General information	
Product type designation	KP1200 Comfort
Display	TH 1200 COMPOR
Design of display	TFT
Screen diagonal	12.1 in
Display width	261.1 mm
Display height	163.2 mm
Number of colors	16 777 216
Resolution (pixels)	10 / / / 210
Horizontal image resolution	1 280 Pixel
Vertical image resolution	800 Pixel
Backlighting	500 Times
• MTBF backlighting (at 25 °C)	80 000 h
Backlight dimmable	Yes; 0-100 %
Control elements	,
Keyboard fonts	
• Function keys	
— Number of function keys	34
— Number of function keys with LEDs	34
• Keys with LED	Yes
• System keys	Yes
Numeric keyboard	Yes
• alphanumeric keyboard	Yes; similar to mobile phone
Touch operation	
Design as touch screen	No
Expansions for operator control of the process	
• DP direct LEDs (LEDs as S7 output I/O)	
— F1Fx	34
 Direct keys (keys as S7 input I/O) 	
— F1Fx	34
 Direct keys (touch buttons as S7 input I/O) 	0
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
. ,	

permissible range, upper limit (DC)	28.8 V
Input current	20.0 7
Current consumption (rated value)	0.85 A
Starting current inrush I ² t	0.5 A²⋅s
Power	
Active power input, typ.	20 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	Yes
Power LED	No
Error LED	No
Acoustics	
• Buzzer	No
• Speaker	Yes
Time of day	
Clock	
• Hardware clock (real-time)	Yes
	Yes
• Hardware clock (real-time)	
Hardware clock (real-time)Software clock	Yes Yes; Back-up duration typically 6
Hardware clock (real-time)Software clockretentive	Yes; Back-up duration typically 6 weeks
 Hardware clock (real-time) Software clock retentive synchronizable 	Yes; Back-up duration typically 6 weeks
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces 	Yes; Back-up duration typically 6 weeks Yes
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch)
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B Number of 20 mA interfaces (TTY) 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole 0
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B Number of 20 mA interfaces (TTY) Number of parallel interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole 0
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B Number of 20 mA interfaces (TTY) Number of other interfaces Number of SD card slots With software interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole 0 0
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B Number of 20 mA interfaces (TTY) Number of parallel interfaces Number of SD card slots With software interfaces Industrial Ethernet 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole 0 0 0 1
 Hardware clock (real-time) Software clock retentive synchronizable Interfaces Number of industrial Ethernet interfaces Number of RS 485 interfaces Number of RS 422 interfaces Number of RS 232 interfaces Number of USB interfaces USB Mini B Number of 20 mA interfaces (TTY) Number of other interfaces Number of SD card slots With software interfaces 	Yes; Back-up duration typically 6 weeks Yes 1; 2 ports (switch) 1; RS 422 / 485 combined 1 0 2; USB 2.0 1; 5-pole 0 0 0

PROFINET Yes Supports protocol for PROFINET IO Yes IRT Yes; As of WinCC V12 PROFIBUS Yes MPI Yes Protocols (Ethernet) Yes • TCP/IP Yes • DHCP Yes • SNMP Yes • DCP Yes • LLDP Yes ***BE characteristics** ***** • HTTP Yes • HTTPS Yes • HTTML Yes • ACTIVE X Yes </th <th>Protocols</th> <th></th>	Protocols	
RT	PROFINET	Yes
PROFIBUS Yes MPI Yes Protocols (Ethernet) Yes TCP/IP Yes DHCP Yes SNMP Yes DCP Yes LLDP Yes WEB characteristics WEB characteristics HTTP Yes HTTPS Yes HTML Yes HTML Yes CSS Yes Active X Yes JavaScript Yes Java VM No Redundancy mode Yes; As of WinCC V12 Further protocols Yes CAN No MRP Yes; As of WinCC V12 Further protocols Yes CAN No MODBUS Yes EMC Yes Emission of radio interference acc, to EN 55 011 Yes Limit class A, for use in inclustrial areas Yes Limit class A, for use in residential areas Yes Limit class of protection	Supports protocol for PROFINET IO	Yes
MPI Yes Protocols (Ethernet) Yes • TCP/IP Yes • DHCP Yes • SNMP Yes • DCP Yes • LLDP Yes WEB characteristics WES • HTTP Yes • HTTML Yes • HTML Yes • XMI. Yes • XMI. Yes • ACTIVE X Yes • JavaScript Yes • Java VM No Redundancy mode Yes; As of WinCC V12 • MRP Yes; As of WinCC V12 Further protocols Yes • CAN No • EtherNet/IP Yes • MODBUS Yes EMC Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas No • Limit class B, for use in inesidential areas No • Degree and class of protection PG5 Functiosure Type 4x at the front Yes IP (crear) <th< td=""><td>IRT</td><td>Yes; As of WinCC V12</td></th<>	IRT	Yes; As of WinCC V12
