6AV2124-0UC02-0AX1

## **Data sheet**



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)		
<ul> <li>Horizontal image resolution</li> </ul>	1 366 pixel	
Vertical image resolution	768 pixel	
Backlighting		
<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	50 000 h	
Backlight dimmable	Yes; 0-100 %	
Control elements		
Keyboard fonts		
Function keys		
<ul> <li>Number of function keys</li> </ul>	0	
<ul> <li>Number of function keys with LEDs</li> </ul>	0	
<ul> <li>Keys with LED</li> </ul>	No	
System keys	No	
<ul> <li>Numeric keyboard</li> </ul>	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 I²t	0.5 A <sup>2</sup> ·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	
	Yes
Hardware clock (real-time)     Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
	165
Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
Number of RS 485 interfaces  Number of RS 422 interfaces	1; RS 422 / 485 combined
	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	0 2
With software interfaces	No
	NO NO
Industrial Ethernet	2
<ul><li>Industrial Ethernet status LED</li><li>Number of ports of the integrated switch</li></ul>	3 2
	2
Protocols	V.
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
IRT	Yes
PROFIBUS Ethan Nation	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (Ethernet)	Von
TCP/IP DHCP	Yes Yes
• SNMP	Yes
• DCP	Yes
LLDP     WEB characteristics	Yes
HTTP	Yes
• HTTPS	Yes
• HTML	Yes
• XML	Yes
• XML • CSS	Yes
Active X	Yes
Active X     JavaScript	Yes
<ul><li>JavaScript</li><li>Java VM</li></ul>	No
♥ Java vivi	INU

Dadi vaden su see de	
Redundancy mode	
Media redundancy	Ves
— MRP	Yes
Further protocols	No
CAN     MODBUS	No Yes
	1 es
Interrupts/diagnostics/status information	
Diagnoses	Vec. C7 controller
Diagnostic information readable	Yes; S7 controller
EMC	
Emission of radio interference acc. to EN 55 011	Vee
Limit class A, for use in industrial areas     Limit class B, for use in residential areas	Yes
Limit class B, for use in residential areas	No
Degree and class of protection	IDOS
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	Von
Enclosure Type 4 at the front     Enclosure Type 4x at the front	Yes
Enclosure Type 4x at the front  Standard and appropriate contification.	Yes
Standards, approvals, certificates	V
CE mark	Yes
CULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)  Use in hazardous areas	Yes
ATEX Zone 2	Von
ATEX Zone 22      ATEX Zone 22	Yes 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	140; Available 30011
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)	
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All maximum till angle, max.	— At maximum tilt angle, min.	0 °C
Ambient lemperature during storagetransportation  min20 °C eminx. 60 °C  Relative humidity  • Operating systems proprietary proprietary  • Windows CE  • Windows CE  • Windows CE  • Windows Embedded Compact 2013  configuration / Hubdder  Message indicator  Alam system (rolb uffer and acknowledgment) Process value display (output) Process value default (input) possible  Recipe management  • STEP 7 Professional (TIA Portal)  • STEP 7 Professional (TIA Portal)  • WinCC Chasibe Standard  • WinCC Resibe Advanced  • WinCC Resibe Advanced  • WinCC Resibe Advanced  • WinCC Resibe Advanced  • WinCC Confird (TIA Portal)  • WinCC Confird (TIA Portal)  • WinCC Professional (TIA Port		
min.		
