

SIMATIC HMI KTP700 MOBILE, 7.0" TFT DISPLAY, 800 X 480 PIXELS, 16M COLOR, KEY AND TOUCH OPERATION, 8 FUNCTION KEYS, 1 X PROFINET/INDUSTRIAL ETHERNET INTERFACE; 1 X MULTIMEDIA CARD, 1 X USB, CONFIGURABLE FROM WINCC COMFORT V13 SP1



## General information

|                          |                           |
|--------------------------|---------------------------|
| Product type designation | SIMATIC HMI KTP700 Mobile |
|--------------------------|---------------------------|

## Display

|                   |  |
|-------------------|--|
| Design of display | TFT widescreen display, LED backlighting |
| Screen diagonal   | 7 in                                     |
| 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 fonts

|                           |     |
|---------------------------|-----|
| • Function keys           |     |
| — Number of function keys | 8   |
| • Keys with LED           | Yes |
| • System keys             | No  |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Numeric/alphabetical input               <ul style="list-style-type: none"> <li>— Numeric keyboard</li> <li>— alphanumeric keyboard</li> </ul> </li> </ul>   | <p>Yes; Onscreen keyboard</p> <p>Yes; Onscreen keyboard</p>  |
| <b>Touch operation</b>  |  |
| <ul style="list-style-type: none"> <li>• Design as touch screen</li> <li>• Design as multitouch screen</li> </ul>   | <p>Yes</p> <p>No</p>   |
| <b>Special operator controls</b>  |  |
| <ul style="list-style-type: none"> <li>• Stop button (forced blocking)</li> <li>• Emergency stop button (forced blocking)</li> <li>• Emergency stop button (illuminated and forced blocking)</li> <li>• Acknowledgement button (3-stage)</li> <li>• Key-operated switch</li> <li>• Illuminated pushbutton</li> </ul>                                  | <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes</p> |
| <b>Camera</b>   |  |
| <ul style="list-style-type: none"> <li>• integrated camera</li> </ul>   | No   |
| <b>Expansions for operator control of the process</b>   |  |
| <ul style="list-style-type: none"> <li>• DP direct LEDs (LEDs as S7 output I/O)               <ul style="list-style-type: none"> <li>— F1...Fx</li> </ul> </li> <li>• Direct keys (keys as S7 input I/O)               <ul style="list-style-type: none"> <li>— F1...Fx</li> </ul> </li> <li>• Direct keys (touch buttons as S7 input I/O)</li> </ul> | <p>8</p> <p>8</p> <p>32</p>                                  |
| <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)   | 350 mA   |
| Starting current inrush I <sup>2</sup> t  | 0.135 A <sup>2</sup> ·s                                      |
| <b>Power</b>  |  |
| Power consumption, typ.   | 8.5 W  |
| <b>Processor</b>  |  |
| Processor type  | ARM  |
| <b>Memory</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 |

### Time of day

|                                    |     |
|------------------------------------|-----|
| Clock                              |     |
| • Hardware clock (real-time clock) | Yes |
| • Software clock                   | No  |
| • retentive                        | Yes |
| • synchronizable                   | Yes |

### Interfaces

|  |            |
|--|------------|
| Number of industrial Ethernet interfaces | 1          |
| Number of PROFINET interfaces            | 1          |
| Number of RS 485 interfaces              | 0          |
| Number of USB interfaces                 | 1; USB 2.0 |
| Number of 20 mA interfaces (TTY)         | 0          |
| Number of RS 232 interfaces              | 0          |
| Number of RS 422 interfaces              | 0          |
| Number of parallel interfaces            | 0          |
| Number of other interfaces               | 0          |
| Number of SD card slots                  | 1          |
| With software interfaces                 | No         |

### WLAN

|                                 |   |
|---------------------------------|---|
| • Number of wireless interfaces | 0 |
|---------------------------------|---|

