Data sheet

6AV2124-0GC01-0AX0



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

Relief value (DC)24 Vpermissible range, lower init (DC)19.2 Vpermissible range, upper limit (DC)28.8 VDipol content0.5 ASaving current (INC)0.5 ASaving current (IND)0.5 AProcessor (InD)0.5 ASaving current (IND)0.5 AProcessor (IND)0.5 AProcessor (IND)12 WProcessor (IND)YesFashYesRadinYesAdvances12 W MyetProcessor (IND)YesConstructNoFashNoSaving current (IND)NoSaving current (IND)Yes• Saving current (IND)Yes </th <th>permissible range, lower limit (DC) 19.2 V permissible range, lower limit (DC) 28.8 V Current consumption (rated value) 0.5 A Starting current tomush H 0.5 A*s Power </th> <th></th> <th></th>	permissible range, lower limit (DC) 19.2 V permissible range, lower limit (DC) 28.8 V Current consumption (rated value) 0.5 A Starting current tomush H 0.5 A*s Power		
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	• HTTP Yes	• HTTP	Yes
• HTML Yes	• HTTPS Yes	• HTTPS	Yes
	• HTML Yes	• HTML	Yes
• XML Yes	• XML Yes	• 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)	
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	Yes
ATEX Zone 22	Yes
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	
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
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Aarm system (ind. buffer and acknowledgment) Yes Process value diplay (output) Yes Process value diplay (output) Yes Recipe management Yes Configuration software Yes • STEP 7 Professional (TA Portal) No • WinCC Riskle Compact No • WinCC Riskle Similard No • WinCC Chrokeshoal (TIA Portal) Yes; from V11 • WinC Contert (TA Portal) Yes; from V11 • WinC Contert (TA Portal) Yes; from V11 • WinC Contert of Inferiontine languages 22 Prodet languages 22 • Number of online/numine languages 22 Prodet languages Yes • Applications/options Yes • WinD CO (TIA Portal) Yes • Applications/options Yes • Porket Excol Yes • Porket Excol Yes • Modia Player Yes • Number of alarm classes 32 • Porket Excol Yes • Number of alarm classes Yes <		
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Process value defaut (nou) possible Yes Recipe management Yes Configuration software No • STEP 7 Basic (TA Portal) No • WINCC flexible Compact No • WINCC flexible Standard No • WINCC flexible Standard No • WINCC flexible Advanced No • WINCC flexible Advanced No • WINCC Stable Advanced No • WINCC Compact (TA Portal) Yes; from V11 • WINCC Advanced (TIA Portal) Yes; from V11 • WINCC Conficient (TA Portal) Yes; from V11 • Policient (Manda Pauges) Yes; from		
Recipe management Yes Configuration software		
Configuration software • STEP 7 Basic (TIA Porta) No • STEP 7 Professional (TA Porta) No • WinCC flexible Compact No • WinCC flexible Compact No • WinCC flexible Standard No • WinCC flexible Advanced No • WinCC flexible Advanced No • WinCC flexible Advanced No • WinCC Control (TA Porta) Yes; from V11 • WinCC Control (TA Porta) Yes; from V11 • WinCC Advanced (TA Porta) Yes; from V11 • WinCC flexible Advanced (TA Porta) Yes; from V11 • WinCC flexible Advanced (TA Porta) Yes; from V11 • WinCC flexible Advanced (TA Porta) Yes; from V11 • WinCC flexible Advanced (TA Porta) Yes; from V11 • WinCC Config (TA Porta) Yes; from V11 • Under of online/runtime languages 2 • Forcet languages Yes • Longuages Yes • Under WinCC (TA Porta) Yes • Winde Vince (TA Porta) Yes • Winde Stations (TA Porta) Yes • Pocket Word		Yes
SEPF 7 Basic (TA Porta)No• STEP 7 Professional (TA Porta)No• WinCC Exclube CompactNo• WinCC Exclube ExclusionalNo• WinCC Exclube AdvancedNo• WinCC Exclube AdvancedNo• WinCC Exclusional (TA Porta)Yes; from V11• WinCC Confrot (TA Porta)Yes; from V11• WinCC Advanced (TA Porta)Yes; from V11• WinCC Professional (TA Porta)Yes; from V11• WinCC Professional (TA Porta)Yes; from V11• WinCC Exclusional (TA Porta)Yes; from V11• WinCC Basic (TA Porta)Yes; from V11• WinCC Professional (TA Porta)Yes; from V11• WinCC Basic (TA Porta)Yes; from V11• WinCC Basic (TA Porta)Yes• Portal Banages per projectYes• Applications/optionsYes• Web browserYes• Portek ExcelYes• Portek ExcelYes• Portek WordYes• Number of Nauda SeaverYes• Number of Isine SagesYes• Number of Isine S	Recipe management	Yes
• STEP 7 Professional (TIA Portal)No• WinCC Revibe CompactNo• WinCC Revibe AdvancedNo• WinCC Revibe AdvancedNo• WinCC Clevibe AdvancedNo• WinCC Combot (TIA Portal)Yes; from V11• WinCC Advanced (TIA Portal)Yes; from V11• Munder YinCC (TIA Portal)Yes• Auplications/optionsYes• Vind D trowserYes• PoCket WordYes• PoCket WordYes• PoCket WordYes• Number of SiMATIC WinCC Sing/TServerYes• SiMATIC WinCC AdvanceYes• SiMATIC WinCC AdvanceYes• SiMATIC WinCC AdvanceYes• Number of Islans ClassesYes• Number of Islans ClassesYes• Number of Si admine SocietiesYes• Number of Islans ClassesYes• Number	Configuration software	
•WinCC fexible CompactNo•WinCC fexible StandardNo•WinCC Exble Advanced (I Na Portal)No•WinCC Comfor (TA Portal)Yes; from V11•WinCC Advanced (I TA Portal)Yes; from V11•WinCC Advanced (I TA Portal)Yes; from V11•WinCC Professional (TIA Portal)Yes; from V11•WinCC I Portal32•Project languages32•Project languages per projed32•LibralesYes•Project LanguagesYes•Web browserYes•Web browserYes•Web browserYes•Web browserYes•Web browserYes•Web browserYes•Web browserYes•Nomber of Visual Basic ScriptsYes•Nomber of Visual Basic ScriptsYes•Number of Visual Basic ScriptsYes•Number of alarn classes32•Number of alarn classesYes•Number of blit messagesYes•Number of blit messagesYes <t< td=""><td> STEP 7 Basic (TIA Portal) </td><td>No</td></t<>	 STEP 7 Basic (TIA Portal) 	No
•WinCC fexible StandardNo•WinCC fexible AdvancedNo•WinCC Condort (TIA Portal)Yes; from V11•WinCC Porfessional (TIA Portal)Yes; from V11•WinCC International (TIA Portal)Yes; from V11•WinCC International (TIA Portal)Yes; from V11•WindC International (TIA Portal)Zenerational (TIA Portal)•WindC International (TIA Portal)Yes;•WindC (Xia Porta)Yes;•WindC (Xia Porta)Yes;•Pocket ExcelYes;•Pocket ExcelYes;•WindC (Xin CC AuditYes;•Winder Of Visual Basic ScriptsYes;•Winder of alarm classesYes;•Number of alarm classesYes;•Number of folt messagesYes;•Number of folt messagesYes;•Number of folt messagesYes;•Number of folt messagesYes;•Number of characters per message80•Number of characters per message80•Number of characters per message80	 STEP 7 Professional (TIA Portal) 	No
• WinCC faxible AdvancedNo• WinCC Dasic (TA Portal)Yes; forn V11• WinCC Advanced (TIA Portal)Yes; forn V11• WinCC Advanced (TIA Portal)Yes; forn V11• WinCC Professional (TIA Portal)Yes; forn V11• Ununuer of online/tuntime languages32• Damine languages32• LanguagesYes• Languages per project32• Languages per projectYes• LanguagesYes• Under Winder	WinCC flexible Compact	No
• WinCC Basic (TI A Porta)No• WinCC Comfort (TI A Porta)Yes; from V11• WinCC Professional (TI A Porta)Yes; from V11• WinCC Professional (TI A Porta)Yes; from V11• Number of online/nutime languages32• Number of online/nutime languages32• Number of online/nutime languages32• Number of online/nutime languagesYes• Number of Orline (TI A Porta)Yes• Number of Visual Basic ScriptsYes• PoOF ViewerYes• SIMATIC VinCC Sm@rtiServerYes• SIMATIC VinCC Sm@rtiServerYes• Number of Visual Basic ScriptsYes• Number of alarm classes32• Bit messagesYes• Number of alarm classes32• Bit messagesYes• Number of alarm classes32• SiMATIC VinCC AuthYes• Number of alarm classes32• Bit messagesYes• Number of alarm classes32• SiMATIC VinCC AuthYes• SiMATIC VinCC AuthYes• Number of alarm classes32• Si Mattir C VinCC AuthYes• Si Mattir C VinCC AuthYes• Si Mattir C VinCC AuthYes• Number of alarm classes200• Si Stein m	WinCC flexible Standard	No
• WinCC Confort (TIA Portal)Yes; from V11• WinCC Advanced (TIA Portal)Yes; from V11• WinCC Professional (TIA Portal)Yes; from V11• Languages32• Number of online/nutime languages32• Number of online/nutime languages32• Languages32• Languages per project32• Languages per project32• Languages per project32• Number of Number Of Detail)Use (TIA Portal)• LibrariesYes• Applications/optionsYes• Web browserYes• Pooket ExcelYes• Pooket ExcelYes• Pooket ExcelYes• SIMATIC WinCC AuditYes• SIMATIC WinCC AuditYes• Number of Visual Basic ScriptsYes• Number of Jalam classes32• Sim metrolYes• Number of Jalam classes32• Sim metrolYes• Number of alarm classes32• Sim mesages MIMYes• Number of analog messagesYes• Number of analog messagesYes• Sinder of characters per message80• Number of process values per message8• Number of process values per message	WinCC flexible Advanced	No
• WinCC Advanced (TIA Portal) Yes; from V11 • WinCC Professional (TIA Portal) Yes; from V11 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 • Pooket Word Yes • Pooket Excel Yes • Pooket Excel Yes • Pooket Excel Yes • SIMATIC WinCC Audit Yes • SIMATIC WinCC Audit Yes • Task planner Yes • time-controlled Yes • Number of Ist messages Yes • Number of Ist messages Yes • Number of Ist messages Yes • Number of chirm essages Yes • Number of nanalog messages Yes • Number of chirm essages Yes • Number of chirm essages Yes • SiMATIC Winc C Stripts Yes • Number of Ist messages Yes <td>WinCC Basic (TIA Portal)</td> <td>No</td>	WinCC Basic (TIA Portal)	No
• WinCC Professional (TIA Portal) Yes; from V11 Languages 32 • Number of online/runtime languages 32 Project languages 32 • Number of online/runtime languages 32 Project languages 32 • Lunguages per project 32 Functionality under WinCC (TIA Portal) 1 Libraries Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • SIMATIC WinCC Cangertserver Yes • SIMATIC WinCC Cangertserver Yes • SIMATIC WinCC Cangertserver Yes • Number of Visual Basic Scripts Yes • Number of Visual Basic Scripts Yes • Number of alarm classes 32 • Bit messages Yes • Number of alarm classes 32 • Bit messages Yes • Number of analog messages Yes • Number of analog messages Yes • Nu	WinCC Comfort (TIA Portal)	Yes; from V11
Languages Online languages • Number of online/runtime languages • Languages • Languages • Languages • Languages per project 32 Functionality under WinCC (TIA Portal) Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Pocket Excel Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Adult Yes • SIMATIC WinCC Adult Yes • Task planner * • time-controlled Yes • time-controlled Yes • Number of alarn classes 32 • Bit messages Yes • Number of alarn classes 22 • Bit messages Yes • Number of alarn classes 200 • System nessages HMI Yes • System nessages HMI Yes • System of characters per message 8 • Number of process va	WinCC Advanced (TIA Portal)	Yes; from V11
Online languages 32 Project languages 32 Project languages per project 32 Functionality under WinCC (TIA Portal) 32 Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes • Task planner Yes • time-controlled Yes • Number of slam classes 32 • Number of bit messages Yes • Number of alang classes 32 • Bit messages HMI Yes • Number of alang gmessages Yes • Number of of characters per message 80 • System event, more (SIMATIC ST, SINUMERIK, SIMOTION,) Yes • Number of characters per message 8	WinCC Professional (TIA Portal)	Yes; from V11
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• Languages per project 32 Functionality under WinCC (TIA Portal) Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Decket Excel Yes • Media Player Yes • Media Player Yes • SIMATIC WinCC Audit Yes • SIMATIC WinCC Audit Yes • Number of Visual Basic Scripts Yes Task planner Yes • time-controlled Yes • ask-controlled Yes • Bumber of alarm classes 32 • Bit messages Yes - Number of bit messages Yes - Number of analog messages Yes - Number of analog messages Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of characters per message 80 • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes	· · ·	
Functionality under WinCC (TIA Portal) Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner Yes • ime-controlled Yes • task-controlled Yes • Number of alarn classes 32 • Bit messages Yes — Number of bit messages Yes — Number of analog messages Yes — Number of analog messages 200 • S7 alarn number procedure Yes • System messages HMI Yes • System mevent, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of proces values per message 80 • Number of characters per message 8 • Acknowledgment groups		32
Libraries Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes task-controlled Yes • ime-controlled Yes • lask-controlled Yes • Number of alarm classes 32 • Bit messages Yes - Number of bit messages Yes - Number of analog messages 200 • S7 alarm number procedure Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION) Yes • Number of characters per message 80 • Number of process values per message 8 • Number of process values per message 8 <t< td=""><td></td><td></td></t<>		
Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • PDF Viewer Yes • Media Player Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner Yes • time-controlled Yes • task-controlled Yes Message system Yes • Number of bit messages Yes — Number of bit messages Yes — Number of bit messages Yes — Number of analog messages 200 • S7 alarn number procedure Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of otharacters per message 80 • Number of process values per message 80 • Number of process values per message 8 • Acknowledgment groups Yes		Yes
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• PDF ViewerYes• Media PlayerYes• SIMATIC WinCC Sm@rtServerYes• SIMATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask plannerYes• time-controlledYes• task-controlledYes• task-controlledYes• Number of alarm classes32• Bit messagesYes• Number of canalog messagesYes• System message HMIYes• System message HMIYes• System message HMIYes• System ovent, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message80• Acknowledgment groupsYes• Message indicatorYes• Message		
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• task-controlledYesMessage system32• Number of alarn classes32• Bit messagesYes- Number of bit messages4000• Analog messagesYes- Number of analog messages200• Number of analog messages200• S7 alarn number procedureYes• System messages HMIYes• System nessages HMIYes• System ovent, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Recipe managementYes	Number of Visual Basic Scripts	Yes
Message system • Number of alarm classes 32 • Bit messages Yes - Number of bit messages 4 000 • Analog messages Yes - Number of analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System vent, 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	Number of Visual Basic Scripts Task planner	Yes Yes
Number of alarm classes32Bit messagesYes- Number of bit messages4 000• Analog messagesYes- Number of analog messages200• S7 alarm number procedureYes• System messages HMIYes• System vent, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYesRecipe managementYes	Number of Visual Basic Scripts Task planner • time-controlled	Yes Yes
• Bit messagesYes- Number of bit messages4 000• Analog messagesYes- Number of analog messages200• S7 alarn number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message80• Acknowledgment groupsYes• Message indicatorYes• Recipe managementYes	Number of Visual Basic Scripts Task planner • time-controlled • task-controlled	Yes Yes
- Number of bit messages4 000- Number of bit messagesYes- Number of analog messages200- Number of analog messagesYes- S7 alarm number procedureYes- System messages HMIYes- System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes- Number of characters per message80- Number of process values per message8- Acknowledgment groupsYes- Message indicatorYes- Recipe managementYes	Number of Visual Basic Scripts Task planner • time-controlled • task-controlled Message system	Yes Yes Yes
• Analog messagesYes- Number of analog messages200• S7 alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYesRecipe managementYes	Number of Visual Basic Scripts Task planner • time-controlled • task-controlled Message system • Number of alarm classes	Yes Yes Yes 32
- 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	Number of Visual Basic Scripts Task planner • time-controlled • task-controlled Message system • Number of alarm classes • Bit messages	Yes Yes Yes Yes Yes
• S7 alarm number procedureYes• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYesRecipe managementYes	Number of Visual Basic Scripts Task planner • time-controlled • task-controlled Message system • Number of alarm classes • Bit messages — Number of bit messages	Yes Yes Yes Yes 32 Yes 4 000
• System messages HMIYes• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYesRecipe managementYes	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 32 Yes 4 000 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 Recipe management Yes	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 32 Yes 4 000 Yes 200
SIMOTION,) 80 • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes Recipe management Yes	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 Yes Yes Yes Yes 4 000 Yes 200 Yes
Number of process values per message Acknowledgment groups Message indicator Recipe management	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	Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes
Acknowledgment groups Yes Message indicator Yes Recipe management	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 32 Yes 4 000 Yes 200 Yes 200 Yes
Message indicator Yes Recipe management	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 32 Yes 4 000 Yes 200 Yes 200 Yes Yes Yes
Recipe management	Number of Visual Basic Scripts Task planner	Yes Yes Yes Yes 32 Yes 4000 Yes 200 Yes 200 Yes Yes Yes 80
	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 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 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 80 80
Number of recipes	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 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	Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes Yes Yes Yes Yes
	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 • 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 32 Yes 4 000 Yes 200 Yes 200 Yes Yes Yes Yes Yes
Data records per recipe 500	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 • 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 4 000 Yes 200 Yes 200 Yes Yes Yes Yes Yes Yes

