Yes     |
| Complex image objects                                        |         |
| • Number of complex objects per screen                       | 20      |
| • 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                                               | No      |
| • Bar graphs                                                 | Yes     |
| • Sliders                                                    | Yes     |
| • Pointer instruments                                        | Yes     |
| • Analog/digital clock                                       | Yes     |
| Lists                                                        |         |
| • Number of text lists per project                           | 500     |

|                                         |                     |
|-----------------------------------------|---------------------|
| • Number of entries per text list       | 500                 |
| • Number of graphics lists per project  | 500                 |
| • Number of entries per graphics list   | 500                 |
| <b>Archiving</b>                        |                     |
| • Number of archives per device         | 50                  |
| • Number of entries per archive         | 20 000              |
| • 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                                   | No                  |
| — 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                              | No                  |
| • Electronic print to file              | No                  |
| <b>Character sets</b>                   |                     |
| • Keyboard fonts                        |                     |
| — US English                            | Yes                 |
| <b>Transfer (upload/download)</b>       |                     |
| • MPI/PROFIBUS DP                       | No                  |
| • USB                                   | No                  |
| • Ethernet                              | Yes                 |
| • Wireless LAN                          | No                  |
| • using external storage medium         | Yes; Backup/restore |
| <b>Process coupling</b>                 |                     |
| • S7-1200                               | Yes                 |
| • S7-1500                               | Yes                 |
| • S7-200                                | Yes                 |
| • S7-300/400                            | Yes                 |
| • LOGO!                                 | Yes                 |
| • WinAC                                 | Yes; WinAC RTX      |
| • SINUMERIK                             | Yes                 |
| • SIMOTION                              | Yes                 |
| • Allen Bradley (EtherNet/IP)           | Yes                 |
| • Allen Bradley (DF1)                   | No                  |
| • Mitsubishi (MC TCP/IP)                | Yes                 |
| • Mitsubishi (FX)                       | No                  |
| • OMRON (FINS TCP)                      | No                  |
| • OMRON (Host Link)                     | No                  |
| • Modicon (Modbus TCP/IP)               | Yes                 |
| • Modicon (Modbus RTU)                  | No                  |
| • 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

#### Peripherals/Options

|                                                        |                      |
|--------------------------------------------------------|----------------------|
| Printer                                                | Yes                  |
| SIMATIC HMI MM memory card: Multi Media Card           | Yes                  |
| SIMATIC HMI SD memory card: Secure Digital memory card | Yes                  |
| USB memory                                             | Yes                  |
| Network camera                                         | Yes                  |
| Additional software components loadable                | Yes; SIMATIC options |

#### Mechanics/material

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

#### Weights

|                            |        |
|----------------------------|--------|
| Weight (without packaging) | 1.2 kg |
| Weight (with packaging)    | 1.3 kg |

#### Classifications

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 16      | 27-33-02-02    |
| eClass | 14      | 27-33-02-02    |
| eClass | 12      | 27-33-02-02    |
| eClass | 9.1     | 27-33-02-02    |
| eClass | 9       | 27-33-02-02    |
| eClass | 8       | 27-24-23-03    |
| eClass | 7.1     | 27-24-23-03    |
| eClass | 6       | 27-24-23-03    |
| ETIM   | 10      | EC001427       |
| ETIM   | 9       | EC001427       |
| ETIM   | 8       | EC001427       |
| ETIM   | 7       | EC001427       |
| IDEA   | 4       | 6607           |
| UNSPSC | 15      | 43-21-15-06    |

#### Approvals / Certificates

##### General Product Approval

[Miscellaneous](#)

[Manufacturer Declaration](#)



##### General Product Approval

##### Maritime application



[China RoHS](#)



##### Maritime application

##### Environment



[NK / Nippon Kaiji Kyokai](#)



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

[KR \(Korean Register of Shipping\)](#)