Relative humidity  Operation, max.  Operation, max.  Operation systems  Proprietary  No  pre-installed operating system  Windows CE  Configuration / header  Message indicator  Message		-20 °C
Relative humidity  Operation, max.  Operation, psystems proprietary proprietary proprietary  • Windows CE  Ves. Windows Embedded Compact 2013  configuration / hoader  Message indicator  Message indicator		
Operating systems proprietary		
Proprietary	-	90 %: no condensation
Proprietary	·	75, 110 0011001100110
pre-installed operating system  Windows CE  Ves; Windows Embedded Compact 2013  configuration / header  Message indicator  Alarm system (incl. buffer and acknowledgment)  Process value display (output)  Yes  Process value default (input) possible  Pess  Recipe management  STEP 7 Basic (TIA Portal)  WinCC flexible Compact  WinCC flexible Compact  WinCC flexible Compact  WinCC flexible Compact  WinCC flexible Nordand  WinCC flexible Nordand  WinCC flexible Nordand  WinCC Basic (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Professional (TIA Portal)  WinCC Professional (TIA Portal)  WinCC Professional (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Professional (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC Advanced (TIA Portal)  WinCC More Professional (TIA Portal)  WinCC WinCC More Professional (TIA Portal)  WinCC WinCC More Professional (TIA Portal)  WinCC More Professional (TI		No
Windows CE		NO
Message Indicator		Ves: Windows Embedded Compact 2013
Message indicator		103, Wildows Embedded Oompact 2010
Alarm system (incl. buffer and acknowledgment) Process value default (input) possible Process value default (input) possible Recipe management STEP 7 Professional (TIA Portal) STEP 7 Professional (TIA Portal) STEP 7 Professional (TIA Portal) VinicC flexible Compact VinicC flexible Standard VinicC flexible Standard VinicC Comfort (TIA Portal) VinicC Basic (TIA Portal) VinicC Comfort (TIA Portal) VinicC Professional (TIA Portal) Vinic VinicC Professional (TIA Portal) Vinic VinicC Professional (TIA Portal) Vinic VinicC Vinic		Vee
Process value display (output)   Yes		
Process value default (input) possible Recipe management Recipe management Professional (TIA Portal) STEP 7 Pasic (TIA Portal) STEP 7 Professional (TIA Portal) WinrCC flexible Compact WinrCC flexible Standard WinrCC flexible Standard WinrCC Cexible Advanced WinrCC Stasic (TIA Portal) WinrCC Comfort (TIA Portal) WinrCC Advanced (TIA Portal) WinrCC Advanced (TIA Portal) WinrCC Advanced (TIA Portal) WinrCC Professional (TIA Portal) WinrC Professional (TIA Portal) WinrCC Professional (TIA Portal) WinrC Professional (TIA Porta		
Recipe management		
STEP 7 Basis (TIA Portal)         No           STEP 7 Professional (TIA Portal)         No           • WinCC flexible Compact         No           • WinCC flexible Standard         No           • WinCC Basic (TIA Portal)         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         32           • Number of online/runtime languages         32           * Libraries         Yes           • Web browser         Yes           • Pocket Excel         Yes           • Pocket Excel         Yes           • PDF Viewer         Yes           • SIMATIC WinCC Sm@rtServer         Yes           • SIMATIC WinCC Audit         Yes           Number of visual Basic Scripts         Yes           Task planner         • time-controlled         Yes           • Bask-controlled         Yes           • Stalem mumber of oilt messages         6 000		
		res
		N-
WinCC flexible Compact WinCC flexible Standard WinCC flexible Advanced WinCC Basic (TIA Portal) WinCC Basic (TIA Portal) WinCC Advanced (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal)  Languages  Number of online/runtime languages  Languages Languages per project Languages Languages per project  Applications/options Web browser Yes Pocket Word Yes Pocket Word Yes Pocket Word Yes SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner Unine-controlled Yes Bit messages Wessage system Number of alarm classes Bit messages Whumber of bit messages Whumber of bit messages Whumber of politimessages Wesser west with a politime with the politimes with the poli		
WinCC flexible Advanced WinCC Basic (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal)  Languages Online languages  Number of online/runtime languages  Languages per project  22  Functionality under VinCC (TIA Portal)  Libraries Web browser Pocket Word Pocket Excel Pocket Excel Pore Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Addit Yes  Number of Visual Basic Scripts  Task planner  time-controlled Yes  Message system Number of alarm classes Analog messages Number of analog messages Analog messages Number of wessages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION) Number of characters per message  80		
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) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinCC Professional (TIA Portal) WinDC Professional (TIA Portal)  WinDC Professional (TIA Portal)  WinDC Vinder VinCC VincC Vinder VincC VincC Vinder VincC	·	
