## Data sheet

SIPLUS HMI TP700 COMFORT FOR medial stress with conformal coating based on 6AV2124-0GC01-0AX0



Figure similar

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
<ul> <li>Vertical image resolution</li> </ul>	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
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
• Direct keys (touch buttons as 37 input 1/0)	02
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without	35°
external ventilation	
Supply voltage	
Supply voltage  Type of supply voltage	DC
	DC 24 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC)	24 V 19.2 V
Type of supply voltage Rated value (DC)	24 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)	24 V 19.2 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC)	24 V 19.2 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Input current	24 V 19.2 V 28.8 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t	24 V 19.2 V 28.8 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t	24 V 19.2 V 28.8 V
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type  Memory	24 V 19.2 V 28.8 V 0.5 A 0.5 A <sup>2</sup> ·s
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type  Memory Flash	24 V 19.2 V 28.8 V  0.5 A 0.5 A <sup>2</sup> ·s  12 W  X86
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type  Memory Flash RAM Memory available for user data	24 V 19.2 V 28.8 V  0.5 A 0.5 A²-s  12 W  X86
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type  Memory Flash RAM Memory available for user data  Type of output	24 V 19.2 V 28.8 V  0.5 A 0.5 A 0.5 A <sup>2</sup> ·s  12 W  X86  Yes Yes 12 Mbyte
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC)  Input current Current consumption (rated value) Starting current inrush I²t  Power Active power input, typ.  Processor Processor type  Memory Flash RAM Memory available for user data	24 V 19.2 V 28.8 V  0.5 A 0.5 A²-s  12 W  X86

Error LED	No
Acoustics	
Buzzer	No
Speaker	Yes

## Time of day

## Clock

- Hardware clock (real-time)Software clockNo
- retentive Yes; Back-up duration typically 6 weeks
- synchronizable Yes

Interfaces	
Number of industrial Ethernet interfaces	2
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
<ul> <li>Number of ports of the integrated switch</li> </ul>	2

Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes; As of WinCC V12
PROFIBUS	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
WEB characteristics	
• HTTP	Yes
• HTTPS	No
• HTML	Yes

• VM	No
• XML	Yes
• CSS	
• Active X	No Van
JavaScript	Yes
• Java VM	No
Redundancy mode	V A (W) 00 V/0
• MRP	Yes; As of WinCC V12
Further protocols	N.
• CAN	No
EtherNet/IP	Yes
• MODBUS	Yes
EMC	
Emission of radio interference acc. to EN 55 011	
<ul> <li>Limit class A, for use in industrial areas</li> </ul>	Yes
<ul> <li>Limit class B, for use in residential areas</li> </ul>	No
Degree and class of protection	
IP (at the front)	IP65
Enclosure Type 4 at the front	Yes
Enclosure Type 4x at the front	Yes
IP (rear)	IP20
Ambient conditions	
Ambient conditions Suited for indoor use	Yes
Suited for indoor use Suited for outdoor use	Yes No
Suited for indoor use	
Suited for indoor use Suited for outdoor use	No
Suited for indoor use Suited for outdoor use Ambient temperature during operation	No  0 °C; = Tmin
Suited for indoor use Suited for outdoor use Ambient temperature during operation  • Operation (vertical installation)	No
Suited for indoor use Suited for outdoor use Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.	0 °C; = Tmin 50 °C; = Tmax
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.	No  0 °C; = Tmin  50 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)	0 °C; = Tmin 50 °C; = Tmax
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.	No  0 °C; = Tmin  50 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.	No  0 °C; = Tmin  50 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle, portrait format)	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle, portrait format)  — At maximum tilt angle, min.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 35 °C; = Tmax
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle, portrait format)  — At maximum tilt angle, min.  — At maximum tilt angle, min.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle, portrait format)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  Ambient temperature during storage/transportation  • min.  • max.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 35 °C; = Tmax
Suited for indoor use  Suited for outdoor use  Ambient temperature during operation  • Operation (vertical installation)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  • Operation (vertical installation, portrait format)  — For vertical installation, min.  — For vertical installation, max.  • Operation (max. tilt angle, portrait format)  — At maximum tilt angle, min.  — At maximum tilt angle, min.  Ambient temperature during storage/transportation  • min.	0 °C; = Tmin 50 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmax  0 °C; = Tmin 40 °C; = Tmin 35 °C; = Tmax

Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // • Ambient air temperature-barometric pressure-Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 altitude m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m) Relative humidity 100 %; RH incl. condensation/frost (no commissioning under With condensation, tested in accordance with condensation conditions) IEC 60068-2-38, max. Resistance Coolants and lubricants - Resistant to commercially available Yes; Incl. diesel and oil droplets in the air coolants and lubricants Use in stationary industrial systems Yes; Class 3B2 mold, fungus and dry rot spores (with the - to biologically active substances according exception of fauna); Class 3B3 on request to EN 60721-3-3 Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-— to chemically active substances according to EN 60721-3-3 52 (severity degree 3); \* Yes; Class 3S4 incl. sand, dust, \* — to mechanically active substances according to EN 60721-3-3 Use on ships/at sea - to biologically active substances according Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request to EN 60721-3-6 Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-— to chemically active substances according 52 (severity degree 3); \* to EN 60721-3-6 Yes; Class 6S3 incl. sand, dust; \* — to mechanically active substances according to EN 60721-3-6 Usage in industrial process technology - Against chemically active substances acc. Yes; Class 3 (excluding trichlorethylene) to EN 60654-4 Yes; Level GX group A/B (excluding trichlorethylene; harmful gas - Environmental conditions for process, concentrations up to the limits of EN 60721-3-3 class 3C4 measuring and control systems acc. to permissible); level LC3 (salt spray) and level LB3 (oil) ANSI/ISA-71.04 Remark \* The supplied plug covers must remain in place over the unused - Note regarding classification of interfaces during operation! environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 Conformal coating Yes; Class 2 for high availability Coatings for printed circuit board assemblies acc. to EN 61086 Yes; Type 1 protection • Protection against fouling acc. to EN 60664-3 Yes; Discoloration of coating possible during service life • Military testing according to MIL-I-46058C, Amendment 7 • Qualification and Performance of Electrical Yes; Conformal coating, Class A Insulating Compound for Printed Board Assemblies according to IPC-CC-830A

