SIEMENS

Data sheet

6AV2144-8GC10-0AA0



SIMATIC HMI TP700 Comfort INOX, Stainless steel front, Con-tinuous decorative film, Degree of protection front IP66K, 7" widescreen TFT display, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, (Microsoft Support included Security updates discontinued) configurable from WinCC Comfort V11

General information	
Product type designation	TP700 Comfort INOX
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; capacitive
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
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

normiasible range lawer limit (DC)	40.0.1/
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	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)	Va
• TCP/IP	Yes
	Yes
• SNMP	Yes
• DCP	Yes
LLDP	Yes
WEB characteristics	Vac
	Yes
• HTTPS	Yes
• HTML • XML	Yes
	Yes
• CSS	Yes

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No No Redundancy mole - Mode standancy - - MRP Yes, As of WINCC V12 Interferences No - - MRP Yes, As of WINCC V12 - MRP No - MRD No - MRD Yes Effor - - - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in industrial areas Yes - Intel class A, for use in the fort No - Intel class A, for use in industrial areas Yes - Intel class A, for use	Active X	Yes
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Media redundancy MP Further protocols • CAN No • MCDBUS Yes EMG		NO
Fundamental events No • CAN No • MODBUS Yes EMC ************************************	-	
• CAN No • MODBUS Yes EMC Emainson of maio interference acc. to EM 95.011 • Limit class A, for use in incidential areas No Depresent class for protection IP 66K [P (at the front) IP 66K [C (at the front) IP 66K [C (at the front) IP 66K [C (at the front) Yes		Yes; As of WINCE V12
Ves ENC Enclose Enclose Enclose Final class A, for use in industrial areas No Degree and class of protection IP (af the front), IP66k IP (area) IP20 NEMA (front) IP66k CE mark Ves Outlus Yes RDA (formerly OSAR) Yes RDA (formerly OSAR) Yes IPA (The front) Yes	· · · ·	N.
Entistion of radio interference acc. to EN 55 011 Elimit class B, for use in insidemilal areas No Pl (ath form) IP 686K PP (ath form) IP 686K Pl (ath form) IP 686K Enclosus Type 4 ath form No Enclosus Type 4 ath form Yes CE mark Ves CEL mark Yes FM approval Yes CEL mark Yes </td <td></td> <td></td>		
Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas Yes • Limit class of production IP (at the front) IP (at the front) IP 66k (IP (rem) IP 20 NEMA (front) Ves CL mark Yes cdLus Yes CAU (formerly CostR) Yes LOG (connerly CostR) Yes Ves Yes		Yes
Limit class A, for use in industrial areas No No Jack SH, for use in residential areas No Jack SH, for use in residential areas No Jack SH, for use in residential areas Jack SH, for use in residential Jack SH, for use In the fort Jack SH, for use Interval Jack SH, for use IN Jack SH, for Use IN		
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Degree and class of protection IP (tath front) IP 66K IP (rear) IP 20 NEMA (front) - - Enclosure Type 4 at the front No - Enclosure Type 4 at the front Yes; indoor use only Standards, approvals, certificates - CE mark Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes RCM (formerly C-TICK) Yes CLUs Yes CAC (formerly Cost-R) Yes RCA (formerly C-TICK) Yes CATEX Zone 2 Yes - ATEX Zone 2 Yes - ATEX Zone 2 Yes - ECCE zone 22 Yes - ECCE zone 22 Yes - EUCIA Scane 2 Yes <		
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Ambient temperature during operation Operation (vertical installation) For vertical installation, min. 0 °C For vertical installation, max. 50 °C Operation (max. tilt angle)	 Polski Rejestr Statkow (PRS) 	No