WinCC Basic (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)     Yes; V14 SP1 HSP and higher  Languages Online languages     Number of online/runtime languages     Number of online/runtime languages     Number of online/runtime languages     Number of online/runtime languages     Number of vice (TIA Portal)  Libraries  Applications/options     Web browser     Yes     Pocket Word     Yes     Pocket Excel     Yes     Pocket Excel     Yes     Number of Visual Basic Scripts  Task planner     itime-controlled     Yes  Message system  Number of alarm classes     Number of alarm classes     Number of alarm classes     Analog messages     Number of procedure     System event, more (SIMATIC ST, SINUMERIK, SIMOTION) Number of characters per message		
WinCC Comfort (TIA Portal) WinCC Advanced (TIA Portal) WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) Yes; V14 SP1 HSP and higher WinCC Professional (TIA Portal)  Languages Online languages  Number of online/runtime languages  Languages per project 32  Project languages Languages per project 32  Functionality under WinCC (TIA Portal)  Libraries Yes Applications/options  Web browser Yes Pocket Word Pocket Excel PDF Viewer SIMATIC WinCC Sm@rtServer SIMATIC WinCC Addit Yes  Number of Visual Basic Scripts  Task planner  itime-controlled Yes  Message system  Number of alarm classes Analog messages — Number of alarm classes System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION) Number of characters per message		
WinCC Advanced (TIA Portal) WinCC Professional (TIA Portal) Yes; V14 SP1 HSP and higher Yes; V14 SP1 HSP and higher  Indicator of contine anguages  Number of online/runtime languages  Number of online/runtime languages  I anguages per project Idurationality under WinCC (TIA Portal)  Libraries  Applications/options  Web browser Pocket Word Pocket Excel PoF Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Sm. Gertserver SIMATIC WinCC Audit  Number of Visual Basic Scripts  Task planner  Itime-controlled Yes  Message system  Number of alam classes Bit messages Number of alam classes Analog messages Number of analog messages Analog messages System event, more (SIMATIC ST, SINUMERIK, SIMOTION) Number of characters per message		
WinCC Professional (TIA Portal)  Languages Online languages  Number of online/runtime languages  Number of online/runtime languages  Languages  Languages  Languages  Languages  Libraries  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  Message system  Number of alarm classes  Analog messages  — Number of analog messages  Analog messages  System event, more (SIMATIC S7, SINUMERIK, SIMOTION)  Number of characters per message  Number of characters per message  Number of characters per message  80		
Languages   Online languages 32   Project languages 32   Libraries Yes   Applications/options Yes   • Veb browser Yes   • Pocket Word Yes   • Pocket Excel Yes   • PDF Viewer Yes   • SIMATIC WinCC Sm@rtServer Yes   • SIMATIC WinCc Audit Yes   Number of Visual Basic Scripts Yes   Task planner • time-controlled Yes   • time-controlled Yes   Message system • Number of alarm classes 32   Bit messages — Number of analog messages 6 000   • Analog messages — Number of analog messages 200   • S7 alarm number procedure Yes   • System messages HMI Yes   • Number of characters per message 80		
Online languages  • Number of online/runtime languages  32  Project languages  • Languages per project  32  Functionality under WinCC (TIA Portal)  Libraries  Applications/options  • Web browser  • Pocket Word  • Pocket Excel  • 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  — Number of bit messages  — Number of analog messages  — Number of analog messages  — System messages HMI  • System event, more (SIMATIC S7, SINUMERIK, SIMOTION))  • Number of characters per message  80	WinCC Professional (TIA Portal)	Yes; V14 SP1 HSP and higher
Number of online/runtime languages     Project languages	Languages	
Project languages  • Languages per project  Functionality under WinCC (TIA Portal)  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  • Number of bit messages  — Number of bit messages  — Number of analog messages  — Number of analog messages  • System messages HMI  • System event, more (SIMATIC S7, SINUMERIK, SIMOTION))  • Number of characters per message  80	Online languages	
Languages per project  Functionality under WinCC (TIA Portal)  Libraries Yes  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 alarm classes     • Bit messages     — Number of bit messages     • Analog messages     — Number of analog messages     • S7 alarm number procedure     • System messages HMI     • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)     • Number of characters per message     8	Number of online/runtime languages	32
Elibraries Applications/options  Web browser Pocket Word Pocket Excel Por Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Ves Number of Visual Basic Scripts  Task planner Sime-controlled Stak-controlled Stak-controlled To task-controlled Analog messages Analog messages Number of bit messages System Analog messages System System number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message  Yes Yes Yes Yes Yes Yes Yes O00 O00 Yes O00 Yes O00 Yes O00 Yes System messages HMI Yes System messages HMI Yes Number of characters per message		
Libraries  Applications/options  Web browser Pocket Word Pocket Excel Pocket Excel Pocket Excel Posket Excel		32
Applications/options  Web browser Pocket Word Pocket Excel Pocket Excel Pob Viewer Media Player SiMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes Number of Visual Basic Scripts  Task planner Ime-controlled Yes Stask-controlled Yes Message system Number of alarm classes Sit messages Number of bit messages Analog messages Number of analog messages System 0  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message 80	Functionality under WinCC (TIA Portal)	