## Operating systems

pre-installed operating system         Yes           Configuration         Yes           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         No           • STEP 7 Basic (TIA Portal)         No           • WinCC flexible Compact         No           • WinCC flexible Standard         No           • WinCC Rexible Standard         No           • WinCC Bexible Advanced         No           • WinCC Conflort (TIA Portal)         Yes; from V11           • WinCC Conflort (TIA Portal)         Yes; from V11           • WinCC Professional (TIA Portal)         Yes; from V11           Languages         Police Indusers           Online languages         • No           • Number of online/runtime languages         32           Functionality under WinCC (TIA Portal)         Yes           Libraries         Yes           Applications/options         Yes           • Pocket Word         Yes           • Pocket Excel         Yes           • Pocket Wo	proprietary	No
Message indicator  Message indicator  Message indicator  Alarm system (incl. buffer and acknowledgment)  Process value display (output)  Process value default (input) possible  Recipe management  Process value default (input) possible  Process va	pre-installed operating system	
Message indicator	Windows CE	Yes
Message indicator	Configuration	
Alarm system (incl. buffer and acknowledgment) Process value display (output) Process value display (output) Process value default (input) possible Recipe management Pes Configuration software  • STEP 7 Basic (TIA Portal) • WinCC flexible Compact • WinCC flexible Standard • WinCC flexible Standard • WinCC flexible Standard • WinCC Basic (TIA Portal) • WinCC Compact • WinCC Basic (TIA Portal) • WinCC Abdanced • WinCC Oresional (TIA Portal) • WinCC Abdanced (TIA Portal) • WinCC Professional (TIA Portal) • WinCC Abdanced (TIA Portal)  Libraries • Languages • Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries • Yes  Applications/options • Web browser • Pocket Word • Pocket Word • Pocket Excel • PDF Viewer • Media Player • Media Player • SIMATIC WinCC Sm@rtServer • SIMATIC WinCC Addit • Yes  Number of Visual Basic Scripts  Task planner • ime-controlled • task-controlled • task-controlled • task-controlled • Tess • Number of characters per info text  70	*	Ves
Process value display (output) Process value default (input) possible Recipe management Ves  Recipe management  STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) WinCC flexible Compact WinCC flexible Compact WinCC flexible Advanced WinCC flexible Advanced WinCC Basic (TIA Portal) WinCC Gasible Advanced WinCC Gasible Advanced WinCC Gasible Advanced WinCC Gasible Advanced WinCC Omfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Professional (TIA Portal)  Ves; from V11  Languages  Polications/options Ves Languages Ves Project languages Ves  Project languages Ves  Project languages  Project languages Ves  Project languages		
Process value default (input) possible Recipe management Ves  Recipe management  Onfiguration software  STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) WinCC flexible Compact WinCC flexible Standard WinCC flexible Standard WinCC Basic (TIA Portal) WinCC Basic (TIA Portal) WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Advanced (TIA Portal) WinCC Advanced (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) Wes; from V11  Languages  Anguages  Anguages  Project languages  Ves  Project languages  Yes  Procket Word Yes Pocket Word Yes Pocket Word Pocket Excel PDF Viewer Web browser  Web browser  Web browser  Web browser  Web browser  Pocket Word  Pocket Excel PDF Viewer  Wes  SIMATIC WinCC Sm@rtServer  SIMATIC WinCC Sm@rtServer  Wes  SIMATIC WinCC Sm@rtServer  Wes  SIMATIC WinCC Sm@rtServer  Wes  SIMATIC WinCC SmigrtServer  Wincc SmigrtServer  Wes  SIMATIC		
Recipe management  Configuration software  STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Porta		
Configuration software  STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) STEP 7 STEP 7 Professional (TIA Portal) STEP 7 STEP		
STEP 7 Professional (TIA Portal)  WinCC flexible Compact  WinCC flexible Standard  WinCC flexible Advanced  WinCC Basic (TIA Portal)  WinCC Comfort (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Professional (TIA Portal)  Ves; from V11  Languages  Number of online/runtime languages  Number of online/runtime languages  Project languages  Applications/options  Web browser  Pocket Word  Pocket Word  Pocket Excel  Pocket Excel  POF Viewer  Media Player  Media Player  SIMATIC WinCC Sm@rtServer  SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  time-controlled  Yes  Help system  Number of characters per info text  70		No
WinCC flexible Compact WinCC flexible Standard WinCC flexible Standard WinCC flexible Advanced WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal)  Languages Online languages  Number of online/runtime languages  A summer of vinue/runtime languages  Project languages  Languages per project  S2  Functionality under WinCC (TIA Portal)  Libraries  Yes  Applications/options  Web browser  Pocket Word Yes Pocket Word Yes Pocket Excel PDF Viewer  Media Player Media Player  Media Player  SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled Yes  Help system Number of characters per info text  70		No
WinCC flexible Standard WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal)  WinCC Professional (TIA Portal)  WinCC Professional (TIA Portal)  Ves: from V11  Languages  Number of online/runtime languages  A purple languages  Languages per project  Yes  Applications/options Web browser Yes Pocket Word Yes Pocket Word Yes Pocket Excel PDF Viewer Media Player Media Player Media Player Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled Yes  Help system Number of characters per info text  Number of characters per info text  No		
WinCC flexible Advanced WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal)  Languages  Online languages Number of online/runtime languages Languages Languages Languages Languages Ves  Applications/options Web browser Pocket Word Pocket Excel PDF Viewer Media Player Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Number of Visual Basic Scripts  Task planner  Lime-controlled Ves Leip system Number of characters per info text	·	
WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal)  Ves; from V11  Languages Online languages Number of online/runtime languages Languages Languages Languages Languages Languages per project  Ves  Functionality under WinCC (TIA Portal)  Libraries Ves Applications/options Web browser Pocket Word Yes Pocket Word Yes Pocket Excel PDF Viewer Media Player Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Ves  Number of Visual Basic Scripts  Task planner  time-controlled Yes Help system Number of characters per info text  Number of characters per info text  70		
WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal)  Ves; from V11   Languages  Online languages  Number of online/runtime languages  Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries Yes  Applications/options Web browser Pocket Word Yes Pocket Word Pocket Excel PDF Viewer Media Player Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled Yes  Help system Number of characters per info text  Number of characters per info text  70		
WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) Yes; from V11   Languages  Online languages  Number of online/runtime languages  Number of online/runtime languages  Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries Yes  Applications/options  Web browser Pocket Word Yes Pocket Excel Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled Yes  Help system Number of characters per info text  Number of characters per info text	·	
WinCC Professional (TIA Portal)  Pes; from V11  Languages  Number of online/runtime languages  Number of online/runtime languages  Languages  Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries  Yes  Applications/options  Web browser  Pocket Word  Pocket Excel  PDF Viewer  Media Player  Media Player  SIMATIC WinCC Sm@rtServer  SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  time-controlled  Yes  Help system  Number of characters per info text  Yes; from V11  Yes  12  12  13  14  15  16  17  17  17  18  18  18  18  18  18  18	·	
Online languages  • Number of online/runtime languages  • Languages  • Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries  Applications/options  • Web browser  • Pocket Word  • Pocket Excel  • PDF Viewer  • Media Player  • Media Player  • SIMATIC WinCC Sm@rtServer  • SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  • time-controlled  • task-controlled  • task-controlled  • task-controlled  • Number of characters per info text  70	· · · · ·	
Online languages  • Number of online/runtime languages  • Languages  • Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries  Applications/options  • Web browser  • Pocket Word  • Pocket Excel  • PDF Viewer  • Media Player  • Media Player  • SIMATIC WinCC Sm@rtServer  • SIMATIC WinCC Audit  Number of Visual Basic Scripts  Task planner  • time-controlled  • task-controlled  • task-controlled  • Number of characters per info text  70	WinCC Professional (TIA Portal)	Yes; from V11
Number of online/runtime languages  Project languages  Languages per project  Ibraries  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  Help system  Number of characters per info text  Page  32  Project languages  32  32  32  32  32  32  32  32  32  3	Languages	
Project languages  • Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries  Applications/options  • Web browser  • Pocket Word  • Pocket Excel  • PoF Viewer  • Media Player  • SIMATIC WinCC Sm@rtServer  • SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  • time-controlled  • task-controlled  • task-controlled  • Number of characters per info text  70	Online languages	
■ Languages per project  Functionality under WinCC (TIA Portal)  Libraries  Applications/options      ■ Web browser     ■ Pocket Word     ■ Pocket Excel     ■ Pocket Excel     ■ PDF Viewer     ■ Media Player     ■ Media Player     ■ SIMATIC WinCC Sm@rtServer     ■ SIMATIC WinCC Audit     Yes  Number of Visual Basic Scripts  Task planner     ● time-controlled     ● task-controlled     ▼ Yes  Help system     ● Number of characters per info text  70	<ul> <li>Number of online/runtime languages</li> </ul>	32
Eibraries  Applications/options  Web browser  Pocket Word Pocket Excel PDF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled task-controlled Yes  Help system Number of characters per info text  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	Project languages	
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 Help system Number of characters per info text 70	<ul> <li>Languages per project</li> </ul>	32
Applications/options  • Web browser  • Pocket Word  • Pocket Excel  • Pocket Excel  • PDF Viewer  • Media Player  • SIMATIC WinCC Sm@rtServer  • SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  • time-controlled  • task-controlled  • task-controlled  • Number of characters per info text  70	Functionality under WinCC (TIA Portal)	
<ul> <li>Web browser</li> <li>Pocket Word</li> <li>Pocket Excel</li> <li>Yes</li> <li>PDF Viewer</li> <li>Media Player</li> <li>SIMATIC WinCC Sm@rtServer</li> <li>SIMATIC WinCC Audit</li> <li>Yes</li> <li>Number of Visual Basic Scripts</li> <li>Task planner</li> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>	Libraries	Yes
<ul> <li>Pocket Word</li> <li>Pocket Excel</li> <li>PDF Viewer</li> <li>Media Player</li> <li>SIMATIC WinCC Sm@rtServer</li> <li>SIMATIC WinCC Audit</li> <li>Yes</li> <li>Number of Visual Basic Scripts</li> <li>Task planner</li> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>	Applications/options	
Pocket Excel PDF Viewer Yes Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  Itime-controlled Yes  Help system Number of characters per info text  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	Web browser	Yes
<ul> <li>PDF Viewer</li> <li>Media Player</li> <li>SIMATIC WinCC Sm@rtServer</li> <li>SIMATIC WinCC Audit</li> <li>Yes</li> <li>Number of Visual Basic Scripts</li> <li>Task planner</li> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>	<ul><li>Pocket Word</li></ul>	Yes
<ul> <li>Media Player</li> <li>SIMATIC WinCC Sm@rtServer</li> <li>SIMATIC WinCC Audit</li> <li>Yes</li> <li>Number of Visual Basic Scripts</li> <li>Task planner</li> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>	Pocket Excel	Yes
SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts Yes  Task planner  time-controlled Yes  task-controlled Yes  Help system Number of characters per info text  70	PDF Viewer	Yes
SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts Yes  Task planner  • time-controlled Yes  • task-controlled Yes  Help system • Number of characters per info text  70	Media Player	Yes
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Task planner  • time-controlled Yes  • task-controlled Yes  Help system  • Number of characters per info text 70	SIMATIC WinCC Audit	Yes
<ul> <li>time-controlled</li> <li>task-controlled</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>	Number of Visual Basic Scripts	Yes
<ul> <li>time-controlled</li> <li>task-controlled</li> <li>Help system</li> <li>Number of characters per info text</li> <li>70</li> </ul>		
Help system  • Number of characters per info text  70		Yes
• Number of characters per info text 70	• task-controlled	Yes
• Number of characters per info text 70	Help system	
		70

