

SIMATIC HMI KTP900F MOBILE, 9.0" TFT DISPLAY, 800 X 480 PIXELS, 16M COLOR, KEY AND TOUCH OPERATION, 10 FUNCTION KEYS, 1 X PROFINET/INDUSTRIAL ETHERNET INTERFACE; 1 X MULTIMEDIA CARD, 1 X USB, ACKNOWLEDGEMENT SWITCH, EMERGENCY-STOP BUTTON, CONFIGURABLE FROM WINCC COMFORT V13 SP1



| General information            |  |
|--------------------------------|--|
| Product type designation       | SIMATIC HMI KTP900F Mobile               |
| Display                        |  |
| Design of display              | TFT widescreen display, LED backlighting |
| Screen diagonal                | 9 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      | 10                                       |
| • Keys with LED                | Yes                                      |
| • System keys                  | No                                       |

|   |                         |
|---|-------------------------|
| • Numeric/alphabetical input                              |                         |
| — Numeric keyboard  | Yes; Onscreen keyboard  |
| — alphanumeric keyboard                                   | Yes; Onscreen keyboard  |
| <b>Touch operation</b>                                    |                         |
| • Design as touch screen                                  | Yes                     |
| • Design as multitouch screen                             | No                      |
| <b>Special operator controls</b>                          |                         |
| • Stop button (forced blocking)                           | Yes                     |
| • Emergency stop button (forced blocking)                 | No                      |
| • Emergency stop button (illuminated and forced blocking) | Yes                     |
| • Acknowledgement button (3-stage)                        | Yes                     |
| • Key-operated switch                                     | Yes                     |
| • Illuminated pushbutton                                  | Yes                     |
| <b>Camera</b>   |                         |
| • integrated camera                                       | No                      |
| <b>Expansions for operator control of the process</b>     |                         |
| • DP direct LEDs (LEDs as S7 output I/O)                  |                         |
| — F1...Fx   | 10                      |
| • Direct keys (keys as S7 input I/O)                      |                         |
| — F1...Fx   | 10                      |
| • Direct keys (touch buttons as S7 input I/O)             | 32                      |
| <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)                         | 450 mA                  |
| Starting current inrush $I^2t$                            | 0.135 A <sup>2</sup> ·s |
| <b>Power</b>  |                         |
| Power consumption, typ.                                   | 11 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 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         |

### PROFINET IO

|                                 |   |
|---------------------------------|---|
| • Number of PROFINET interfaces | 1 |
|---------------------------------|---|

### Industrial Ethernet

|  |   |
|--|---|
| • Number of industrial Ethernet interfaces | 1 |
|--|---|

### WLAN

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

### Protocols

|                                   |     |
|-----------------------------------|-----|
| PROFINET                          | Yes |
| Supports protocol for PROFINET IO | Yes |
| PROFIsafe                         | Yes |
| 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                           | Yes |
| <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     | PLe    |
| • SIL acc. to IEC 61508                                  | SIL 3  |
| <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>Ambient conditions</b>                                |        |
| <b>Free fall</b>   |        |
| • Fall height, max.                                      | 1.2 m  |
| <b>Ambient temperature during operation</b>              |        |
| • min.   | 0 °C   |
| • max.   | 45 °C  |
| <b>Ambient temperature during storage/transportation</b> |        |
| • min.   | -20 °C |
| • max.   | 60 °C  |
| <b>Relative humidity</b>                                 |        |
| • Operation, max.  | 90 %   |
| <b>Operating systems</b>                                 |        |
| proprietary  | No     |
| <b>pre-installed operating system</b>                    |        |
| • Windows CE   | Yes    |
| <b>Configuration</b>                                     |        |
| 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    |
| <b>Configuration software</b>                            |        |
| • 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  |
| • Project languages                  |     |
| — D                                  | Yes |
| — GB                                 | Yes |
| — F                                  | Yes |
| — I                                  | Yes |
| — E                                  | Yes |
| — Chinese traditional                | Yes |
| — Chinese simplified                 | Yes |
| — DK                                 | Yes |
| — FIN                                | Yes |
| — GR                                 | Yes |
| — J                                  | Yes |
| — KP / ROK                           | Yes |
| — NL                                 | Yes |
| — N                                  | Yes |
| — PL                                 | Yes |
| — P                                  | Yes |
| — RUS                                | Yes |
| — S                                  | Yes |
| — CZ                                 | Yes |
| — SK                                 | Yes |
| — TR                                 | Yes |
| — H                                  | Yes |

## 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     |
| <b>Multiproject</b>  |         |
| • Number of projects (internal)                                  | 0       |
| • Number of projects (external)                                  | 0       |
| <b>Message system</b>  |         |
| • 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    |
| • Start screen configurable            | 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                 |
| • Fonts                              |                     |
| — Tahoma                             | Yes                 |
| — Arial                              | Yes                 |
| — Courier New                        | Yes                 |
| — WinCC Standard                     | Yes                 |
| — Ideographic languages              | Yes                 |
| • Font size freely scalable          | Yes                 |
| • additional character sets loadable | 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; without NC channel |
| • SIMOTION   | Yes                     |
| • Allen Bradley (EtherNet/IP)                            | Yes                     |
| • Allen Bradley (DF1)                                    | No                      |
| • Mitsubishi (MC TCP/IP)                                 | Yes                     |
| • Mitsubishi (FX)  | Yes                     |
| • OMRON (FINS TCP)                                       | No                      |
| • OMRON (LINK/Multilink)                                 | No                      |
| • Modicon (Modbus TCP/IP)                                | Yes                     |
| • Modicon (Modbus)                                       | No                      |
| • OPC UA Client  | Yes                     |
| • OPC UA Server  | Yes                     |
| <b>Service tools/configuration aids</b>                  |                         |
| • Clean screen   | Yes                     |
| • Touch calibration                                      | Yes                     |
| • Backup/Restore manually                                | Yes                     |
| • Backup/Restore automatically                           | Yes                     |
| • Simulation   | Yes                     |
| • Device switchover                                      | Yes                     |
| • Delta transfer   | No                      |
| <b>Peripherals/Options</b>                               |                         |
| <b>Peripherals</b>                                       |                         |
| • 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    |
| <b>Mechanics/material</b>                                |                         |
| <b>Enclosure material (front)</b>                        |                         |
| • Plastic  | Yes                     |
| • Aluminum   | No                      |
| • Stainless steel  | No                      |

## Dimensions

|                            |          |
|----------------------------|----------|
| Width of the housing front | 307.5 mm |
| Height of housing front    | 223.5 mm |

## Weights

|                          |        |
|--------------------------|--------|
| Weight without packaging | 1.6 kg |
| Weight incl. packaging   | 1.7 kg |

**last modified:** 29.10.2015