

SIMATIC HMI KTP700F 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, ACKNOWLEDGEMENT SWITCH, EMERGENCY-STOP BUTTON, CONFIGURABLE FROM WINCC COMFORT V13 SP1



General information

Product type designation	SIMATIC HMI KTP700F Mobile
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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

• Numeric/alphabetical input	
— Numeric keyboard	Yes; Onscreen keyboard
— alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
• Design as touch screen	Yes
• Design as multitouch screen	No
Special operator controls	
• 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
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
Input current	
Current consumption (rated value)	350 mA
Starting current inrush I^2t	0.135 A ² ·s
Power	
Power consumption, typ.	8.5 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
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
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Industrial Ethernet

• Number of industrial Ethernet interfaces	1
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WLAN

• Number of wireless interfaces	0
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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
Further protocols	
• MODBUS	Yes
• EtherNet/IP	Yes
• other bus systems	No
Communication functions	
Wireless communication	
• supported standards	
— Radio standard WLAN 802.11	No
— Bluetooth radio standard	No
Interrupts/diagnostics/status information	
Diagnostic messages	
• Diagnostic information readable	Yes
EMC	
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
Degree and class of protection	
IP65 (all-round)	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Suitable for safety functions	Yes
Marine approval	
• 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
Highest safety class achievable in safety mode	

• Performance level according to EN ISO 13849-1:2008	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
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
- 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

- 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

- 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
Recipe administration	
• 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
• Start screen configurable	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
Lists	
• 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
• Fonts	
— Tahoma	Yes
— Arial	Yes
— Courier New	Yes
— WinCC Standard	Yes
— Ideographic languages	Yes
• Font size freely scalable	Yes
• additional character sets loadable	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	
• Clean screen	Yes
• Touch calibration	Yes
• Backup/Restore manually	Yes
• Backup/Restore automatically	Yes
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	No
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	194.9 mm

Weights

Weight without packaging	1.3 kg
Weight incl. packaging	1.4 kg

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