a Entrino par data record	1 000
Entries per data record	1 000 2 Mbyte
Size of internal recipe memory Becipe memory expandable	2 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	2 048
Number of variables per device 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	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	Yes
HTML browser	Yes
PDF display	Yes
IP camera display	Yes
Bar graphs Sliders	Yes
Sliders Painter instrumente	Yes
Pointer instruments Analog/digital clock	Yes
Analog/digital clock Lists	
Number of text lists per project	500
Number of retries per text list	500
Number of graphics lists per project	500
Number of graphics list per project	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
 — Sequential archive — Short-term archive 	Yes 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	
• Alarms	Yes
Report (shift log)	Yes
Hardcopy	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
• S7-200	Yes
• LOGO!	Yes
• WinAC	Yes
SINUMERIK	Yes; with SINUMERIK option package
SINOMERIK SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
• OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	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

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

4/10/2024 🖸

Data sheet

6AV2124-0JC01-0AX0

SIMATIC HMI TP900 Comfort, Comfort Panel, touch operation, 9" 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	TP900 Comfort
Display	
Design of display	TFT
Screen diagonal	9 in
Display width	195 mm
Display height	117 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) 	40
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

	04.14
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)	0.75 A
Starting current inrush I ² t	0.5 A²·s
Power	
Active power input, typ.	18 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
synchronizable	Yes
Interfaces	
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	Yes
• HTTPS	Yes
• HTML	Yes
• 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)	
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	Yes
ATEX Zone 22	Yes
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	
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
, te maximum the angle, maximum	

Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	30 %, no condensation
	Nie
proprietary	No
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
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; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
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	Yes
Pocket Excel	Yes
	Vec
PDF Viewer Media Player	Yes
Media Player	Yes
Media PlayerSIMATIC WinCC Sm@rtServer	Yes Yes
 Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit 	Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts	Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner	Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled	Yes Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled	Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system	Yes Yes Yes Yes Yes
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 Yes Yes Yes Yes Yes 32
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 Yes Yes Yes Yes Yes Yes
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	Yes Yes Yes Yes Yes Yes Yes 4 000
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 32 Yes 4 000 Yes
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 32 Yes 4 000 Yes 200
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 Yes Yes Yes Yes Yes Yes Yes 4 000 Yes 200 Yes
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	Yes
 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 event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	Yes Yes Yes Yes Yes Yes Yes Yes 4 000 Yes 200 Yes
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 S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK,	Yes
 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 event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes Yes Yes
 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 System number procedure System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes Yes 80
 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 System number procedure 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 32 Yes 4 000 Yes 200 Yes
 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 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 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 80 80 8 8
 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 S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of process values per message Acknowledgment groups Message indicator 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 80 80 8 8
 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 System number procedure System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Acknowledgment groups Acknowledgment groups Message indicator 	Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 200 Yes 200 Yes Yes Yes Yes Yes

a Entrino par data record	1 000
Entries per data record	1 000 2 Mbyte
Size of internal recipe memory Becipe memory expandable	2 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	2 048
Number of variables per device 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	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	Yes
HTML browser	Yes
PDF display	Yes
IP camera display	Yes
Bar graphs Sliders	Yes
Sliders Painter instrumente	Yes
Pointer instruments Analog/digital clock	Yes
Analog/digital clock Lists	
Number of text lists per project	500
Number of retries per text list	500
Number of graphics lists per project	500
Number of graphics list per project	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
 — Sequential archive — Short-term archive 	Yes 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	
• Alarms	Yes
Report (shift log)	Yes
• Hardcopy	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	103
• S7-1200	Yes
• S7-1200	Yes
• S7-200	Yes
• \$7-200 • \$7-300/400	Yes
• 57-500/400 • LOGO!	Yes
	Yes
	Yes; with SINUMERIK option package
SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	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

Mechanics/material	
Enclosure material (front)	
Plastic	No
Aluminum	Yes
 Stainless steel 	No
Dimensions	
Width of the housing front	274 mm
Height of housing front	190 mm
Mounting cutout, width	251 mm
Mounting cutout, height	166 mm
Overall depth	62.7 mm
Weights	
Weight (without packaging)	1.9 kg
Weight (with packaging)	2.6 kg

4/10/2024 🖸

Data sheet

6AV2124-0MC01-0AX0



SIMATIC HMI TP1200 Comfort, Comfort Panel, touch operation, 12" 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	TP1200 Comfort	
Display		
Design of display	TFT	
Screen diagonal	12.1 in	
Display width	261.1 mm	
Display height	163.2 mm	
Number of colors	16 777 216	
Resolution (pixels)		
 Horizontal image resolution 	1 280 pixel	
 Vertical image resolution 	800 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) 	40	
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	

	2414
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)	0.85 A
Starting current inrush I ² t	0.5 A ² ·s
Power	
Active power input, typ.	20 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
synchronizable	Yes
Interfaces	
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	Yes
• HTTPS	Yes
• HTML	Yes
• 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)	
• 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	Yes
ATEX Zone 22	Yes
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	
Germanischer Lloyd (GL)	Yes; As of product version: 10
American Bureau of Shipping (ABS)	Yes; As of product version: 10
Bureau Veritas (BV)	Yes; As of product version: 10
Det Norske Veritas (DNV)	Yes; As of product version: 10
Lloyds Register of Shipping (LRS)	Yes; As of product version: 10
Nippon Kaiji Kyokai (Class NK)	Yes; As of product version: 10
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
- A maximum un angie, max.	

Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	30 %, no condensation
	Nie
proprietary	No
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
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; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
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	Yes
Pocket Excel	Yes
	Vec
PDF Viewer Media Player	Yes
Media Player	Yes
Media PlayerSIMATIC WinCC Sm@rtServer	Yes Yes
 Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit 	Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts	Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner	Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled	Yes Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled	Yes Yes Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts Task planner time-controlled task-controlled Message system	Yes Yes Yes Yes Yes
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 Yes Yes Yes Yes Yes 32
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 Yes Yes Yes Yes Yes Yes
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	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000
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 32 Yes 4 000 Yes
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 32 Yes 4 000 Yes 200
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 Yes Yes Yes Yes Yes Yes Yes 4 000 Yes 200 Yes
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	Yes
 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 event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	Yes Yes Yes Yes Yes Yes Yes Yes 4 000 Yes 200 Yes
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 S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK,	Yes
 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 event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes Yes Yes
 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 System number procedure System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes Yes 80
 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 System number procedure 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 32 Yes 4 000 Yes 200 Yes
 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 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 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 80 80 8 8
 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 S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of process values per message Acknowledgment groups Message indicator 	Yes Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 80 80 8 8
 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 System number procedure System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Acknowledgment groups Acknowledgment groups Message indicator 	Yes Yes Yes Yes Yes Yes 32 Yes 4 000 Yes 200 Yes 200 Yes 200 Yes 200 Yes 200 Yes Yes Yes Yes Yes

a Entrino par data record	1 000
Entries per data record	1 000 2 Mbyte
Size of internal recipe memory Becipe memory expandable	2 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	2 048
Number of variables per device 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	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	Yes
HTML browser	Yes
PDF display	Yes
IP camera display	Yes
Bar graphs Sliders	Yes
Sliders Painter instrumente	Yes
Pointer instruments Analog/digital clock	Yes
Analog/digital clock Lists	
Number of text lists per project	500
Number of retries per text list	500
Number of graphics lists per project	500
Number of graphics list per project	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
 — Sequential archive — Short-term archive 	Yes 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	
• Alarms	Yes
Report (shift log)	Yes
• Hardcopy	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	103
• S7-1200	Yes
• S7-1200	Yes
• S7-200	Yes
• \$7-200 • \$7-300/400	Yes
• 57-500/400 • LOGO!	Yes
	Yes
	Yes; with SINUMERIK option package
SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	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

Mechanics/material		
Enclosure material (front)		
Plastic	No	
Aluminum	Yes	
 Stainless steel 	No	
Dimensions		
Width of the housing front	330 mm	
Height of housing front	241 mm	
Mounting cutout, width	310 mm	
Mounting cutout, height	221 mm	
Overall depth	64 mm	
Weights		
Weight (without packaging)	2.8 kg	
Weight (with packaging)	3.5 kg	

4/10/2024 🖸

Data sheet

6AV2124-0QC02-0AX2



SIMATIC HMI TP1500 Comfort, Comfort Panel, touch operation, 15" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable as of WinCC Comfort V14 SP1 with HSP, ambient temperature up to 45 $^\circ$ C

Product type designation TP1500 Comfort Display TFT Design of display TFT Screen diagonal 15.4 in Display width 331.2 mm		
Design of display TFT Screen diagonal 15.4 in		
Screen diagonal 15.4 in		
Display width 331.2 mm		
Display height 207 mm		
Number of colors 16 777 216		
Resolution (pixels)		
Horizontal image resolution 1 280 pixel		
Vertical image resolution 800 pixel		
Backlighting		
MTBF backlighting (at 25 °C) 80 000 h		
Backlight dimmable Yes; LED, dimma	able	
Control elements		
Keyboard fonts		
Function keys		
— Number of function keys 0		
Keys with LED No		
System keys No		
Numeric keyboard Yes; Onscreen k	eyboard	
alphanumeric keyboard Yes; Onscreen k	eyboard	
Touch operation		
Design as touch screen Yes		
Expansions for operator control of the process		
• Direct keys (touch buttons as S7 input I/O) 40		
Installation type/mounting		
Mounting position vertical		
Mounting in portrait format possible Yes		
Mounting in landscape format possible Yes		
maximum permissible angle of inclination without external 35° ventilation		
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) 1.7 A		
Starting current inrush I ² t 0.5 A ² ·s		

Power	
Active power input, typ.	41 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	24 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
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
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
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	3
Number of ports of the integrated switch	2
Protocols	No.
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT PROFIBUS	Yes; WinCC V14 SP1 HSP or higher Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• CSS	Yes
Active X	Yes
JavaScript	Yes
• Java VM	No
Redundancy mode	
Media redundancy	
— MRP	Yes

