6AV2145-6KB20-0AS0





SIMATIC HMI TP1000F MOBILE 10.0" TFT display, 1280x800 pixels, 16 million colors, Touch operation, touch pen, 1x PROFINET/Industrial Ethernet interface, 1x multimedia card, 1x USB, key-operated switch, acknowledgement button, 1 emergency stop/stop button confiigurable from WinCC Comfort V14

Product type designation TP1000F Mobile Display Design of display Screen diagonal Color display Yes Number of colors Resolution (pixels) Horizontal image resolution Vertical image resolution Backlighting TFT widescreen display, LED backlighting 10.1 in Yes 16 777 216 1 280 pixel 800 pixel	display agonal lay colors (pixels) zontal image resolution ical image resolution ag BF backlighting (at 25 °C) klight dimmable	TFT widescreen display, LED backlighting 10.1 in Yes 16 777 216 1 280 pixel 800 pixel
Design of display Screen diagonal Color display Number of colors Resolution (pixels) Horizontal image resolution Vertical image resolution Backlighting TFT widescreen display, LED backlighting 10.1 in Yes 16 777 216 Resolution (pixels) 1 280 pixel 800 pixel	igonal lay colors (pixels) zontal image resolution ical image resolution ing BF backlighting (at 25 °C) klight dimmable	10.1 in Yes 16 777 216 1 280 pixel 800 pixel 50 000 h
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● Vertical image resolution 800 pixel Backlighting	ical image resolution ng BF backlighting (at 25 °C) klight dimmable	800 pixel 50 000 h
Backlighting	ng BF backlighting (at 25 °C) klight dimmable	50 000 h
	F backlighting (at 25 °C) klight dimmable	
	klight dimmable	
MTBF backlighting (at 25 °C) 50 000 h		Yes: 0-100 %
Backlight dimmable Yes; 0-100 %		
Control elements	ments	
Keyboard fonts	fonts	
Function keys	ction keys	
— Number of function keys 0	Number of function keys	0
— Number of function keys with LEDs 0	Number of function keys with LEDs	0
Keys with LED No	s with LED	No
Numeric keyboard Yes; Onscreen keyboard	neric keyboard	Yes; Onscreen keyboard
• alphanumeric keyboard Yes; Onscreen keyboard	anumeric keyboard	Yes; Onscreen keyboard
Touch operation	eration	
• Design as touch screen Yes	gn as touch screen	Yes
Design as multi-touch screen No	gn as multi-touch screen	No
Special operator controls	erator controls	
• Stop button (forced blocking) Yes	button (forced blocking)	Yes
 Emergency stop button (illuminated and forced blocking) 		Yes
Acknowledgement button (3-stage) Yes	nowledgement button (3-stage)	Yes
• Key-operated switch Yes	operated switch	Yes
• Illuminated pushbutton Yes	ninated pushbutton	Yes
Handwheel No	dwheel	No
Camera		
• integrated camera No	grated camera	No
Expansions for operator control of the process	·	
Direct keys (touch buttons as S7 input I/O)	ct keys (touch buttons as S7 input I/O)	0
Supply voltage	age	
Type of supply voltage DC	pply voltage	DC
Rated value (DC) 24 V	ie (DC)	24 V

	40.014
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	450 mA
Starting current inrush I²t	0.2 A ² ·s
Power	
Active power input, typ.	11 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
·	12 IVIDYTE
Type of output	N
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 wireless interfaces	0
Number of SD card slots	1
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
PROFIGURE	Yes
PROFIBUS	No
EtherNet/IP	Yes
MPI	No
Protocols (Ethernet)	
	V
• TCP/IP	Yes
• DHCP	Yes
DHCP SNMP	Yes Yes
DHCPSNMPDCP	Yes Yes Yes
DHCPSNMPDCPLLDP	Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics	Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP 	Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS 	Yes Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML 	Yes Yes Yes Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML 	Yes Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML 	Yes Yes Yes Yes Yes Yes Yes Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML 	Yes Yes Yes Yes Yes Yes Yes Yes Your state of the state o
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS 	Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS Active X 	Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS Active X JavaScript 	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS Active X JavaScript Java VM 	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS Active X JavaScript Java VM Further protocols 	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No
 DHCP SNMP DCP LLDP WEB characteristics HTTP HTTPS HTML XML CSS Active X JavaScript Java VM Further protocols MODBUS 	Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes No