Web browser Pocket Word Pocket Excel Pocket Excel Pob Viewer Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes Number of Visual Basic Scripts  Task planner Itime-controlled Stask-controlled Stask-controlled Yes Message system  Number of alarm classes Bit messages — Number of bit messages — Number of analog messages — Number of analog messages System essages — Number of analog messages  System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message  Number of characters per message  80	Libraries	Yes
Pocket Word Pocket Excel Pocke	Applications/options	
Pocket Excel PDF Viewer PDF Viewer Media Player Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  itme-controlled Yes task-controlled Yes  Message system  Number of alarm classes 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 characters per message  80	<ul> <li>Web browser</li> </ul>	Yes
PDF Viewer  Media Player  Media Player  SIMATIC WinCC Sm@rtServer  SIMATIC WinCC Audit  Yes  Number of Visual Basic Scripts  Task planner  Itime-controlled  Stask-controlled  Tess  Message system  Number of alarm classes  Number of bit messages  Number of bit messages  Analog messages  Number of analog messages  Number of analog messages  Stalarm number procedure  System messages HMI  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of characters per message  Number of characters per message  Number of characters per message	<ul> <li>Pocket Word</li> </ul>	Yes
Media Player SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  Itime-controlled Stask-controlled Stask-controll	Pocket Excel	Yes
SIMATIC WinCC Sm@rtServer SIMATIC WinCC Audit Yes  Number of Visual Basic Scripts  Task planner  time-controlled task-controlled Yes  Message system  Number of alarm classes Sit messages — Number of bit messages — Number of analog messages — Number of analog messages  Straiam number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message	<ul> <li>PDF Viewer</li> </ul>	Yes
SIMATIC WinCC Audit  Number of Visual Basic Scripts  Task planner  time-controlled task-controlled Yes  Message system  Number of alarm classes Sit messages  - Number of bit messages - Number of analog messages - Number of analog messages  Starm number procedure System messages HMI System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message	Media Player	Yes
Number of Visual Basic Scripts  Task planner  • time-controlled  • task-controlled  Yes  Message system  • Number of alarm classes  • Number of bit messages  — Number of bit messages  — Number of analog messages  — Number of analog messages  200  • S7 alarm number procedure  • System messages HMI  • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  • Number of characters per message  80	<ul> <li>SIMATIC WinCC Sm@rtServer</li> </ul>	Yes
Task planner  • time-controlled Yes  • task-controlled Yes  Message system  • Number of alarm classes 32  • Bit messages  — Number of bit messages 6 000  • Analog messages  — Number of analog messages 200  • S7 alarm number procedure Yes  • System messages HMI Yes  • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  • Number of characters per message 80	SIMATIC WinCC Audit	Yes
<ul> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> </ul> Message system <ul> <li>Number of alarm classes</li> <li>Bit messages</li> <li>Number of bit messages</li> <li>Analog messages</li> <li>Number of analog messages</li> <li>Yes</li> </ul> System number procedure <ul> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> </ul> 80	Number of Visual Basic Scripts	Yes
<ul> <li>task-controlled</li> <li>Message system</li> <li>Number of alarm classes</li> <li>Bit messages</li> <li>- Number of bit messages</li> <li>6 000</li> <li>Analog messages</li> <li>- Number of analog messages</li> <li>200</li> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>80</li> </ul>	Task planner	
Message system  Number of alarm classes Bit messages Number of bit messages Analog 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 80	• time-controlled	Yes
<ul> <li>Number of alarm classes</li> <li>Bit messages</li> <li>— Number of bit messages</li> <li>6 000</li> <li>Analog messages</li> <li>— Number of analog messages</li> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>80</li> </ul>	<ul><li>task-controlled</li></ul>	Yes
<ul> <li>Number of alarm classes</li> <li>Bit messages</li> <li>— Number of bit messages</li> <li>6 000</li> <li>Analog messages</li> <li>— Number of analog messages</li> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>80</li> </ul>	Message system	
<ul> <li>Number of bit messages</li> <li>Analog messages</li> <li>Number of analog messages</li> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> </ul>	Number of alarm classes	32
<ul> <li>Analog messages  — Number of analog messages </li> <li>S7 alarm number procedure </li> <li>System messages HMI </li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) </li> <li>Number of characters per message </li> </ul>	<ul> <li>Bit messages</li> </ul>	
<ul> <li>Analog messages  — Number of analog messages </li> <li>S7 alarm number procedure </li> <li>System messages HMI </li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) </li> <li>Number of characters per message </li> </ul>	<ul> <li>Number of bit messages</li> </ul>	6 000
<ul> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> </ul>		