Further protocols	Na
• 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)	
 Enclosure Type 4 at the front 	Yes
Enclosure Type 4x at the front	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes; In application process
FM approval	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
IECEx Zone 2	Yes
IECEx Zone 22	Yes
cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	Yes; For inscription on device rating plate
cULus Class II Division 2	No
FM Class I Division 2	Yes
 FM Class II Division 2 	No
Marine approval	
Germanischer Lloyd (GL)	Yes; Available soon
 American Bureau of Shipping (ABS) 	Yes; Available soon
 Bureau Veritas (BV) 	Yes
 Det Norske Veritas (DNV) 	Yes; Available soon
 Korean Register of Shipping (KRS) 	Yes; Available soon
 Lloyds Register of Shipping (LRS) 	Yes; Available soon
 Nippon Kaiji Kyokai (Class NK) 	Yes; Available soon
 Polski Rejestr Statkow (PRS) 	No
Chinese Classification Society (CCS)	Yes; Available soon
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.	45 °C
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.	40 °C
Ambient temperature during storage/transportation	

e min	-20 °C
• min.	-20 °C
• max.	00 °C
Relative humidity	
Operation, max. Operating systems	90 %; no condensation
	No
proprietary	NO
pre-installed operating system Windows CE	Yes; Windows Embedded Compact 2013
configuration / header	res, windows Embedded Compact 2015
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
WinCo flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
• time-controlled	Yes
task-controlled	Yes
Message system	
Number of alarm classes	32
Number of alarm classesBit messages	
 Number of alarm classes Bit messages — Number of bit messages 	32 6 000
 Number of alarm classes Bit messages Number of bit messages Analog messages 	6 000
 Number of alarm classes Bit messages Number of bit messages Analog messages Mumber of analog messages 	6 000 200
 Number of alarm classes Bit messages Number of bit messages Analog messages Number of analog messages S7 alarm number procedure 	6 000 200 Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages S7 alarm number procedure System messages HMI 	6 000 200 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Number of analog messages S7 alarm number procedure 	6 000 200 Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, 	6 000 200 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages Number of analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) 	6 000 200 Yes Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message 	6 000 200 Yes Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes Yes 80 8
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes 80 8 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator Recipe management Number of recipes 	6 000 200 Yes Yes Yes 80 8 8 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes 80 8 Yes Yes

Size of internal regine memory	4 Mbyte
 Size of internal recipe memory Recipe memory expandable 	4 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	4 096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
	Yes
Arrays Images	
Number of configurable images	750
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	600
• 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	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	40
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	
Number of archives per device	50
Number of entries per archive	50 000
Message archive	Yes
Process value archive	Yes
Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	