Operation (vertical installation) 0 °C — For vertical installation, max. 50 °C Operation (max. til angle) - At maximum til angle, min. — At maximum til angle, max. 0 °C — At maximum til angle, max. 40 °C Operation (vertical installation, min. 0 °C — At maximum til angle, max. 40 °C Operation (vertical installation, portrait format) 0 °C — For vertical installation, min. 0 °C — For vertical installation, max. 40 °C Operation (max. tilt angle, portrait format) 0 °C — For vertical installation, max. 0 °C — For vertical installation, max. 40 °C Operation (max. tilt angle, portrait format) 0 °C — At maximum tilt angle, min. 0 °C — At maximum tilt angle, max. 35 °C Ambient temperature during storage/transportation -20 °C • max. 60 °C	Ambient conditions	
— For vertical installation, min.0 °C— For vertical installation, max.50 °COperation (max. tilt angle)0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.40 °COperation (vertical installation, portrait format)0 °C— For vertical installation, min.0 °C— For vertical installation, max.40 °COperation (max. tilt angle, portrait format)0 °C— For vertical installation, max.40 °COperation (max. tilt angle, portrait format)0 °C— At maximum tilt angle, portrait format)-— At maximum tilt angle, min.0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• min20 °C• max.60 °C	Ambient temperature during operation	
— For vertical installation, max.50 °COperation (max. tilt angle)0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.40 °COperation (vertical installation, portrait format)0 °C— For vertical installation, min.0 °C— For vertical installation, max.40 °COperation (max. tilt angle, portrait format)0 °C— At maximum tilt angle, portrait format)0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	Operation (vertical installation)	
Operation (max. tilt angle) 0 °C - At maximum tilt angle, min. 0 °C - At maximum tilt angle, max. 40 °C Operation (vertical installation, portrait format) 0 °C - For vertical installation, min. 0 °C - For vertical installation, max. 40 °C Operation (max. tilt angle, portrait format) 0 °C - For vertical installation, max. 40 °C Operation (max. tilt angle, portrait format) 0 °C - At maximum tilt angle, min. 0 °C - At maximum tilt angle, max. 35 °C Ambient temperature during storage/transportation -20 °C • max. 60 °C	— For vertical installation, min.	0°C
At maximum tilt angle, min.0 °C At maximum tilt angle, max.40 °COperation (vertical installation, portrait format) For vertical installation, min For vertical installation, max.0 °C For vertical installation, max.40 °COperation (max. tilt angle, portrait format) At maximum tilt angle, portrait format) At maximum tilt angle, min.0 °C At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	— For vertical installation, max.	50 °C
- At maximum tilt angle, max.40 °COperation (vertical installation, portrait format)0 °C- For vertical installation, min.0 °C- For vertical installation, max.40 °COperation (max. tilt angle, portrait format)40 °C- At maximum tilt angle, min.0 °C- At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	Operation (max. tilt angle)	
Operation (vertical installation, portrait format) 0 °C — For vertical installation, min. 40 °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 -20 °C • max. 60 °C	— At maximum tilt angle, min.	0°C
— For vertical installation, min.0 °C— For vertical installation, max.40 °COperation (max. tilt angle, portrait format)-— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	— At maximum tilt angle, max.	40 °C
— For vertical installation, max.40 °COperation (max. tilt angle, portrait format)0 °C— At maximum tilt angle, min.0 °C— At maximum tilt angle, max.35 °CAmbient temperature during storage/transportation-20 °C• max.60 °C	Operation (vertical installation, portrait format)	