Protocols (Ethemet) • TCP/IP • DHCP DHCP SNMP SNMP Pes LLDP Yes LLDP WEB characteristics HTTP HTTP Yes HTTRS Yes HTML XML XML Yes CSS Active X JavaScript Java VM Redundancy mode MRP SHERMEN Yes; As of WinCC V12 Further protocols CAN CAN No EtherNet/IP MODBUS EtherNet/IP Limit class A, for use in industrial areas Limit class B, for use in residential areas Personal Canadards, approvals, certificates Enclosure Type 4 at the front IP (rear) EtherNet/IP Pes CE mark CE mark CE mark CULus Yes CCLUus Yes CCLUUS Yes Pes CES Yes Yes Pes CES CES Yes Pes CES Yes CES Yes CES Yes CES Yes CES Yes CES CES CES CES CES CES CES CE	PROFIBUS	Yes
● TCP/IP Yes ● DHCP Yes ● SNMP Yes ● DCP Yes ● LLDP Yes WEB characteristics ● HTTP Yes ● HTTP Yes ● HTML Yes ● HTML Yes ● HTML Yes ● XML Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode Yes; As of WinCC V12 ● WRP Yes; As of WinCC V12 Further protocols O. ● CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC Yes EMC Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas Yes ● Limit class B, for use in residential areas No Degree and class of protection IPG5 Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes	MPI	Yes
● DHCP Yes ● DCP Yes ● LLDP Yes WEB characteristics ● HTTP Yes ● HTTPS Yes ● HTML Yes ● XML Yes ● XML Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode ● MRP Yes; As of WinCC V12 Further protocols ○ CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC Yes Emission of radio interference acc. to EN 55 011 Yes ● Limit class A, for use in industrial areas No Degree and class of protection IP (at the front) IP (at the front) IP65 Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes <t< td=""><td>Protocols (Ethernet)</td><td></td></t<>	Protocols (Ethernet)	
• SNMP Yes • DCP Yes • LLDP Yes WEB characteristics • HTTP Yes • HTTPS Yes • HTML Yes • XML Yes • XML Yes • Active X Yes • JavaScript Yes • Java VM No Redundancy mode Yes; As of WinCC V12 • MRP Yes; As of WinCC V12 Further protocols Yes • CAN No • EtherNet/IP Yes • MODBUS Yes • MC Yes • Limit class A, for use in industrial areas No • Limit class B, for use in industrial areas No • Limit class B, for use in residential areas No • Limit class B, for use in residential areas Yes • Limit class A, for use in industrial areas No • Limit class B, for use in residential areas Yes • Limit class B, for use in residential areas No • CE mark	• TCP/IP	Yes
● DCP Yes ▶ LLDP Yes ₩EB characteristics Yes ● HTTP Yes ● HTTPS Yes ● HTML Yes • XML Yes • CSS Yes • Active X Yes • Java Script Yes • Java VM No Redundancy mode Yes; As of WinCC V12 • MRP Yes; As of WinCC V12 Further protocols Yes • CAN No • EtherNet/IP Yes • MODBUS Yes EMC Yes Emission of radio interference acc. to EN 55 011 Ves • Limit class A, for use in industrial areas No • Limit class B, for use in residential areas No • Limit class B, for use in residential areas Yes • Limit class B, for use in industrial areas No • Limit class B, for use in residential areas Yes • Limit class B, for use in residential areas No • Limit class B, for use in residential areas Yes	• DHCP	Yes
● LLDP Yes WEB characteristics ● HTTP Yes ● HTTPS Yes ● HTML Yes ● XML Yes ● XML Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode Yes; As of WinCC V12 ● MRP Yes; As of WinCC V12 Further protocols Yes ● CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC Yes Emission of radio interference acc. to EN 55 011 Yes ● Limit class A, for use in industrial areas No Degree and class of protection IP IP (at the front) IP65 Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes CULus Yes RCM (formerly C-TICK) Yes	• SNMP	Yes
WEB characteristics ● HTTP Yes ● HTTPS Yes ● HTML Yes ● XML Yes ● XML Yes ● CSS Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode Yes; As of WinCC V12 ● MRP Yes; As of WinCC V12 Further protocols Yes ● CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC Yes Emission of radio interference acc. to EN 55 011 Yes ● Limit class A, for use in industrial areas Yes ● Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP65 Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes CULus Yes RCM (formerly C-TICK) Yes <td>• DCP</td> <td>Yes</td>	• DCP	Yes
