



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
• 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>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> <li>• retentive</li> <li>• synchronizable</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<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> <li>• DHCP</li> <li>• SNMP</li> <li>• DCP</li> <li>• LLDP</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
WEB characteristics	
<ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> <li>• HTML</li> <li>• XML</li> <li>• CSS</li> <li>• Active X</li> <li>• JavaScript</li> <li>• Java VM</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> </ul>
Further protocols	

• MODBUS	Yes
• other bus systems	No
<b>Communication functions</b>	
Wireless communication	
• supported standards	
— Radio standard WLAN 802.11	No
— Bluetooth radio standard	No
<b>Interrupts/diagnostics/status information</b>	
Diagnoses	
• Diagnostic information readable	Yes
<b>EMC</b>	
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
<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
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	PLe
• SIL acc. to IEC 61508	SIL 3
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)	Yes
• Det Norske Veritas (DNV)	Yes
• Korean Register of Shipping (KRS)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes
• Polski Rejestr Statkow (PRS)	No
• Chinese Classification Society (CCS)	Yes
<b>Ambient conditions</b>	
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 %
<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
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
<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
• Message buffer	
— Number of entries	1 024
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
<b>Recipe management</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

Archiving	
• 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
Security	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	Yes
• SIMATIC Logon	Yes
Logging through printer	
• Alarms	Yes
• Report (shift log)	Yes
• Hardcopy	No
• Electronic print to file	No
Character sets	
• 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; 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
Service tools/configuration aids	
• 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)	1.3 kg
Weight (with packaging)	1.4 kg

**Classifications**

	Version	Classification
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**      **EMV**      **Functional Safety**



[China RoHS](#)



[TUEV](#)

[TUEV](#)

**Functional Safety**      **Maritime application**

[Type Examination Certificate](#)



[NK / Nippon Kaiji Kyokai](#)

**Maritime application**      **other**      **Environment**



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

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

[Type Examination Certificate](#)



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