Operation (max. tilt angle, portrait format) 0 °C — At maximum tilt angle, min. 0 °C — At maximum tilt angle, max. 35 °C Ambient temperature during storage/transportation -20 °C • min. 60 °C • max. 60 °C	— For vertical installation, min.	0°C
— At maximum tilt angle, min. 0 °C — At maximum tilt angle, max. 35 °C Ambient temperature during storage/transportation -20 °C • min. -20 °C • max. 60 °C	— For vertical installation, max.	40 °C
— At maximum tilt angle, max. 35 °C Ambient temperature during storage/transportation -20 °C • min. -20 °C • max. 60 °C	Operation (max. tilt angle, portrait format)	
Ambient temperature during storage/transportation • min. -20 °C • max. 60 °C	— At maximum tilt angle, min.	0°C
• min20 °C • max. 60 °C	— At maximum tilt angle, max.	35 °C
• max. 60 °C	Ambient temperature during storage/transportation	
	• min.	-20 °C
Relative humidity	• max.	60 °C
	Relative humidity	

Operating systems No proprietary No 	• Operation, max.	90 %; no condensation
Importance No • Workdows CE Yes • Workdows CE Yes • Workdows CE Yes • Workdows CE Yes • Message Indication Jbasteder Yes • Message Indication adknowledgment() Yes • Process value offeut (Input yossible Yes Configuration adfaunt No ViviCC Branck (TIA Portal) No ViviCC Canadid Advanced No ViviCC Canadid Advanced No ViviCC Advanced No ViviCC Advanced No </td <td></td> <td></td>		
presentated operating system Yes Configuration / Reader Yes Adams system (nich. Differ and acknowledgment) Yes Adams system (nich. Differ and acknowledgment) Yes Process value disply (optyn) No *TEP 7 Basic (TIA Portal) No *TEP 7 Basic (TIA Portal) No *TEP 7 Basic (TIA Portal) No *WICC Cheatibe Schaderd No *WICC Cheatibe Schaderd No *WICC Cheatibe Schaderd No *WICC Cheatibe Schaderd No *WICC Cheatibe Advanced No *WICC Cheatibe Schaderd No *WICC Cheatibe Schaderd No *WICC Cheatibe Schaderd Yes, from V11 *WICC Cheatibe Schaderd Yes, from V11 *WICC Cheatibe Marced Yes *WICC Cheatibe Characed Yes *WICC Cheatibe Characed Yes *WICC Marced Characed Yes <t< td=""><td></td><td>No</td></t<>		No
• Wardow CE Yes Configuration / hasker Message indicator Yes Aarm system (inc) buffer all acknowledgment) Yes Process value didfaul (incl) possible Yes Process value didfaul (incl) possible Yes Configuration software Yes Office Pasic (TA Portal) No • WINCC Enable Compare No • WINCC Enable Advanced Yes • Outpristore Yes • Outpristore Yes • Outpristore Yes • Outpristore Yes • OutpreVener Yes		
Message Industor Yes Alam system (incl. buff and acknowledgement) Yes Process value defuel ((put) possible Yes Process value defuel (put) possible Yes Recipe management Yes estimation software ************************************		Yes
Message Industor Yes Alam system (incl. buff and acknowledgement) Yes Process value defuel ((put) possible Yes Process value defuel (put) possible Yes Recipe management Yes estimation software ************************************	configuration / header	
Aum system (not buffer and acknowledgment) Yes Process value display (output) Yes Process value display (output) Yes Reope management Yes • STEP 7 Basic (The Portal) No • STEP 7 Professional (The Portal) No • STEP 7 Professional (The Portal) No • WinCC feable Standard No • WinCC feable Advanced No • WinCC feable Advanced (The Portal) Yes; from V11 • WinCC Advanced (The Portal) Yes; from V11 • WinCC Advanced (The Portal) Yes; from V11 • WinCC Advanced (The Portal) Yes; from V11 • Unable of online-fundime languages S2 • Product Stard Yes • Advanced (The Portal) Yes • Advanced (The Portal) Yes • Monte of online-fundime languages		Yes
