



SIMATIC HMI KTP700F 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, Key-operated switch, acknowledgement button, 1 emergency stop/stop button configurable from WinCC Comfort V13 SP1

General information	
Product type designation	KTP700F 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
Touch operation	
• Design as touch screen	Yes
• Design as multi-touch screen	No
Special operator controls	
• Stop button (forced blocking)	Yes
• Emergency stop button (illuminated and forced blocking)	Yes
• Acknowledgement button (3-stage)	Yes
• Key-operated switch	Yes
• 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

<ul style="list-style-type: none"> <li>• Direct keys (touch buttons as S7 input I/O)</li> </ul>	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>st</sup>	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
<b>Time of day</b>	
Clock	
<ul style="list-style-type: none"> <li>• Hardware clock (real-time)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• retentive</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• synchronizable</li> </ul>	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
Supports protocol for PROFINET IO	Yes
PROFIsafe	Yes
PROFIBUS	No
EtherNet/IP	Yes
MPI	No
Protocols (Ethernet)	
<ul style="list-style-type: none"> <li>• TCP/IP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
WEB characteristics	
<ul style="list-style-type: none"> <li>• HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTML</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• XML</li> </ul>	No
<ul style="list-style-type: none"> <li>• CSS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Active X</li> </ul>	No

• JavaScript	Yes
• Java VM	No
<b>Further protocols</b>	
• 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	Yes
Marine approval	Yes
<b>Highest safety class achievable in safety mode</b>	
• Performance level according to ISO 13849-1	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>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
<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>	
pre-installed operating system	
• Windows CE	Yes
<b>Configuration</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)	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
<b>Languages</b>	
Online languages	
• Number of online/runtime languages	32
Project languages	
• 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 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

<ul style="list-style-type: none"> <li>● Message buffer <ul style="list-style-type: none"> <li>— Number of entries</li> <li>— Circulating buffer</li> <li>— retentive</li> <li>— maintenance-free</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>1 024</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Recipe management</b>	
<ul style="list-style-type: none"> <li>● Number of recipes</li> <li>● Data records per recipe</li> <li>● Entries per data record</li> <li>● Size of internal recipe memory</li> <li>● Recipe memory expandable</li> </ul>	<ul style="list-style-type: none"> <li>300</li> <li>500</li> <li>1 000</li> <li>2 Mbyte</li> <li>Yes</li> </ul>
<b>Variables</b>	
<ul style="list-style-type: none"> <li>● Number of variables per device</li> <li>● Number of variables per screen</li> <li>● Limit values</li> <li>● Multiplexing</li> <li>● Structures</li> <li>● Arrays</li> </ul>	<ul style="list-style-type: none"> <li>2 048</li> <li>400</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Images</b>	
<ul style="list-style-type: none"> <li>● Number of configurable images</li> <li>● Permanent window/default</li> <li>● Global image</li> <li>● Image selection by PLC</li> <li>● Image number in the PLC</li> </ul>	<ul style="list-style-type: none"> <li>500</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Image objects</b>	
<ul style="list-style-type: none"> <li>● Number of objects per image</li> <li>● Text fields</li> <li>● I/O fields</li> <li>● Graphic I/O fields (graphics list)</li> <li>● Symbolic I/O fields (text list)</li> <li>● Date/time fields</li> <li>● Switches</li> <li>● Graphic display</li> <li>● Icons</li> <li>● Geometric objects</li> </ul>	<ul style="list-style-type: none"> <li>400</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Complex image objects</b>	
<ul style="list-style-type: none"> <li>● Number of complex objects per screen</li> <li>● Alarm view</li> <li>● Trend view</li> <li>● User view</li> <li>● Status/control</li> <li>● Sm@rtClient view</li> <li>● Recipe view</li> <li>● f(x) trend view</li> <li>● System diagnostics view</li> <li>● Media Player</li> <li>● Bar graphs</li> <li>● Sliders</li> <li>● Pointer instruments</li> <li>● Analog/digital clock</li> </ul>	<ul style="list-style-type: none"> <li>20</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Lists</b>	
<ul style="list-style-type: none"> <li>● Number of text lists per project</li> <li>● Number of entries per text list</li> <li>● Number of graphics lists per project</li> <li>● Number of entries per graphics list</li> </ul>	<ul style="list-style-type: none"> <li>500</li> <li>500</li> <li>500</li> <li>500</li> </ul>
<b>Archiving</b>	
<ul style="list-style-type: none"> <li>● Number of archives per device</li> <li>● Number of entries per archive</li> </ul>	<ul style="list-style-type: none"> <li>50</li> <li>20 000</li> </ul>

• 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; without NC channel
• 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
<b>Dimensions</b>	
Width of the housing front	248.4 mm
Height of housing front	194.9 mm
<b>Weights</b>	
Weight (without packaging)	1.3 kg
Weight (with packaging)	1.4 kg
<b>last modified:</b>	3/2/2021 