- Memory call Yes - Elbernet Yes - Elbernet Yes - CSV Yes - TXT Yes - RDB Yes Securit Yes - RDB Yes Securit Sol • Number of users probe 30 • Number of users Sol • Number of users Sol • Savator of users Sol • Savator opping intering intering Yes • Savator opping intering intering Yes • Savator opping intering intering Yes • Savator of ons Yes - User Inglain Yes • Savator of ons Yes </th <th></th> <th></th>		
- ElementYes• OSVYes- CSVYes- ROBYesSecurity60• Number of user groups50• Number of user groups70• Situation of user groups70<	— Memory card	Yes
Data strage format- TXTYes- RDBYes- RDBSolutionSecuritySolution• Number of user groupsSolution• Number of user groupsSolution• Carrier of user groupsSolution• Carrier of user groupsSolution• Carrier of user groupsYes• Carrier of user groupsYes• Carrier of user groupsYes• Carrier of user groupsYes• Carrier of the groupsYes• Carrier of the groupsYes• Report groupsYes• SolutionsYes• Solutions <td></td> <td></td>		
−CSV Yes −DT Yes Security 50 •Number of user groups Yes •		Yes
−PXT Yes ■RDB Yes ■Aumber of user groups B0 ■Asserved exportingent Yes ■Aranse exportingent Yes ■Aranse export groups Yes ■Aranse export groups Yes ■Aranse provide groups Yes ■Aranse full fills [b) Yes ■Aranse full fills [b) Yes ■ Electronic print to file Yes ■ Use English Yes ■ APP (FILLS DE PDP Yes ■ Sing settral storage medium Yes ■ APP (FILLS DE PDP Yes ■ Sing settral storage medium Yes ■ Sing Sing Sing Sing Sing Sing Sing Sing	-	
→RDB Yes Security 50 • Number of user groups 50 • Number of user groups 50 • Number of users 50 • Number of users 50 • Stassword export/inport Yes • Stassword export/inport Yes • Stassword export/inport Yes • Alarma Yes • Electronic print to file Yes • Electronic print to file Yes • Alarma Yes • Electronic print to file Yes • Electronic print to file Yes • Stassword regroups Yes • Stas		
Security 90 • Number of user rights 52 • Number of user rights 52 • Password countingont Yes • Password countingont Yes • Number of user rights 52 • Cogning Brough prefet Yes • Alarms Yes • Report (aft fog) Yes • Backstowed forts		
• Number of user groups50• Number of user rights32• Number of users50• Reserved exportingnotYes• Simmer of users50• Simmer of users50• Simmer of users50• Simmer of usersYes• Simmer of usersYes• Report (MR log)Yes• Report (MR log)Yes• Report (MR log)Yes• BardcopyYes• BardcopyYes• BardcopyYes• BardcopyYes• BardcopyYes• BardcopyYes• BardcopyYes• Soloard forts		Yes
Number of users32Number of users60Password oxport/mportYesPassword oxport/mportYesPast	•	
9090• Password exponimportYes• SIMATC (LoginYes• Report (shift log)Yes• AlarmsYes• AlarmsYes• AlarmsYes• Report (shift log)Yes• Electronic print to fileYes, PDF, HTML• Character sets-• Loging for forts-• U S EnglishYes• AlarmsYes• May PROPTRUS DPYes• USSYes• Sing external storage mediumYes• Sing external storageYes• Sing external storageYes•		
+ Passend export/spotYesIdentified to point the fieldYes- AlarmsYes- Report (shift top)Yes- HardcopyYes- Below (shift top)Yes- Str200Yes- Str200Yes<	-	32
SIMATIC LogonYesLoging through printingYesAlumisYesReport (shift log)YesHandcoopYesElectronic print to fileYes- Electronic print to fileYes- LS EnglishYes- LS EnglishYes- LS EnglishYes- US EnglishYes- ST-7200Yes- ST-7200Yes- ST-7200Yes- ST-7200Yes- US EnglishYes- ST-7200Yes- ST-7200Yes- USOCIYes- ST-7200Yes- USOCIYes- USO	Number of users	50
Logical through printer • Alarma Yes • Report (shift log) Yes • Report (shift log) Yes • Bedectionic print to file Yes (PF, HTML) Character sets • • Keybracer torls - - US English Yes • Miller FORLBUS DP Yes • USB Yes • USB Yes • Using external storage medium Yes • S7:1200 Yes • S7:1500 Yes • S7:700/000 Yes • S8:NUMERIK Yes; with SINUMERIK option package • SINUMERIK Yes; with SINUMERIK option package • SINUMERIK Yes; with SINUMERIK option package • SINUMERIK Yes; with SINUMERIK option package • Sinumetton Yes • Meideon (Modobusin (KC TOPIP)		Yes
· AlarmsYes· Report (shifting)Yes· Bectronic print to fileYes· Electronic print to fileYes· Keyboard fonts US EnglishYes· Farssfer (updaceddownload)Yes· - US EnglishYes· MUPROFIBUS DPYes· USBYes· USBYes· EnemelYes· SAT 200Yes· UCGOIYes· UCGOIYes· ULGOIYes· ULMERIKYes· SIMUMERIKYes· SIMUMERIKYes· SIMUMERIKYes· Nan Bradey (Ethenbet/P)Yes· Allen Bradey (Ethenbet/P) <td></td> <td>Yes</td>		Yes
• Rupot (shift log)Yes• HardcopyYes• Electroic pint to fileYes• Electroic pint to fileYes• Keyb Zoor fontsYes• US EnglishYes• Mult PROFILIUS DPYes• USBYes• S7-1500Yes• S7-1500Yes• S7-200Yes• S100TIONYes• WIACYes• Misubian (KY)Yes• Allen Bradley (UTr)Yes• Allen Bradley (UTr)Yes• Misubian (KX)Yes• Malubian (KX)Yes• Modicon (Modous)Yes• OPE UA ServerYes• OPE UA ServerYes• Backup/Restore manuallyYes• Sharti CHM StoffwerdYes• Sharti CHM StoffwerdYes• Sharti CHM Stof		
Hardcopy Yes Electronic print for file Yes, PDF, HTML Character stats		
Electron print to file Yes; PDF, HTML Character sets Function US English Yes		
Character sets Keyboard fonts — US English Yes Transfer (uploaddownicad) Yes • MPI/PROFIBUS DP Yes • UBB Yes • Ethernet Yes • using external storage medium Yes Process coupling Yes • S7-1500 Yes • S7-1500 Yes • S7-200 Yes • S7-300400 Yes • S7-300400 Yes • UNAC Yes • ST-300 Yes • SINUMERIK Yes, with SINUMERIK option package • UbCOCI Yes • Mink Didahi (FX) Yes • Allen Bradley (DFI) Yes • Allen Bradley (DFI) Yes • Misubihi (MC TOP/IP) Yes • Misubihi (FX) Yes • OMRCON (LINK'Multilink) Yes • OMRCON (LINK'Multilink) Yes • OMRCON (Modous) Yes • OMRCON (Modous) Yes • DORCON (Modous) Yes • OPC		
Keyboard fonts US English Ves Us English Ves Us English Ves Ves		Yes; PDF, HTML
— US English Yes Transfer (upioad/download) • • MPUPROFIBUS DP Yes • USB Yes • USB Yes • Using external storage medium Yes • S7-1200 Yes • S7-1200 Yes • S7-1200 Yes • S7-200 Yes • S7-300400 Yes • UGCO1 Yes • UNAC Yes • UNAC Yes • ST-300400 Yes • UGCO1 Yes • UNAC Yes • UNAC Yes • SINUMERIK Yes • SINUMERIK Yes • Miles udshi (KC TOP/IP) Yes • Miles udshi (KT) Yes • Miles udshi (KT) Yes • OMKON (LINK/Mutilink) Yes • OMCON (Moduus TCP/IP) Yes • Odolcon (Moduus) Yes • OPC UA Cleint Yes • OPC UA Cleint Yes • OPC UA Cleint Y		
Transfer (upload/download) • MPUPROFIBUS DP Yes • USB Yes • Using external storage medium Yes • Process coupling Yes • S7-1200 Yes • S7-1200 Yes • S7-7200 Yes • S7-200 Yes • S7-200 Yes • S7-200 Yes • S7-300400 Yes • UninAC Yes • SNUMERIK Yes (with SINUMERIK option package) • SINOTION Yes • Allen Bradley (EtherNet/IP) Yes • Allen Bradley (EtherNet/IP) Yes • Mitsubishi (KC TCPIP) Yes • Mitsubishi (KC TCPIP) Yes • OMRON (LINK/Mutlink) Yes • OMRON (LINK/Mutlink) Yes • OMGON (Moduus) Yes • OPC UA Server Yes • Backup/Restore manually Yes • Device workhower Yes • Device workhower Yes • Device workhower Yes • Simulation Yes (Up to 128 MB • Simulation		
• MPI/PROFIBUS DP Yes • USB Yes • UB external storage medium Yes Process coupling Yes • S7-15200 Yes • S7-15200 Yes • S7-7200 Yes • ST-7200 Yes • SINUMERIK Yes • WinAC Yes • SINUMERIK Yes • Allen Bradley (ChritherWiP) Yes • Allen Bradley (ChritherWiP) Yes • Mitsubish (MC TCP/IP) Yes • Mitsubish (K2) Yes • OMRON (FINS TCP) No • OMRON (INK/Autilink) Yes • OPC UA Client Yes • OPC UA Client Yes • Backup/Restore automatically Yes • Backup/Restore manually Yes • Backup/Restore automatically Yes • Backup/Restore automatically Yes • Backup/Restore automatically Yes		Yes
• USBYes• EthernetYes• using external storage mediumYesProcess couplingYes• S7-1200Yes• S7-7500Yes• S7-7500Yes• S7-7500Yes• S7-200Yes• S7-200Yes• COCOIYes• LOCOIYes• LOCOIYes• SINUMERIKYes with SINUMERIK option package• SINOTONYes• SINOTONYes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (DF1)Yes• Mitsubish (KC TCP/IP)Yes• Mitsubish (KC TCP/IP)Yes• OMRON (FINS TCP)No• OMRON (FINS TCP)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus)Yes• OPC UA ServerYes• Service tools/configuration aidsYes• SimulationYes• Device switchoverYes• PrinterYes• SIMATIC HMI Memory card: Multi Media CardYes, Up to 128 MBSIMATIC HMI Memory card: Compact Flash CardNoSIMATIC HMI Memory card: Secure Digital memory cardYes; Up to 128 MBSIMATIC HMI Memory card: Secure Digital memory cardYes; Up to 16 GBSIMATIC HMI USB stickYes;		