Process vulue display (output) Yes Process vulue display (output) Yes Respen management Yes Configuration software * • STEP 7 Professional (TA Portal) No • WinCC fields Compact No • WinCC fields Compact No • WinCC fields Advanced No • WinCC fields Compact No • WinCC fields Advanced Yes, from V11 • WinCC Fields (TA Portal) Yes, from V11 • WinCC Fields (TA Portal) Yes, from V11 • WinCC Fields (TA Portal) Yes, from V11 • More fields (Ta Portal) Yes, from V11 • More fields (TA Portal) Yes, from V11 • More fields (Yes, Yes, Yes, Yes, Yes, Yes, Yes, Yes,	· · · · · ·	
Process value defaut (nur) possible Yes Recipe management Yes • STEP 7 Recisional (TA Porta) No • STEP 7 Necksional (TA Porta) No • WINCC fluxble Standard No • WINCC Charble Advanced (TLA Porta) Yes; from V11 • WINCC Charber Advanced (TLA Porta) Yes; from V11 • WINCC Charber Advanced (TLA Porta) Yes; from V11 • WINCC Advanced (TLA Porta) Yes; from V11 • WinC Charber Advanced (TLA Porta) Yes • Polici Languages 22 • Applications/putition Yes • Polici Languages Yes • Polo		Yes
Configuration No • STEP 7 Bask (TIA Porta) No • STEP 7 Tokshon (TIA Porta) No • WinCC flexible Standard No • WinCC Exclose Advanced (TIA Portal) Yas; from V11 • WinCC Control (TIA Portal) Yas; from V11 • WinCC Posicional (TIA Portal) Yas; from V11 • WincC Resisting Expression Yas • Concert Word Yas • Number of online/unritime languages 32 Functionality under WindC (TIA Portal) Yas • Languages per project 32 • Positime Controlled Yas • Positime Controlled Yas • Positime Controlled Yas • Positime Controlled Yas • Positime Controlessons (TIA Portal)		Yes
NoSTEP 7 Paise (TIA Porta)No• STEP 7 Professional (TIA Porta)No• WINCC Reable CompactNo• WINCC Reable AdvancedNo• WINCC Reable AdvancedNo• WINCC Reable AdvancedNo• WINCC Reable AdvancedNo• WINCC Control (TA Porta)Yes, from V11• United contine InsignagesJet Porta• Autor control (TA Porta)Yes, from V11• WINCC (TA Porta)Yes• Autor control (TA Porta)Yes• Autor control (TA Porta)Yes• Autor control (TA Porta)Yes• Autor control (Yes)Yes• Applications/potonsYes• Applications/potonsYes• Mode PoyerYes• Number of alarcensesJet Poyer• Number of alarcensesJet Poyer• Number of alarcensesYes• Mode PoyerYes• Manale procedureYes• Mumber of alarcensesYes• Mumber of alarcenses <td< td=""><td>Recipe management</td><td>Yes</td></td<>	Recipe management	Yes
NoWinCC flexible CompactNoWinCC flexible StandardNoWinCC flexible StandardNoWinCC flexible AdvancedNoWinCC Catable StandardNoWinCC Catable AdvancedNoWinCC Comfor (TA Portal)Yes, from V11WinCC Comfor (TA Portal)Yes, from V11WinCC Comfor (TA Portal)Yes, from V11WinCC Comfor (TA Portal)Yes, from V11Uncertain State S	Configuration software	
• WinCC flexible StandardNo• WinCC flexible StandardNo• WinCC flexible AdvancedNo• WinCC Exible AdvancedNo• WinCC Castle (TA Portal)Yes; from V11• WinCC Confer (TA Portal)Yes; from V11• WinCC Ordessional (TA Portal)Yes; from V11• WinCC Information Information Information32Project Ianguages32• Project Ianguages per project32• Number of onlime/runnime languagesYes• Number of Number VIIYes• Poolet ExcelYes• Poolet ExcelYes• Poolet ExcelYes• Poolet ExcelYes• Number of value Basis CorptsYes• SIMATIC WinCC AduitYes• Number of value Basis CorptsYes• Number of value Basis CorptsYes• Number of value Basis CorptsYes• Number of valuesses20• SIMATIC WinCC Mick Surgesses20• Simation (SIMATIC ST, SINUMERIK, Singerse)Yes• Number of valuesses per info textYes• Number of valuesses per solutionYes• Number of valuesse	STEP 7 Basic (TIA Portal)	No
•WnCC fiesible AdvancedNo•WnCC fiesible AdvancedNo•WnCC Stackie (TA Portal)Yes; from V11•WnCC Advanced (TA Portal)Yes; from V11•WnCC Advanced (TA Portal)Yes; from V11•WnCC Professional (TIA Portal)Yes; from V11•WnCC Professional (TIA Portal)Yes; from V11•WnCC Advanced TIA Portal)Yes; from V11•WnCC Insteiner, with the status of t	 STEP 7 Professional (TIA Portal) 	No