### Protocols

|                                   |     |
|-----------------------------------|-----|
| PROFINET                          | Yes |
| Supports protocol for PROFINET IO | Yes |
| PROFIsafe                         | No  |
| PROFIBUS                          | No  |
| 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   |
| <b>Further protocols</b>                                |      |
| • MODBUS  | Yes  |
| • EtherNet/IP   | Yes  |
| • other bus systems                                     | No   |
| <b>Communication functions</b>                          |      |
| <b>Wireless communication</b>                           |      |
| • supported standards                                   |      |
| — Radio standard WLAN 802.11                            | No   |
| — Bluetooth radio standard                              | No   |
| <b>Interrupts/diagnostics/status information</b>        |      |
| <b>Diagnostic messages</b>                              |      |
| • Diagnostic information readable                       | Yes  |
| <b>EMC</b>  |      |
| <b>Emission of radio interference acc. to EN 55 011</b> |      |
| • Limit class A, for use in industrial areas            | Yes  |
| • Limit class B, for use in residential areas           | No   |
| <b>Degree and class of protection</b>                   |      |
| IP65 (all-round)  | Yes  |
| <b>Standards, approvals, certificates</b>               |      |
| CE mark   | Yes  |
| cULus   | Yes  |
| RCM (formerly C-TICK)                                   | Yes  |
| KC approval   | Yes  |
| Suitable for safety functions                           | 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>Highest safety class achievable in safety mode</b>   |      |
| • Performance level according to EN ISO 13849-1:2008    | 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 |

### 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

| proprietary                    | No  |
|--------------------------------|-----|
| pre-installed operating system |     |
| • Windows CE                   | Yes |

### Configuration

| Message indicator                                      | Yes |
|--|-----|
| Alarm logging system (incl. buffer and acknowledgment) | Yes |
| Process value display (output)                         | Yes |
| Process value default (input) possible                 | Yes |
| Recipe administration                                  | 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 messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | 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     |
| <b>Recipe administration</b>           |         |
| • 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     |
| <b>Variables</b>                       |         |
| • Number of variables per device       | 2 048   |
| • Number of variables per screen       | 400     |
| • Limit values                         | Yes     |
| • Multiplexing                         | Yes     |
| • Structures                           | Yes     |
| • Arrays                               | Yes     |
| <b>Images</b>                          |         |
| • Number of configurable images        | 500     |
| • Permanent window/default             | Yes     |
| • Global image                         | Yes     |
| • Image selection by PLC               | Yes     |
| • Image number in the PLC              | Yes     |
| <b>Image objects</b>                   |         |
| • 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     |
| <b>Complex image objects</b>           |         |
| • 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    |
| <b>Lists</b>                           |        |
| • 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    |



| Transfer (upload/download)                               |                      |
|--|----------------------|
| • MPI/PROFIBUS DP  | No                   |
| • USB  | No                   |
| • Ethernet   | Yes                  |
| • Wireless LAN   | No                   |
| • using external storage medium                          | Yes; Backup/restore  |
| Process coupling   |                      |
| • 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 (LINK/Multilink)                                 | No                   |
| • Modicon (Modbus TCP/IP)                                | Yes                  |
| • Modicon (Modbus)                                       | No                   |
| • OPC UA Client  | Yes                  |
| • OPC UA Server  | Yes                  |
| Service tools/configuration aids                         |                      |
| • Backup/Restore manually                                | Yes                  |
| • Backup/Restore automatically                           | Yes                  |
| • Simulation   | Yes                  |
| • Device switchover                                      | Yes                  |
| Peripherals/Options                                      |                      |
| Peripherals  |                      |
| • 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  |

### Dimensions

|                            |          |
|----------------------------|----------|
| Width of the housing front | 248.4 mm |
| Height of housing front    | 171.7 mm |

### Weights

|                          |        |
|--------------------------|--------|
| Weight without packaging | 1.2 kg |
| Weight incl. packaging   | 1.3 kg |

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