

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 fonts

• 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
<b>Touch operation</b>	
• Design as touch screen	Yes
• Design as multi-touch screen	No
<b>Special operator controls</b>	
• 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
<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	8
• Direct keys (keys as S7 input I/O) — F1...Fx	8
• 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)	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>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)	Yes
• retentive	Yes
• synchronizable	Yes

### Interfaces

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 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of wireless interfaces	0
Number of SD card slots	1
With software interfaces	No

### 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>	
• EtherNet/IP	Yes
• MODBUS	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>Diagnoses</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	No; Available soon
Suitable for safety functions	No
Marine approval	Yes
<b>Highest safety class achievable in safety mode</b>	
• Performance level according to ISO 13849-1	none
• SIL acc. to IEC 61508	No
<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)	No; Available soon
• 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)	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 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
<b>Project languages</b>	
• Languages per project	32
<b>Functionality under WinCC (TIA Portal)</b>	
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

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
<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
<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 (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>	
• Backup/Restore manually	Yes
• Backup/Restore automatically	Yes
• Simulation	Yes
• Device switchover	Yes
<b>Peripherals/Options</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>	
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

**last modified:** 10/13/2020