• WinCC fieldle AdvancedNo• WinCC Confor (TA Porta)Yes, from V11• WinCC Advanced (TA Porta)Yes, from V11• WinCC Advanced (TA Porta)Yes, from V11• WinCC Profesional (TA Porta)Yes, from V11• UnicC Profesional (TA Porta)Yes• Number of onliner/unine languages32• Project IonguagesYes• Languages per project32• Vieb browserYes• Vieb browserYes• Pocket WordYes• Pocket EscelYes• Pocket EscelYes• Pocket BorgYes• Model PlayerYes• Number of haracters per info textYes• System number (SINATIC S7, SINUMERIK, Sinut YesYes• System event, mere (SINATIC S7, SINUMERIK, Sinut YesYes• Number of haracters per message8• Acknowledgment groupsYes• Number of haracters per message8• Number of haracters per message8• Number of haracters per message8	WinCC flexible Compact	No
• WinCC Basic (TIA Portal)No• WinCC Combot (TIA Portal)Yes; from V11• WinCC Advanced (TA Portal)Yes; from V11• WinCC Professional (TIA Portal)Yes; from V11• WinCC Professional (TIA Portal)Yes; from V11• Languages2• Languages2• Languages2• Languages2• Under Winder Wind	WinCC flexible Standard	No
• WinCC Confort (TIA Portal) Yes; from V11 • WinCC Advanced (TIA Portal) Yes; from V11 • WinCC Portessional (TIA Portal) Yes; from V11 • Languages - Online languages 32 Project languages 32 Functionality under WinCC (TIA Portal) Yes Lbarates Yes - Languages per project 32 Functionality under WinCC (TIA Portal) Yes Lbarates Yes - Applications/options Yes • Web browser Yes • Pocket Korel Yes • Pocket Korel Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes • SIMATIC WinCC Audit Yes • SIMATIC WinCC Audit Yes • Task planner - • Itime-controlled Yes • Task planner - • Number of characters per into text 70 • Number of alarm classes 32 • Elt messages 200 • Stalatm number procedure	WinCC flexible Advanced	No
• WinCC Abranced (TIA Portal)Yes; from V11• WinCC Professional (TIA Portal)Yes; from V11• Number of online/numitie languages32• Number of online/numitie languages32• Project languages32• Languages per project32• Project languagesYes• Applications/optionsYes• Pocket WordYes• Pocket WordYes• Pocket WordYes• Pocket ExcelYes• Pocket ExcelYes• BitATIC WinCC GrafterverYes• SiMATIC WinCC AuditYes• Sima Portice SorightsYes• Number of alam classes32• Number of alam classes32• Sima Portice SorightsYes• Number of alam classes32• Sima Portice Soright	WinCC Basic (TIA Portal)	No
• WinCC Professional (TIA Portal) Yes; from V11 Languages . Online languages 32 Project languages 32 Functionality under WinCC (TIA Portal) . Libralies Yes Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • SIMATIC WinCC Sam@rtServer Yes • SIMATIC WinCC Audit Yes • Number of brane classes Yes • SIMATIC WinCC Audit Yes • Bask plannar Yes • tiask-controlled Yes • Bask paramet 70 • Number of brane classes 32 • Bit messages 4 0000 • Analog messages 200 • Number of characters per info text Yes • Number of characters per message 80 • Number of characters per messages 4 000 <	WinCC Comfort (TIA Portal)	Yes; from V11
Languages Number of online/runtime languages 32 Project languages 32 Languages per project 32 Project languages per project 32 Libraries Yes Applications/cptions Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • POF Viewer Yes • SIMATIC WinCC SinghtServer Yes • SIMATIC WinCC Audit Yes • Simatic Wince Audit Yes • Task planner Yes • Inne-controlled Yes • Number of characters per info text 70 Message system • Number of alarn classes 32 • Bit messages 4000 • Analog messages 200 • System messages HMI Yes • System messages HMI Yes • System messages HMI Yes • Ankorder per procedure <td< td=""><td>WinCC Advanced (TIA Portal)</td><td>Yes; from V11</td></td<>	WinCC Advanced (TIA Portal)	Yes; from V11