<ul> <li>Number of alarm classes</li> </ul>	32
Bit messages	
<ul> <li>Number of bit messages</li> </ul>	4 000
Analog messages	
<ul> <li>Number of analog messages</li> </ul>	200
S7 alarm number procedure	Yes
System messages HMI	Yes
<ul> <li>System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)</li> </ul>	Yes
Number of characters per message	80
<ul> <li>Number of process values per message</li> </ul>	8
<ul> <li>Acknowledgment groups</li> </ul>	Yes
Message indicator	Yes
Message buffer	
— Number of entries	1 024
<ul> <li>Circulating buffer</li> </ul>	Yes
— retentive	Yes
— maintenance-free	Yes
Recipe management	
Number of recipes	300
Data records per recipe	500
<ul> <li>Entries per data record</li> </ul>	1 000
<ul> <li>Size of internal recipe memory</li> </ul>	2 Mbyte
<ul> <li>Recipe memory expandable</li> </ul>	Yes
Variables	
Number of variables per device	2 048
<ul> <li>Number of variables per screen</li> </ul>	400
Limit values	Yes
<ul><li>Multiplexing</li></ul>	Yes
• Structures	Yes
<ul><li>Arrays</li></ul>	Yes
Images	
Number of configurable images	500
<ul><li>Permanent window/default</li></ul>	Yes
Global image	Yes
<ul><li>Image selection by PLC</li></ul>	Yes
Image number in the PLC	Yes
Image objects	
<ul><li>Number of objects per image</li></ul>	400
<ul><li>Text fields</li></ul>	Yes
• I/O fields	Yes