Wireless communication • supported standards — Radio standard WLAN 802.11 — Bluetooth radio standard No Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable EMC Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class B, for use in residential areas • Limit class B, for use in residential areas No Degree and class of protection IP66 (all-round) Yes Standards, approvals, certificates CE mark Yes cULius Yes RCM (formerly C-TICK) KC approval No Suitable for safety functions Marine approval No Highest safety class achievable in safety mode • Performance level according to ISO 13849-1 • Sit. acc. to IEC 61508 Use in hazardous areas • ATEX Zone 2 • LECEX Zone 2 • LECEX Zone 2 • LECEX Zone 2 • LULus Class I Zone 1 • CULus Class I Zone 2, Division 2 • FM Class I Division 2 • FM Class I Division 2 No Marine approval • Germanischer Lloyd (GL) • American Bureau of Shipping (ABS) • Bureau Veritas (BNY) • Det Norske Veritas (DNY) • Loyds Register of Shipping (RRS) • Loyds Register of Shipping (RRS) • Loyds Register of Shipping (RRS)	
Radio standard WLAN 802.11 No Bluetooth radio standard No Interrupts/diagnostics/status information Diagnoses Diagnoses 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, certificatos CE mark Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes RCM approval No Suitable for safety functions Yes Marine approval No 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 2 No LICCEX Zone 2 N	
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Det Norske Veritas (DNV)Korean Register of Shipping (KRS)No	
Korean Register of Shipping (KRS) No	
+ Lioydo register of orlipping (Live)	
Nippon Kaiji Kyokai (Class NK) No	
Polski Rejestr Statkow (PRS) No	
Chinese Classification Society (CCS)	
Ambient conditions	
Free fall	
• Fall height, max. Ambient temperature during operation	
min. 0 °C	
Ambient temperature during storage/transportation ● min. -20 °C	
• max. 60 °C	
Relative humidity	
Operation, max. 90 %	
Operating systems	
pre-installed operating system	
Windows CE Yes	
configuration / header	
Message indicator Yes	
Alarm system (incl. buffer and acknowledgment) Yes	
Process value display (output) Yes	

Process value default (input) possible	Yes
	Yes
Recipe management Configuration software	160
STEP 7 Basic (TIA Portal)	No
STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Compact WinCC flexible Standard	No
WinCC flexible Standard WinCC flexible Advanced	No
WinCC Comfort (TIA Portal)	No Voc
WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal)	Yes
WinCC Advanced (TIA Portal) Wince D. Control (TIA Portal)	Yes
WinCC Professional (TIA Portal)	Yes
Languages	
Online languages	
Number of online/runtime languages	32
Project languages	
Languages per project	32
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
Multiproject	
Number of projects (internal)	0
Number of projects (external)	0
Message system	
Number of alarm classes	32
Bit messages	02
Number of bit messages	4 000
Analog messages	1 000
Analog messages Number of analog messages	200
Number of analog messages 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 characters per message Number of process values per message	8
Acknowledgment groups	Yes
Message indicator	Yes
Message Indicator Message buffer	, 60
Number of entries	1 024
Circulating buffer	Yes
— circulating burier — retentive	Yes
	Yes
— maintenance-free	res
Recipe management	200
Number of recipes	300
Data records per recipe This part data record	500
Entries per data record Cinc of internal region manager	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	100
Number of configurable images	500
Permanent window/default	Yes
Global image	Yes
Image selection by PLC	Yes
Image selection by 1 Eo Image number in the PLC	Yes
Image objects	103
Number of objects per image	400
Text fields	Yes
● I/O fields	Yes
Graphic I/O fields (graphics list)	Yes
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Yes
Symbolic I/O fields (text list) Data/time fields	
Date/time fields Switches	Yes
Switches	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects Complex images abjects	Yes
Complex image objects	00
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
1731	

— 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)	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
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	Yes
card	
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	307.5 mm
wider of the housing hold	JUT. J HIIII

Height of housing front	223.5 mm
Weights	
Weight (without packaging)	1.6 kg
Weight (with packaging)	1.7 kg

last modified: 3/4/2021 🖸