Online languages 32 • Number of online/runtime languages 32 Forject languages 32 • Languages per project 32 Functionality under Winder (IA Portal) 1 Libraries Yes Applications/options Yes • Web browser Yes • Pocket Excel Yes • Pocket Excel Yes • Media Player Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC CandgrtServer Yes • Ime-controlled Yes • Task planner Yes • Ime-controlled Yes • Number of characters per info text 70 Message system 4000 • Number of alang massages 200 • S7 alarm number procedure Yes • System messages HM Yes • System messages HM Yes • System messages HM Yes • Number of characters per message 80 • Number of characters per message 80 • Number of characters per message	WinCC Professional (TIA Portal)	Yes; from V11
• Number of online/nutime languages 32 Project languages 32 Functionality under WinCC (TIA Portal) 32 Libraries Yes Applications/options Yes • Web browser Yes • Pooket Word Yes • Pooket Excel Yes • Pooket Excel Yes • Media Player Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner • • time-controlled Yes • Number of alarm classes 32 • Number of alarm classes 32 • Bit messages 4000 • Analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, Yes 30 • Number of characters per message 80 • Circulating Duffer Yes • Number of alarm classes 92 • System event, more (SIMATIC S7, SINUMERIK, Yes • System event, more (SIMATIC S7, SINUMERIK, Yes • Number of characte	Languages	
Project languages 32 • Languages per project 32 Functionality under WinCC (TIA Portal) • Libraries Yes Applications/options Yes • Web browser Yes • Pocket Excel Yes • Pocket Excel Yes • Media Pakyer Yes • SIMATIC WinCC Sm@rtServer Yes • SIMATIC WinCC Audit Yes • Task planner Yes • time-controlled Yes • task-controlled Yes • Number of characters per info text 70 Message system 32 • Number of alam classes 32 • Dit messages 4000 • Analog messages 200 • System messages HMI Yes • System messages HMI Yes • System rot characters per message 80 • Number of characters per message 80 • Number of characters per message 80 • System messages HMI Yes • System rot characters per message 80 • Number of characters per message 80	Online languages	
 Languages per project 22 Functionality under WinCC (TLA Portal) Libraries Veb browser Applications/options Veb browser Yes Applications/options Veb browser Yes Pocket Word Yes Pocket Excel Yes Pocket Excel Yes Nedia Player Yes SIMATIC WinCC Audit Yes SIMATIC WinCC Audit Yes Martic Strong of the second second	 Number of online/runtime languages 	32
Functionality under WinCC (TIA Portal) Libraries Yes Applications/options Yes • Web browser Yes • Docket Word Yes • Docket Word Yes • Docket Word Yes • Docket Word Yes • Docket Excel Yes • Did Pilor Viewer Yes • SIMATIC WinCC AughtServer Yes • SIMATIC WinCC Audit Yes • SiMATIC WinCC Audit Yes • Simatric WincC Audit Yes • Mumber of Visual Basic Scripts Yes Task planner Yes • task-controlled Yes • task-controlled Yes • Number of characters per info text 70 Message system - • Number of alarm classes 32 • Bit messages 4000 • Analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System messages HMI Yes • Vumber of characters per mess	Project languages	
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Applications/options Yes • Web browser Yes • Pocket Word Yes • Pocket Excel Yes • Pocket Tixel Yes • Pocket Tixel Yes • Pocket Tixel Yes • Pocket Tixel Yes • Nedia Player Yes • Nedia Player Yes • SIMATIC WinCC Audit Yes Number of Visual Basic Scripts Yes Task planner Yes • line-controlled Yes • task-controlled Yes • Number of characters per info text 70 Message system 32 • Number of alam classes 32 • Bit messages 4000 • Analog messages 200 • Analog messages 200 • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 8 • Acknowledgment groups Yes • Number of characters per message 8 • Acknowledgment groups Yes <td>Functionality under WinCC (TIA Portal)</td> <td></td>	Functionality under WinCC (TIA Portal)	