• Ethernet Yes • using external storage medium Yes Process coupling • • \$7-1200 Yes • \$7-1200 Yes • \$7-200 Yes • \$7-300400 Yes • \$7-300400 Yes • LOGOI Yes • UOGOI Yes • WinAC Yes • SINUMERIK Yes • SINUMERIK Yes • SINUMERIK Yes • Allen Bradley (DF1) Yes • Allen Bradley (DF1) Yes • Mitsubishi (MC TCP/IP) Yes • Mitsubishi (MC TCP/IP) Yes • Mitsubishi (MC TCP/IP) Yes • Modicon (Modbus) TCP/P) Yes • OPC UA Server Yes Service tools/configuration aids - • Deckup/Restore anuality Yes • Backup/Restore anuality Yes • Device switchover Yes Printer Yes Simulation Allo Yes Simulation HM memory card: Secure Digital memory card Yes; Up to 128 MB Simulation HM M memory card:		
• using external storage medium Yes Process coupling		
Process coupling Yes • \$7.1200 Yes • \$7.1500 Yes • \$7.200 Yes • \$7.200 Yes • \$7.300/400 Yes • \$1.000 Yes • \$1.0000 Yes • \$1.0000 Yes • \$1.0000 Yes • \$1.0000 Yes • \$1.00000 Yes • \$1.00000 Yes • \$1.00000000 Yes • \$1.000000000000000000000000000000000000		
• S7-1200Yes• S7-1500Yes• S7-200Yes• S7-200Yes• S7-200Yes• S7-200Yes• UCGCIYes• UACCYes• WINACYes• SINUMERIKYes: with SINUMERIK option package• SINUMERIKYes: with SINUMERIK option package• SINUMERIKYes• Allen Bradley (DF1)Yes• Allen Bradley (DF1)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (FX)Yes• OMRON (FINS TCP)No• OMRON (LINK/Multikh)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus)Yes• OPC UA StriverYes• DPC UA StriverYes• Backup/Restore manuallyYes• Backup/Restore manuallyYes• Backup/Restore manuallyYes• Device switchoverYesPeripterals/OptionsYes: Up to 128 MBSIMATIC HMI MD memory card: Multi Media CardYes; Up to 128 MBSIMATIC HMI SD memory card: Stick)Yes; Up to 128 MBSIMATIC HMI SD memory card: Stick)Yes; Up to 128 MBSIMATIC HMI SD memory card: Stick)Yes; Up to 16 GBSIMATIC HMI USB stick)Yes; Up to 16 GBSIMATIC HMI USB stickYes; Up to 16 GBSIMATIC HMI USB stickYes; Up to 8 GBNetwork cameraYesMechanics/materialYes		Yes
• S7.1500Yes• S7.200Yes• S7.200Yes• S7.300/400Yes• CGC01Yes• WinACYes• NinACYes• SINUMERIKYes (with SINUMERIK option package)• SINUMERIKYes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (EtherNet/IP)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (FX)Yes• Mitsubishi (FX)Yes• OMRON (FINS TCP)No• OMRON (LINK/Mutilink)Yes• Modicon (Modbus)Yes• Oddicon (Modbus)Yes• OPC UA ClientYes• OPC UA ServerYes• Backup/Restore anuallyYes• Backup/Restore automaticallyYes• SimulationYes• Device switchoverYes• Device switchoverYesSIMATIC HMI Mmemory card: Mutil Media CardYes; Up to 128 MBSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 126 BSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 126 CBSIMATIC HMI SD stick)Yes; Up to 16 CBSIMATIC HMI USB stick)Yes; Up to 16 CB<		
• S7-200Yes• S7-300/400Yes• LOGO1Yes• LOGO1Yes• WinACYes• SINUMERIKYes; with SINUMERIK option package• SINUTIONYes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (EtherNet/IP)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (FX TCP)No• OMRON (LINK/Multilink)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus TCP/IP)Yes• Backup/Restore automaticallyYes• OPC UA ServerYes• Service tools/configuration aidsYes• Service tools/confunctionerYes• SimulationYes• Device switchoverYes• Peripherals/OptionsYesPrinterYesSiMATIC HMI MC memory card: Multi Media CardYes; Up to 128 MBSiMATIC HMI MC memory card: Secure Digital memory cardYesSiMATIC HMI MC Fmemory card Compact Flash CardNoUSB memoryYesSiMATIC HMI USB stick)Yes; Up to 16 GBSiMATIC HMI USB stick)Yes; Up to 16 GBSiMATIC HMI USB stick)Yes; Up to 16 GBSiMATIC HMI USB stickYes; Up to 16 GBSiMATIC HMI USB stickYe	• S7-1200	
• S7-300/400Yes• LOGOIYes• WinACYes• SINUMERIKYes; with SINUMERIK option package• SINUMERIKYes; with SINUMERIK option package• SINOTIONYes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (EtherNet/IP)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (FX)Yes• Mitsubishi (FX)Yes• OMRON (LINK/Mutilink)Yes• OMRON (LINK/Mutilink)Yes• Modicon (Modbus)Yes• Modicon (Modbus)Yes• OPC UA ClientYes• DPC UA ServerYes• Backup/Restore manuallyYes• Backup/Restore manuallyYes• Device switchoverYes• Diverse switchoverYesPariptierals/OptionsYes; Up to 128 MBSIMATIC HMI MM memory card: Mutil Media CardYes; Up to 128 MBSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 126 BSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 16 GBSIMATIC HMI USB stick)Yes; Up to 16 GBSIMATIC HMI USB stick)Y		
• LOGO!Yes• WinACYes• WinACYes; with SINUMERIK option package• SINUMERIKYes; with SINUMERIK option package• SINUTONYes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (EtherNet/IP)Yes• Allen Bradley (DF1)Yes• Mitsubishi (MC TCP/IP)Yes• Mitsubishi (FX)Yes• Mitsubishi (FX)Yes• Mitsubishi (FX)Yes• OMRON (FINS TCP)No• OMRON (LINK/Mutilink)Yes• OMRON (LINK/Mutilink)Yes• OMCON (LINK/Mutilink)Yes• OPC UA ClientYes• OPC UA ClientYes• Backup/Restore manuallyYes• Backup/Restore manuallyYes• Backup/Restore manuallyYes• Device switchoverYesPrinterYesPrinteral/OptionsYes; Up to 128 MBSIMATIC HMI MM memory card: Mutil Media CardYes; Up to 2 GBSIMATIC HMI SD memory card Compact Flash CardNoUSB memoryYesSIMATIC HMI USB stick)Yes; Up to 16 GBSIMATIC HMI USB stic		
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• Mitsubishi (KT CP/IP)Yes• Mitsubishi (FX)Yes• OMRON (FINS TCP)No• OMRON (LINK/Multilink)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus)Yes• OPC UA ClientYes• OPC UA ClientYes• OPC UA ServerYes• Service tools/configuration aidsYes• Backup/Restore manuallyYes• Backup/Restore automaticallyYes• SimulationYes• Device switchoverYesPrinterYesSIMATIC HMI MM memory card: Multi Media CardYes; Up to 128 MBSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 128 MBSIMATIC IPC USB Flashdrive (USB stick)Yes; Up to 16 GBSIMATIC HMI USB stickYes; Up to 16 GBSIMATIC HMI USB stickYes; Up to 18 GBNetwork cameraYesNetwork cameraYes		
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• OMRON (LINK/Multilink)Yes• Modicon (Modbus TCP/IP)Yes• Modicon (Modbus)Yes• OPC UA ClientYes• OPC UA ServerYes• Backup/Restore manuallyYes• Backup/Restore automaticallyYes• Backup/Restore automaticallyYes• Device switchoverYes• Device switchoverYes• Device switchoverYes• Differ SimulationYes• Diffe		Yes
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• OPC UA ClientYes• OPC UA ServerYesService tools/configuration aids• Backup/Restore manuallyYes• Backup/Restore automaticallyYes• Backup/Restore automaticallyYes• SimulationYes• Device switchoverYes• Device switchoverYes• Differentials/OptionsYesPrinterYesSIMATIC HMI MM memory card: Multi Media CardYes; Up to 128 MBSIMATIC HMI SD memory card: Secure Digital memory cardYes; Up to 2 GBSIMATIC HMI CF memory card Compact Flash CardNoUSB memoryYesSIMATIC IPC USB Flashdrive (USB stick)Yes; Up to 16 GBSIMATIC HMI USB stickYes; Up to 8 GBNetwork cameraYesMechanics/materialYes		
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SIMATIC IPC USB Flashdrive (USB stick) Yes; Up to 16 GB SIMATIC HMI USB stick Yes; Up to 8 GB Network camera Yes Mechanics/material Yes	SIMATIC HMI CF memory card Compact Flash Card	No
SIMATIC HMI USB stick Yes; Up to 8 GB Network camera Yes Mechanics/material Yes	USB memory	Yes
Network camera Yes Mechanics/material	SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
Mechanics/material	SIMATIC HMI USB stick	Yes; Up to 8 GB
		Yes
Enclosure material (front)	Mechanics/material	
	Enclosure material (front)	

Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	415 mm
Height of housing front	310 mm
Mounting cutout, width	396 mm
Mounting cutout, height	291 mm
Overall depth	73.2 mm
Weights	
Weight (without packaging)	4.4 kg

3/12/2024 🖸

Data sheet

6AV2124-0UC02-0AX1



SIMATIC HMI TP1900 Comfort, Comfort Panel, Touch operation, 19" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP

General information	
Product type designation	TP1900 Comfort
Display	
Design of display	TFT
Screen diagonal	18.5 in
Display width	409.8 mm
Display height	230.4 mm
Number of colors	16 777 216
Resolution (pixels)	
 Horizontal image resolution 	1 366 pixel
 Vertical image resolution 	768 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 	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	
 Direct keys (touch buttons as S7 input I/O) 	40
Installation type/mounting	
Mounting position	vertical
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
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	1.7 A

Starting current inrush I ² t	0.5 A ² ·s
Power	<u></u>
Active power input, typ.	41 W
	41 VV
Processor have	X86
Processor type	∧oo
Memory	Vec
Flash	Yes
RAM	Yes
Memory available for user data	24 Mbyte
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	Ne
• Buzzer	No
• Speaker	Yes
Time of day	
Clock	Ver
Hardware clock (real-time)	Yes
Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
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
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	NO
Industrial Ethernet status LED	3
Number of ports of the integrated switch	2
Protocols	2
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• CSS	Yes
Active X	Yes
JavaScript	Yes
• Java VM	No
Redundancy mode	
Media redundancy	

— MRP	Yes
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)	
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
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
IECEx Zone 2	Yes
IECEx Zone 22	Yes
cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes; For inscription on device rating plate
cULus Class II Division 2	No; Available soon
FM Class I Division 2	Yes; For inscription on device rating plate
FM Class II Division 2	No; Available soon
Marine approval	
Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS)	No
Bureau Veritas (BV)	No
Det Norske Veritas (DNV)	No
Korean Register of Shipping (KRS)	No
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (Class NK)	No
Polski Rejestr Statkow (PRS)	No
Chinese Classification Society (CCS)	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.	45 °C
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 storage/transportation	

e min	-20 °C
• min.	-20 °C
• max.	00 °C
Relative humidity	
Operation, max. Operating systems	90 %; no condensation
	No
proprietary	NO
pre-installed operating system Windows CE	Yes; Windows Embedded Compact 2013
configuration / header	res, windows Embedded Compact 2015
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
WinCo flexible Standard	No
WinCo flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
• time-controlled	Yes
task-controlled	Yes
Message system	
Number of alarm classes	32
Number of alarm classesBit messages	
 Number of alarm classes Bit messages — Number of bit messages 	32 6 000
 Number of alarm classes Bit messages Number of bit messages Analog messages 	6 000
 Number of alarm classes Bit messages Number of bit messages Analog messages Mumber of analog messages 	6 000 200
 Number of alarm classes Bit messages Number of bit messages Analog messages Number of analog messages S7 alarm number procedure 	6 000 200 Yes
 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages S7 alarm number procedure System messages HMI 	6 000 200 Yes Yes
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 Number of alarm classes Bit messages Number of bit messages Analog messages Analog messages S7 alarm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message 	6 000 200 Yes Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes Yes 80 8
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes 80 8 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator Recipe management Number of recipes 	6 000 200 Yes Yes Yes 80 8 8 Yes Yes
 Number of alarm classes Bit messages Number of bit messages Analog 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 Number of process values per message Acknowledgment groups Message indicator 	6 000 200 Yes Yes 80 8 Yes Yes

Size of internal regine memory	4 Mbyte
 Size of internal recipe memory Recipe memory expandable 	4 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	4 096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
	Yes
Arrays Images	
Number of configurable images	750
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	600
• 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	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	40
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	
Number of archives per device	50
Number of entries per archive	50 000
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	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	
Alarms	Yes
 Report (shift log) 	Yes
Hardcopy	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 as from WinCC V15 or higher
SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
• Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	Yes
OPC UA Client	Yes
OPC UA Server	Yes
OPC DA Server Service tools/configuration aids	
Backup/Restore manually	Yes
	Yes
Backup/Restore automatically Simulation	
Simulation Device switchever	Yes
Device switchover	Yes
Peripherals/Options	Vac
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
	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	

Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	483 mm
Height of housing front	337 mm
Mounting cutout, width	465 mm
Mounting cutout, height	319 mm
Overall depth	73.2 mm
Weights	
Weight (without packaging)	5.6 kg

3/12/2024 🖸

Data sheet

6AV2124-0XC02-0AX1



SIMATIC HMI TP2200 Comfort, Comfort Panel, Touch operation, 22" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP

General information		
Product type designation	TP2200 Comfort	
Display		
Design of display	TFT	
Screen diagonal	21.5 in	
Display width	475.2 mm	
Display height	267.3 mm	
Number of colors	16 777 216	
Resolution (pixels)		
 Horizontal image resolution 	1 920 pixel	
 Vertical image resolution 	1 080 pixel	
Backlighting		
 MTBF backlighting (at 25 °C) 	30 000 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		
 Direct keys (touch buttons as S7 input I/O) 	40	
Installation type/mounting		
Mounting position	vertical	
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	
permissible range, lower limit (DC)	19.2 V	
permissible range, upper limit (DC)	28.8 V	
Input current		
Current consumption (rated value)	1.7 A	

Starting current inrush I ² t	0.5 A ² ·s
Power	<u></u>
Active power input, typ.	41 W
	41 VV
Processor have	X86
Processor type	∧oo
Memory	Vec
Flash	Yes
RAM	Yes
Memory available for user data	24 Mbyte
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	Ne
• Buzzer	No
• Speaker	Yes
Time of day	
Clock	Ver
Hardware clock (real-time)	Yes
Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
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
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces Number of SD card slots	2
With software interfaces	No
Industrial Ethernet	NO
Industrial Ethernet status LED	3
Number of ports of the integrated switch	2
Protocols	2
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• CSS	Yes
Active X	Yes
JavaScript	Yes
• Java VM	No
Redundancy mode	
Media redundancy	