<ul> <li>Graphic I/O fields (graphics list)</li> </ul>	Yes
<ul> <li>Symbolic I/O fields (text list)</li> </ul>	Yes
<ul> <li>Date/time fields</li> </ul>	Yes
<ul><li>Switches</li></ul>	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
<ul><li>Sm@rtClient view</li></ul>	Yes
Recipe view	Yes
• f(x) trend view	Yes
System diagnostics view	Yes
Media Player	Yes
Bar graphs	Yes
• Sliders	Yes
Pointer instruments	Yes
Analog/digital clock	Yes
Lists	
Number of text lists per project	500
<ul> <li>Number of entries per text list</li> </ul>	500
<ul> <li>Number of graphics lists per project</li> </ul>	500
<ul> <li>Number of entries per graphics list</li> </ul>	500
Archiving	
Number of archives per device	50
<ul> <li>Number of entries per archive</li> </ul>	20 000
Message archive	Yes
<ul> <li>Process value archive</li> </ul>	Yes
Archiving methods	
<ul> <li>Sequential archive</li> </ul>	Yes
— Short-term archive	Yes
<ul> <li>Memory location</li> </ul>	
— 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
<ul> <li>using external storage medium</li> </ul>	No
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	No; With WinCC, subsequent version
<ul> <li>Allen Bradley (EtherNet/IP)</li> </ul>	Yes
<ul><li>Allen Bradley (DF1)</li></ul>	Yes
Mitsubishi (MC TCP/IP)	Yes
Mitsubishi (FX)	Yes
• OMRON (FINS TCP)	No
<ul> <li>OMRON (LINK/Multilink)</li> </ul>	Yes
<ul> <li>Modicon (Modbus TCP/IP)</li> </ul>	Yes
<ul><li>Modicon (Modbus)</li></ul>	Yes
Service tools/configuration aids	
Backup/Restore manually	Yes

Backup/Restore automatically
 Simulation
 Device switchover
 Yes
 Yes

Peripherals/Options	
Peripherals	
Printer	Yes
<ul> <li>SIMATIC HMI MM memory card: Multi Media Card</li> </ul>	Yes
<ul> <li>SIMATIC HMI SD memory card: Secure Digital memory card</li> </ul>	Yes
• USB memory	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	197 mm
Mounting cutout, height	141 mm
Overall depth	63 mm

Weights	
Weight without packaging	1.4 kg
Weight incl. packaging	1.6 kg

**last modified:** 08/29/2019