Web browserYes• Pocket WordYes• Pocket ExcelYes• DFUP VewerYes• Media PlayerYes• SIMATIC WINCC Sm@nServerYes• SIMATIC WINCC Sm@nServerYes• SIMATIC WINCC Sm@nServerYes• SIMATIC WINCC AuditYesTask plannerYes• ime-controlledYes• task-controlledYes• task-controlledYes• Number of characters per info text70Message system70• Number of alarm classes32• Bit messages4000• Analog messages200• S7 alarm number procedureYes• System messages HMIYes• System messages HMIYes• System message HMIYes• System message HMIYes• System rot of process values per message80• Number of process values per message80• Number of process per message8• Akonvedragent groupsYes• Message indicatorYes• Mumber of entries1024• Circulating bufferYes• Message indicatorYes• Message indicatorYes• Message indicatorYes• Message indi	Libraries	Yes
Pocket WordYes• Pocket ExcelYes• PDF ViewerYes• Media PlayerYes• SIMATIC WinCC Sm@rtServerYes• SIMATIC WinCC AuditYes• Number of Visual Basic ScriptsYesTask plannerYes• lime-controlledYes• lime-controlledYes• Number of characters per info text70• Number of alarm classes32• Bit messages32• Ressage system32• Number of alarm classes32• Sind messages200• Aralog messages200• System number procedureYes• Number of alarm classes200• System messages HMIYes• Number of alarg messages200• System messages200• System messages HMIYes• Number of procedureYes• System message HMIYes• System message HMIYes• System message ItAIT CST, SINUMERIK, SIMOTION,)Yes• Number of process values per message8• Acknowledgment groupsYes• Acknowledgment groupsYes• Message bidferYes• Circulating bufferYes• Circulating bufferYes<	Applications/options	
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• Media PlayerYes• SIMATIC WinCC Sm@rtServerYes• SIMATIC WinCC AuditYes• Number of Visual Basic ScriptsYesTask planner*********************************		Yes
SIMATIC WinCC Sm@rtServerYesSIMATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask plannerYesitime-controlledYesitime-controlledYesHelp system70Number of characters per info text70Message system32Number of tailam classes32Bit messages4 000Analog messages200System messages200System messages HMIYesSystem messages HMIYesNumber of characters per message80Number of procesureYesMessage indicatorYesSystem or (SIMATIC S7, SINUMERIK, SiMOTION,)YesNumber of process values per message80Number of process per message80Number of process values per message8Acknowledgment groupsYesMessage bufferYesImage bufferYes <td></td> <td></td>		
• SIMATIC WinCC AuditYesNumber of Visual Basic ScriptsYesTask planner*********************************	-	
Number of Visual Basic Scripts Yes Task planner Yes • time-controlled Yes • task-controlled Yes Help system 70 Number of characters per info text 70 Message system 32 • Number of alarm classes 32 • Bit messages - - Number of bit messages 4 000 • Analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System messages HMI Yes • Number of process values per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Message buffer - - Number of entries 1024 - Circulating buffer Yes		
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• Number of characters per info text 70 Message system 32 • Number of alarm classes 32 • Bit messages 4 000 • Analog messages 4 000 • Analog messages 200 • Number of analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SINUMERIK, SINOTION,) Yes • Number of characters per message 80 • Number of characters per message 80 • Acknowledgment groups Yes • Message indicator Yes • Message buffer 1024 • Number of entries 1024 • Circulating buffer Yes		Tes