— MRP	Yes
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)	
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
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
IECEx Zone 2	Yes
IECEx Zone 22	Yes
cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes; For inscription on device rating plate
cULus Class II Division 2	No; Available soon
FM Class I Division 2	Yes; For inscription on device rating plate
FM Class II Division 2	No; Available soon
Marine approval	
Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS)	No
Bureau Veritas (BV)	No
Det Norske Veritas (DNV)	No
Korean Register of Shipping (KRS)	No
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (Class NK)	No
Polski Rejestr Statkow (PRS)	No
Chinese Classification Society (CCS)	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.	45 °C
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 storage/transportation	

• min.	-20 °C
• max.	-20 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	
Windows CE	Yes; Windows Embedded Compact 2013
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	
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; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
SIMATIC WinCC Sm@rtServer	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
• time-controlled	Yes
task-controlled	Yes
Message system	20
Number of alarm classes	32
Bit messages	0.000
— Number of bit messages	6 000
Analog messages	000
— 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
Recipe management	
Number of recipes	500
Data records per recipe	1 000
Entries per data record	2 000

Size of internal regine memory	4 Mbyte
 Size of internal recipe memory Recipe memory expandable 	4 Mbyte Yes
Recipe memory expandable Variables	
Number of variables per device	4 096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
	Yes
Arrays Images	
Number of configurable images	750
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	600
• 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	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	40
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	
Number of archives per device	50
Number of entries per archive	50 000
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	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	
Alarms	Yes
 Report (shift log) 	Yes
Hardcopy	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 as from WinCC V15 or higher
SIMOTION	Yes
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
• Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	Yes
OPC UA Client	Yes
OPC UA Server	Yes
OPC DA Server Service tools/configuration aids	
Backup/Restore manually	Yes
	Yes
Backup/Restore automatically Simulation	
Simulation Device switchever	Yes
Device switchover	Yes
Peripherals/Options	Vac
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
	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	

Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	560 mm
Height of housing front	380 mm
Mounting cutout, width	542 mm
Mounting cutout, height	362 mm
Overall depth	73.2 mm
Weights	
Weight (without packaging)	6.7 kg

3/12/2024 🖸

Data sheet

General information

6AV2124-1GC01-0AX0

SIMATIC HMI KP700 Comfort, Comfort Panel, key 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



Product type designation	KP700 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 	24
- Number of function keys with LEDs	24
Keys with LED	Yes
System keys	Yes
Numeric keyboard	Yes
alphanumeric keyboard	Yes; similar to mobile phone
Touch operation	
 Design as touch screen 	No; without
Expansions for operator control of the process	
DP direct LEDs (LEDs as S7 output I/O)	
— F1Fx	24
 Direct keys (keys as S7 input I/O) 	
— F1Fx	24
 Direct keys (touch buttons as S7 input I/O) 	0
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC

	2474
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)	0.5 A
Starting current inrush I ² t	0.5 A²·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	Yes
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
• synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	1
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	Vac
	Yes
Supports protocol for PROFINET IO	
	Yes; As of WinCC V12
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	Vee
	Yes
	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
 HTML XML 	Yes
	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)	
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	Yes
ATEX Zone 22	Yes
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	
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	
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°0
— 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 storage/transportation	
• min.	-20 °C

• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
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
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; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
● time-controlled	Yes
task-controlled	Yes
Message system	
 Number of alarm classes 	32
Bit messages	Yes
 Number of bit messages 	4 000
 Analog messages 	Yes
 — 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
Recipe management	
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
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	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	20
 Number of complex objects per screen 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	
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	Voc
— Memory card	Yes

	No.
— 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	
Alarms	Yes
 Report (shift log) 	Yes
• Hardcopy	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
	Yes
using external storage medium Process coupling	
• \$7-1200	Yes
• S7-1500	Yes
• \$7-200	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
 Mitsubishi (FX) 	Yes
OMRON (FINS TCP)	No
 OMRON (LINK/Multilink) 	Yes
 Modicon (Modbus TCP/IP) 	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
Mechanics/material	
Enclosure material (front)	
Plastic	No
	No

Aluminum	Yes	
Stainless steel	No	
Dimensions		
Width of the housing front	308 mm	
Height of housing front	204 mm	
Mounting cutout, width	282 mm	
Mounting cutout, height	178 mm	
Overall depth	63 mm	
Weights		
Weight (without packaging)	2.2 kg	
Weight (with packaging)	2.8 kg	

4/10/2024 🖸

Data sheet

6AV2124-1JC01-0AX0

SIMATIC HMI KP900 Comfort, Comfort Panel, key operation, 9" 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	KP900 Comfort
Display	
Design of display	TFT
Screen diagonal	9 in
Display width	195 mm
Display height	117 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	26
 — Number of function keys with LEDs 	26
Keys with LED	Yes
System keys	Yes
 Numeric keyboard 	Yes
 alphanumeric keyboard 	Yes; similar to mobile phone
Touch operation	
 Design as touch screen 	No; without
Expansions for operator control of the process	
 DP direct LEDs (LEDs as S7 output I/O) 	
— F1Fx	26
 Direct keys (keys as S7 input I/O) 	
— F1Fx	26
 Direct keys (touch buttons as S7 input I/O) 	0
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	No
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)	041/
	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	0.75 A
Starting current inrush I ² t	0.5 A ² ·s
Power	
Active power input, typ.	18 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	Yes
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
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	1
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	
	Yes
• HTTP	
• HTTP • HTTPS	Yes
	Yes 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)	
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	Yes
ATEX Zone 22	Yes
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	
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	
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°0
— 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 storage/transportation	
• min.	-20 °C

• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
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
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; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
● time-controlled	Yes
task-controlled	Yes
Message system	
 Number of alarm classes 	32
Bit messages	Yes
 Number of bit messages 	4 000
 Analog messages 	Yes
 — 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
Recipe management	
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
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	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	20
 Number of complex objects per screen 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	
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	Voc
— Memory card	Yes

	No.
— 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	
Alarms	Yes
 Report (shift log) 	Yes
• Hardcopy	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
	Yes
using external storage medium Process coupling	
• \$7-1200	Yes
• S7-1500	Yes
• \$7-200	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
 Mitsubishi (FX) 	Yes
OMRON (FINS TCP)	No
 OMRON (LINK/Multilink) 	Yes
 Modicon (Modbus TCP/IP) 	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
Mechanics/material	
Enclosure material (front)	
Plastic	No
	No

Aluminum	Yes	
Stainless steel	No	
Dimensions		
Width of the housing front	361.2 mm	
Height of housing front	230 mm	
Mounting cutout, width	338 mm	
Mounting cutout, height	206 mm	
Overall depth	63 mm	
Weights		
Weight (without packaging)	2.7 kg	
Weight (with packaging)	3.4 kg	

4/10/2024 🖸

Data sheet

6AV2124-1MC01-0AX0

SIMATIC HMI KP1200 Comfort, Comfort Panel, key operation, 12" 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	KP1200 Comfort	
Display		
Design of display	TFT	
Screen diagonal	12.1 in	
Display width	261.1 mm	
Display height	163.2 mm	
Number of colors	16 777 216	
Resolution (pixels)		
 Horizontal image resolution 	1 280 pixel	
Vertical image resolution	800 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 	34	
 — Number of function keys with LEDs 	34	
Keys with LED	Yes	
System keys	Yes	
Numeric keyboard	Yes	
 alphanumeric keyboard 	Yes; similar to mobile phone	
Touch operation		
 Design as touch screen 	No; without	
Expansions for operator control of the process		
 DP direct LEDs (LEDs as S7 output I/O) 		
— F1Fx	34	
 Direct keys (keys as S7 input I/O) 		
— F1Fx	34	
 Direct keys (touch buttons as S7 input I/O) 	0	
Installation type/mounting		
Mounting position	vertical	
Wall mounting/direct mounting	No	
Mounting in portrait format possible	No	
Mounting in landscape format possible	Yes	
maximum permissible angle of inclination without external ventilation	35°	
Supply voltage		
Type of supply voltage	DC	

	2474
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)	0.85 A
Starting current inrush I ² t	0.5 A²·s
Power	
Active power input, typ.	20 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	Yes
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
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	1
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
	0
Number of parallel interfaces	0
Number of SD card slots	2
With software interfaces	2 No
Industrial Ethernet	NO
Industrial Ethernet status LED	0
	2
Number of ports of the integrated switch	2
Protocols	Ver
	Yes
Supports protocol for PROFINET IO	Yes
	Yes; As of WinCC V12
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	N.
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• 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)	
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
	Yes
KC approval Use in hazardous areas	Tes
ATEX Zone 2	Yes
ATEX Zone 22	
	Yes
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	
Germanischer Lloyd (GL)	Yes; As of product version: 10
American Bureau of Shipping (ABS)	Yes; As of product version: 10
Bureau Veritas (BV)	Yes; As of product version: 10
Det Norske Veritas (DNV)	Yes; As of product version: 10
Lloyds Register of Shipping (LRS)	Yes; As of product version: 10
Nippon Kaiji Kyokai (Class NK)	Yes; As of product version: 10
Polski Rejestr Statkow (PRS)	No
Ambient conditions	
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 storage/transportation	
• min.	-20 °C

