6AV2124-0GC01-0AX0

Data sheet



SIMATIC HMI TP700 Comfort, Comfort Panel, touch operation, 7" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, configurable from WinCC Comfort V11

General information	
Product type designation	TP700 Comfort
Display	
Design of display	TFT
Screen diagonal	7 in
Display width	152.4 mm
Display height	91.4 mm
Number of colors	16 777 216
Resolution (pixels)	
 Horizontal image resolution 	800 pixel
Vertical image resolution	480 pixel
Backlighting	
 MTBF backlighting (at 25 °C) 	80 000 h
Backlight dimmable	Yes; 0-100 %
Control elements	
Keyboard fonts	
Function keys	
 Number of function keys 	0
 Number of function keys with LEDs 	0
Keys with LED	No
System keys	No
Numeric keyboard	Yes; Onscreen keyboard
alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
Design as touch screen	Yes; Analog-resistive
Expansions for operator control of the process	
 DP direct LEDs (LEDs as S7 output I/O) 	
— F1Fx	0
 Direct keys (keys as S7 input I/O) 	
— F1Fx	0
Direct keys (touch buttons as S7 input I/O)	32
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC

Rated value (DC)	24 V
Rated value (DC)	19.2 V
permissible range, lower limit (DC)	
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	0.5 A
Starting current inrush I²t	0.5 A ² ·s
Power	
Active power input, typ.	12 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	
Buzzer	No
Speaker	Yes
Time of day	
Clock	
Hardware clock (real-time)	Yes
Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
	Yes
synchronizable Interfaces	res
Interfaces	40 (/ %1)
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	0; together with RS 485
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
• USB Mini B	1; 5-pole
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	
 Industrial Ethernet status LED 	2
 Number of ports of the integrated switch 	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes; As of WinCC V12
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
HTTP	Vac
	Yes
• HTTPS	Yes Yes
HTML	I E S
• XML	Yes

• CSS	Yes
 Active X 	Yes
 JavaScript 	Yes
Java VM	No
Redundancy mode	
Media redundancy	
— MRP	Yes; As of WinCC V12
Further protocols	
• CAN	No
MODBUS	Yes
Interrupts/diagnostics/status information	
Diagnoses	
Diagnostic information readable	Yes; S7 controller
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	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	V.
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
Standards, approvals, certificates	
CE mark	Yes
CULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Use in hazardous areas • ATEX Zone 2	Von
ATEX Zone 2 ATEX Zone 22	Yes Yes
IECEx Zone 2 IECEx Zone 2	Yes
• IECEX Zone 22	Yes
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes
• FM Class I Division 2	Yes
Marine approval	165
Germanischer Lloyd (GL)	Yes
American Bureau of Shipping (ABS)	Yes
Bureau Veritas (BV)	Yes
Det Norske Veritas (DNV)	Yes
Lloyds Register of Shipping (LRS)	Yes
Nippon Kaiji Kyokai (Class NK)	Yes
Polski Rejestr Statkow (PRS)	No
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0°C
— At maximum tilt angle, max.	40 °C
Operation (vertical installation, portrait format)	
— For vertical installation, min.	0°C
— For vertical installation, max.	40 °C
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0°C
 At maximum tilt angle, max. 	35 °C

Ambient temperature during standard (temperature)	
Ambient temperature during storage/transportation	20 °C
• min.	-20 °C
• max.	60 °C
Relative humidity	00.0/
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	v
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
Recipe management	Yes
Configuration software	Ma
STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal)	No No
 STEP 7 Professional (TIA Portal) WinCC flexible Compact 	No No
WinCC flexible Compact WinCC flexible Standard	No No
WinCC flexible Standard WinCC flexible Advanced	No
WINCC TIEXIDIE Advanced WinCC Basic (TIA Portal)	No
Wincc Basic (TA Portal) Wincc Comfort (TIA Portal)	Yes; from V11
Wincc Conflict (TIA Portal) WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Advanced (TIA Fortal) WinCC Professional (TIA Portal)	Yes; from V11
Languages	100, HOIII V I I
Online languages	
Number of online/runtime languages	32
Project languages	02
Languages per project	32
Functionality under WinCC (TIA Portal)	02
Libraries	Yes
	100
ENTINGUITA VITUALIA	
Applications/options • Web browser	Yes
Web browser Pocket Word	Yes Yes
Web browser Pocket Word	
Web browser	Yes
Web browserPocket WordPocket ExcelPDF Viewer	Yes Yes
Web browserPocket WordPocket Excel	Yes Yes Yes
 Web browser Pocket Word Pocket Excel PDF Viewer Media Player 	Yes Yes Yes Yes
 Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer 	Yes Yes Yes Yes Yes
 Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit 	Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts	Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner	Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled	Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled	Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system	Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes	Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages	Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages Analog messages — Number of analog messages	Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages Analog messages	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages Analog messages — Number of analog messages	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages — Analog messages — Number of analog messages S7 alarm number procedure	Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages Analog messages — Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK,	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages Number of bit messages Analog messages Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages Analog messages — Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages — Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Number of process values per message	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages — Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of process values per message Number of process values per message Acknowledgment groups	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web browser Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system Number of alarm classes Bit messages — Number of bit messages — Number of analog messages — Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Number of process values per message Acknowledgment groups Message indicator	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes

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
 Pop-up images 	Yes
Slide-in images	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
Buttons Craphic display	Yes
Graphic display	Yes
Coometric chiects	Yes Yes
Geometric objects Complex image objects	100
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	Yes
HTML browser	Yes
PDF display	Yes
• IP camera display	Yes
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	50
Number of archives per device	50
Number of entries per archive	20 000
Message archive	Yes
Process value archive And hidean and the de-	Yes
Archiving methods Sequential graphics	Von
— Sequential archive	Yes
— Short-term archive	Yes

 Memory location 	
— Memory card	Yes
— USB memory	Yes
— Ethernet	Yes
Data storage format	
— CSV	Yes
— TXT	Yes
— 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	165
Alarms	Yes
	Yes
Report (shift log) Hardeony	
Hardcopy Flectropic print to file	Yes
Electronic print to file	Yes; PDF, HTML
Character sets	
Keyboard fonts	
— US English	Yes
Transfer (upload/download)	
MPI/PROFIBUS DP	Yes
• USB	Yes
• Ethernet	Yes
using external storage medium	Yes
Process coupling	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• S7-300/400	Yes
• LOGO!	Yes
WinAC	Yes
SINUMERIK	Yes; with SINUMERIK option package
• SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
	Yes
Mitsubishi (FX)OMRON (FINS TCP)	No
OMRON (LINK/Multilink) Madison (Madhus TOP/IP)	Yes
Modicon (Modbus TCP/IP) Modicon (Modbus)	Yes
Modicon (Modbus)	Yes
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; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Hothoric Garnera	100

Mechanics/material	
Enclosure material (front)	
Plastic	No
 Aluminum 	Yes
Stainless steel	No
Dimensions	
Width of the housing front	214 mm
Height of housing front	158 mm
Mounting cutout, width	198 mm
Mounting cutout, height	142 mm
Overall depth	63 mm
Weights	
Weight (without packaging)	1.4 kg
Weight (with packaging)	1.6 kg

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