Message system Number of alarm classes 32 Bit messages 4 000 - Number of bit messages 4 000 Analog messages 200 - Number of analog messages 200 • S7 alarm number procedure Yes • System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Yes • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Message buffer 1024 - Circulating buffer Yes - netentive Yes		70
Number of alarm classes32Bit messages4 000- Number of bit messages4 000Analog messages200- 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 message80• Acknowledgment groupsYes• Message indicatorYes• Message buffer1024- Number of entries1 024- Circulating bufferYes- RentiveYes		70
Bit messages4 000- Number of bit messages4 000• Analog messages200- Number of analog messages200• S7 alarm number procedureYes• System messages HMIYes• System nevent, more (SIMATIC S7, SINUMERIK, SIMOTION,)Yes• Number of characters per message80• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Message bufferYes- Number of entries1024- Circulating bufferYes- retentiveYes		32
Number of bit messages4 000• Analog messages200 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 indicatorYes• Message bufferYes- Number of entries1 024- Circulating bufferYes- retentiveYes		52
Analog messages200- 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 characters per message80• Number of process values per messageYes• Number of process values per message80• Number of process values per message80• Number of process values per messageYes• Message indicatorYes• Mumber of entries1024• Circulating bufferYes• retentiveYes		4 000
- 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 indicatorYes- Number of entries1024- Circulating bufferYes- retentiveYes	-	1000
S7 alarm number procedureYesSystem messages HMIYesSystem event, more (SIMATIC S7, SINUMERIK, SIMOTION,)YesNumber of characters per message80Number of process values per message8Acknowledgment groupsYesMessage indicatorYesMumber of entries1024- Number of entries1024- Circulating bufferYes- retentiveYes		200
• 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• Message buffer1024- Number of entries1024- Circulating bufferYes- retentiveYes		
 System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Number of process values per message Acknowledgment groups Acknowledgment groups Yes Message indicator Yes Message buffer Number of entries 1024 Circulating buffer Yes Yes 		
SIMOTION,) 80 • Number of characters per message 80 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Message buffer 1024 - Number of entries 1024 - Circulating buffer Yes - retentive Yes		
• Number of process values per message8• Acknowledgment groupsYes• Message indicatorYes• Message buffer Number of entries1 024- Circulating bufferYes- retentiveYes		
• Acknowledgment groups Yes • Message indicator Yes • Message buffer 1024 - Number of entries 1024 - Circulating buffer Yes - retentive Yes	Number of characters per message	80
 Message indicator Message buffer Number of entries Circulating buffer retentive Yes 	Number of process values per message	8
Message buffer Number of entries Circulating buffer Yes Yes	 Acknowledgment groups 	Yes
Number of entries 1 024 Circulating buffer Yes retentive Yes	Message indicator	Yes
— Circulating buffer Yes — retentive Yes	Message buffer	
- retentive Yes	- Number of entries	1 024
	— Circulating buffer	Yes
maintenance-free Yes	- retentive	Yes
	maintenance-free	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	105
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	
Archiving methods	Vez
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	Vez
— 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
• 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	No
Stainless steel	Yes
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	64.215 mm
Weights	
Weight (without packaging)	1.9 kg
Weight (with packaging)	2 kg

last modified:

8/1/2024 🖸