• max.	60 °C
Relative humidity	
Operation, max.	90 %; no condensation
Operating systems	
proprietary	No
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
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; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
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	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
● time-controlled	Yes
task-controlled	Yes
Message system	
 Number of alarm classes 	32
Bit messages	Yes
 Number of bit messages 	4 000
 Analog messages 	Yes
 — 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
Recipe management	
Number of recipes	300
Data records per recipe	500
Entries per data record	1 000
 Size of internal recipe memory 	2 Mbyte

Recine memory expandable	Yes
Recipe memory expandable Variables	162
	2 048
Number of variables per device Number of variables per screen	400
 Number of variables per screen Limit values 	Yes
	Yes
Multiplexing	Yes
Structures	Yes
Arrays Images	Tes
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	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	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	
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

	No.
— 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	
Alarms	Yes
 Report (shift log) 	Yes
• Hardcopy	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	
• \$7-1200	Yes
	Yes
• S7-1500	
• S7-200	Yes
• \$7-300/400	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
 Mitsubishi (FX) 	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
 Modicon (Modbus TCP/IP) 	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
Mechanics/material	
Enclosure material (front)	
Plastic	No
	NO

Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	454 mm
Height of housing front	289 mm
Mounting cutout, width	434 mm
Mounting cutout, height	269 mm
Overall depth	64.6 mm
Weights	
Weight (without packaging)	4.4 kg
Weight (with packaging)	5.7 kg

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Data sheet

6AV2124-1QC02-0AX1

SIMATIC HMI KP1500 Comfort, Comfort Panel, key operation, 15" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable as of WinCC Comfort V14 SP1 with HSP, ambient temperature up to 50 °C (up to 55 °C with restrictions)



General information	
Product type designation	KP1500 Comfort
Display	
Design of display	TFT
Screen diagonal	15.4 in
Display width	331.2 mm
Display height	207 mm
Number of colors	16 777 216
Resolution (pixels)	
 Horizontal image resolution 	1 280 pixel
 Vertical image resolution 	800 pixel
Backlighting	
 MTBF backlighting (at 25 °C) 	80 000 h
Backlight dimmable	Yes; LED, dimmable
Control elements	
Keyboard fonts	
Function keys	
 Number of function keys 	36
 — Number of function keys with LEDs 	36
Keys with LED	Yes
System keys	Yes
Numeric keyboard	Yes
 alphanumeric keyboard 	Yes
Touch operation	
Design as touch screen	No; without
Expansions for operator control of the process	
 DP direct LEDs (LEDs as S7 output I/O) 	
— F1Fx	36
 Direct keys (keys as S7 input I/O) 	
— F1Fx	36
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	No
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
permissible range, lower limit (DC)	19.2 V

permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	1.7 A
Starting current inrush I ² t	0.5 A ² ·s
Power	
Active power input, typ.	41 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	24 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
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	0
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
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 	3
 Number of ports of the integrated switch 	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• CSS	Yes
Active X	Yes
JavaScript	Yes

• Java VM	No
	NO
Redundancy mode Media redundancy	
— MRP	Yes
Further protocols	
• CAN	No
• MODBUS	Yes
Interrupts/diagnostics/status information	
Diagnoses	Ver C7 centreller
Diagnostic information readable EMC	Yes; S7 controller
Emission of radio interference acc. to EN 55 011	Vee
Limit class A, for use in industrial areas	Yes
Limit class B, for use in residential areas	No
Degree and class of protection	IDAG
IP (at the front)	IP65
	IP20
NEMA (front)	Vee
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
EAC (formerly Gost-R)	Yes
Use in hazardous areas	Y.
ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• IECEx Zone 2	Yes
IECEx Zone 22	Yes
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes; For inscription on device rating plate
• cULus Class II Division 2	No; Available soon
• FM Class I Division 2	Yes; For inscription on device rating plate
FM Class II Division 2	No; Available soon
Marine approval	
Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS)	No
Bureau Veritas (BV)	No
Det Norske Veritas (DNV)	No
Korean Register of Shipping (KRS)	No
Lloyds Register of Shipping (LRS)	No
Nippon Kaiji Kyokai (Class NK)	No
Polski Rejestr Statkow (PRS)	No
Chinese Classification Society (CCS)	No
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	0.00
— 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, min. — At maximum tilt angle, max.	40 °C
Ambient temperature during storage/transportation	
	-20 °C
• min.	-20 °C
• max.	
Relative humidity	0.0%: no condensation
Operation, max.	90 %; no condensation
Operating systems	Ne
proprietary	No
pre-installed operating system	Voc: Windows Embodded Compact 2012
Windows CE	Yes; Windows Embedded Compact 2013
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	N
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; V14 SP1 HSP and higher
WinCC Advanced (TIA Portal)	Yes; V14 SP1 HSP and higher
WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
Languages	
Online languages	
Number of online/runtime languages	32
Project languages	
Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Libraries Applications/options	
Libraries Applications/options • Web browser	Yes
Libraries Applications/options • Web browser • Pocket Word	Yes Yes
Libraries Applications/options • Web browser • Pocket Word • Pocket Excel	Yes Yes
Libraries Applications/options • Web browser • Pocket Word • Pocket Excel • PDF Viewer	Yes Yes Yes
Libraries Applications/options • Web browser • Pocket Word • Pocket Excel • PDF Viewer • Media Player	Yes Yes Yes Yes
Libraries Applications/options • Web browser • Pocket Word • Pocket Excel • PDF Viewer • Media Player • SIMATIC WinCC Sm@rtServer	Yes Yes Yes Yes Yes
Libraries Applications/options • Web browser • Pocket Word • Pocket Excel • PDF Viewer • Media Player • SIMATIC WinCC Sm@rtServer • SIMATIC WinCC Audit	Yes Yes Yes Yes Yes Yes
Libraries Applications/options • 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
Libraries Applications/options • 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
Libraries Applications/options • 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
Libraries Applications/options • 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
Libraries Applications/options • 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 Yes Yes Yes Yes Yes Yes Yes
Libraries Applications/options • 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 • Number of alarm classes	Yes Yes Yes Yes Yes Yes Yes
Libraries Applications/options • 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 • task-controlled • bitmessage system • Number of alarm classes • Bit messages	Yes Yes Yes Yes Yes Yes Yes Yes
Libraries Applications/options • 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	Yes Yes Yes Yes Yes Yes Yes Yes
Libraries Applications/options • 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 • Anumber of bit messages • Analog messages	Yes Yes Yes Yes Yes Yes Yes 32 6 000
Libraries Applications/options • 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 • task-controlled • task-controlled • task-controlled • task-controlled • humber of alarm classes • Bit messages - Number of bit messages • Analog messages - Number of analog messages	Yes Yes Yes Yes Yes Yes Yes 32 6 000 200
Libraries Applications/options • 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 • task-controlled • bit messages • Number of alarm classes • Bit messages Number of bit messages • Analog messages Number of analog messages • S7 alarm number procedure	Yes Yes Yes Yes Yes Yes Yes 32 6 000 200 Yes
Libraries Applications/options • 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 • task-controlled • task-controlled • task-controlled • task-controlled • humber of alarm classes • Bit messages - Number of bit messages • Analog messages - Number of analog messages	Yes Yes Yes Yes Yes Yes Yes 32 6 000 200
Libraries Applications/options • 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 32 6 000 200 Yes
Libraries Applications/options • 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 22 6 000 200 Yes Yes Yes
Libraries Applications/options • 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 • 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 200 Yes Yes 80
Libraries Applications/options • 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 • Analog messages • S7 alarm number procedure • 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 32 6 000 200 Yes Yes Yes Yes Yes
Libraries Applications/options • 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 • Analog messages • S7 alarm number procedure • System messages HMI • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) • Number of characters per message • Aumber of process values per message • Acknowledgment groups	Yes Y
Libraries Applications/options • 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 • Analog messages • S7 alarm number procedure • 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 32 6 000 200 Yes Yes Yes Yes

Number of recipes	500
Data records per recipe	1 000
Entries per data record	2 000
Size of internal recipe memory	4 Mbyte
Recipe memory expandable	Yes
Variables	
Number of variables per device	4 096
 Number of variables per screen 	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
• Arrays	Yes
Images	
 Number of configurable images 	750
 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	600
 Number of objects per image Text fields 	600 Yes
	Yes
I/O fields Craphic I/O fields (craphics list)	Yes
 Graphic I/O fields (graphics list) Symbolic I/O fields (text list) 	Yes
Date/time fields	Yes
Switches	Yes
Buttons	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	
Number of complex objects per screen	40
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 Lists	Yes
Number of text lists per project	500
Number of text lists per project Number of entries per text list	500
Number of entries per text list 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	50 000
Message archive	Yes
Process value archive	Yes
Archiving methods	

Or muratic Lanching	N
— 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	
• Alarms	Yes
Report (shift log)	Yes
Hardcopy	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 as from WinCC V15 or higher
• SIMOTION	Yes
 Allen Bradley (EtherNet/IP) 	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	Yes
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	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
Mechanics/material	
Enclosure material (front)	
Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	483 mm
Height of housing front	310 mm
Mounting cutout, width	450 mm
Mounting cutout, height	291 mm
Overall depth	73.2 mm
Neights	
Weight (without packaging)	4.7 kg
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