<ul> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> </ul>	<ul> <li>Number of analog messages</li> </ul>	200
<ul> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> </ul>		Yes
<ul> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION, )</li> <li>Number of characters per message</li> </ul>	•	Yes
SIMOTION, )  • Number of characters per message 80		Yes
	<ul> <li>Number of characters per message</li> </ul>	80
<ul> <li>Number of process values per message</li> <li>8</li> </ul>	<ul> <li>Number of process values per message</li> </ul>	8
Acknowledgment groups     Yes	<ul> <li>Acknowledgment groups</li> </ul>	Yes
Message indicator     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 recipe memory	4 Mbyte
Recipe memory expandable	Yes
Variables	165
Number of variables per device	4 096
Number of variables per screen	400
Limit values	Yes
Multiplexing	Yes
Structures	Yes
• Arrays	Yes
Images	165
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 selection by TEC     Image number in the PLC	Yes
Image number in the PLC	100
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
<ul> <li>Alarm view</li> </ul>	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
· - · - · · · · · · · · · · · · · · · ·	
	Yes
IP camera display	Yes Yes
<ul><li>IP camera display</li><li>Bar graphs</li></ul>	Yes
<ul><li>IP camera display</li><li>Bar graphs</li><li>Sliders</li><li>Pointer instruments</li></ul>	Yes Yes
<ul><li>IP camera display</li><li>Bar graphs</li><li>Sliders</li></ul>	Yes Yes Yes
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul>	Yes Yes Yes
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists	Yes Yes Yes Yes
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists <ul> <li>Number of text lists per project</li> <li>Number of entries per text list</li> </ul>	Yes Yes Yes Yes Yes Yes
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists <ul> <li>Number of text lists per project</li> <li>Number of entries per text list</li> <li>Number of graphics lists per project</li> </ul>	Yes Yes Yes Yes Yes 500 500
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists <ul> <li>Number of text lists per project</li> <li>Number of entries per text list</li> </ul>	Yes Yes Yes Yes Yes Yes 500 500
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists <ul> <li>Number of text lists per project</li> <li>Number of entries per text list</li> <li>Number of graphics lists per project</li> <li>Number of entries per graphics list</li> </ul> Archiving	Yes Yes Yes Yes Yes Yes 500 500
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> </ul> Lists <ul> <li>Number of text lists per project</li> <li>Number of entries per text list</li> <li>Number of graphics lists per project</li> <li>Number of entries per graphics list</li> </ul>	Yes Yes Yes Yes Yes You Soo Soo Soo Soo Soo
<ul> <li>IP camera display</li> <li>Bar graphs</li> <li>Sliders</li> <li>Pointer instruments</li> <li>Analog/digital clock</li> <li>Lists</li> <li>Number of text lists per project</li> <li>Number of entries per text list</li> <li>Number of graphics lists per project</li> <li>Number of entries per graphics list</li> </ul> Archiving <ul> <li>Number of archives per device</li> </ul>	Yes Yes Yes Yes Yes  500 500 500 500

Process value archive	Vaa
Process value archive	Yes
Archiving methods	
— Sequential archive	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	
<ul> <li>Number of user groups</li> </ul>	50
<ul> <li>Number of user rights</li> </ul>	32
<ul> <li>Number of users</li> </ul>	50
<ul> <li>Password export/import</li> </ul>	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
<ul><li>SINUMERIK</li><li>SIMOTION</li></ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes
<ul><li>SINUMERIK</li><li>SIMOTION</li><li>Allen Bradley (EtherNet/IP)</li></ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes
<ul><li>SINUMERIK</li><li>SIMOTION</li><li>Allen Bradley (EtherNet/IP)</li><li>Allen Bradley (DF1)</li></ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes Yes No
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> </ul> Service tools/configuration aids <ul> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> <li>Device switchover</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> <li>Service tools/configuration aids</li> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> <li>Device switchover</li> </ul> Peripherals/Options	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> <li>Service tools/configuration aids</li> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> <li>Device switchover</li> <li>Peripherals/Options</li> <li>Printer</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes
<ul> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> <li>Mitsubishi (MC TCP/IP)</li> <li>Mitsubishi (FX)</li> <li>OMRON (FINS TCP)</li> <li>OMRON (LINK/Multilink)</li> <li>Modicon (Modbus TCP/IP)</li> <li>Modicon (Modbus)</li> <li>OPC UA Client</li> <li>OPC UA Server</li> <li>Service tools/configuration aids</li> <li>Backup/Restore manually</li> <li>Backup/Restore automatically</li> <li>Simulation</li> <li>Device switchover</li> <li>Peripherals/Options</li> <li>Printer</li> <li>SIMATIC HMI MM memory card: Multi Media Card</li> </ul>	Yes; With SINUMERIK option package as from WinCC V15 or higher Yes Yes Yes Yes Yes No Yes

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
<ul> <li>Aluminum</li> </ul>	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	75 mm
Weights	
Weight (without packaging)	5.6 kg

last modified: 10/7/2021 🖸