 ● HTTP ● HTTPS ● Yes ● HTML ● Yes ● XML ● XML ● CSS ● Active X ● JavaScript ● Java VM ● MRP ● MRP ● CAN ● CAN ● EtherNet/IP ● MODBUS ● EMC Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas ● Limit class B, for use in residential areas Pogere and class of protection IP (at the front) IP (at the front) Enclosure Type 4 at the front IP (rear) Standards, approvals, certificates CE mark Ves CE mark Ves CE mark CE mark CF mark CF mark CF mark CF mere Yes CF mark CF mark CF mark CF mere CF mere CF mere CF mark CF mere ME S CF mere MERE M	• LLDP	Yes
● HTTPS Yes ● HTML Yes ● XML Yes ● CSS Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode *** Yes, As of WinCC V12 Eurther protocols ● CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC *** Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas Yes ● Limit class B, for use in industrial areas No Degree and class of protection IP65 IP (at the front) IP65 Enclosure Type 4 at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes cULus Yes RCM (formerly C-TICK) Yes	WEB characteristics	
● HTML Yes ● XML Yes ● CSS Yes ● Active X Yes ● JavaScript Yes ● Java VM No Redundancy mode ● MRP Yes; As of WinCC V12 Further protocols ● CAN No ● EtherNet/IP Yes ● MODBUS Yes EMC Yes Limit class A, for use in industrial areas Yes ● Limit class B, for use in residential areas No Degree and class of protection IP65 Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes cULus Yes RCM (formerly C-TICK) Yes	• HTTP	Yes
• XML Yes • Active X Yes • JavaScript Yes • Java VM No • MRP Yes; As of WinCC V12 Further protocols Ves • CAN No • EtherNet/IP Yes • MODBUS Yes EMC Yes Emission of radio interference acc. to EN 55 011 Yes • Limit class A, for use in industrial areas Yes • Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP (at the front) IP65 Enclosure Type 4 at the front Yes IP (rear) IP20 Standards, approvals, certificates Yes CE mark Yes cULus Yes RCM (formerly C-TICK) Yes	• HTTPS	Yes
 CSS Active X JavaScript Java VM No Redundancy mode MRP Yes; As of WinCC V12 Further protocols CAN EtherNet/IP MODBUS Yes MODBUS Yes EMC Emission of radio interference acc. to EN 55 011 Limit class A, for use in industrial areas Limit class B, for use in residential areas Limit class of protection IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP20 Standards, approvals, certificates CE mark Ves CULus Yes RCM (formerly C-TICK) Yes 	• HTML	Yes
● Active X ● Java Script ● Java VM No Redundancy mode ● MRP ● Yes; As of WinCC V12 Further protocols ● CAN ● EtherNet/IP ● MODBUS EMC Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas ● Limit class B, for use in residential areas ● Limit class of protection IP (at the front) Enclosure Type 4 at the front Enclosure Type 4 at the front Yes IP (rear) Standards, approvals, certificates CE mark cULus Redundancy Yes RCM (formerly C-TICK) Pess Pess Pess Pess RCM (formerly C-TICK) Pess Pess Pess Pyes Pyes RCM (formerly C-TICK) Pess Pess Pess Pyes Pyes RCM (formerly C-TICK)	• XML	Yes
● Java VM ● Java VM Redundancy mode ● MRP ● Yes; As of WinCC V12 Further protocols ● CAN ● CAN ● EtherNet/IP ● MODBUS EMC Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas ● Limit class B, for use in residential areas Pegree and class of protection IP (at the front) Enclosure Type 4 at the front Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus Redundancy No No No Pegree Peg	• CSS	Yes
● Java VM Redundancy mode ● MRP Yes; As of WinCC V12 Further protocols ● CAN No ● EtherNet/IP Yes ● MODBUS EMC Emission of radio interference acc. to EN 55 011 ● Limit class A, for use in industrial areas Pegree and class of protection IP (at the front) IP (at the front) IP (at the front) IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) No No No No No No No No Pes Yes No IP20 Standards, approvals, certificates CE mark Ves RCM (formerly C-TICK) Yes RCM (formerly C-TICK)	• Active X	Yes
Redundancy mode◆ MRPYes; As of WinCC V12Further protocols◆ CANNo● EtherNet/IPYes◆ MODBUSYesEMCTemission of radio interference acc. to EN 55 011◆ Limit class A, for use in industrial areasYes◆ Limit class B, for use in residential areasNoDegree and class of protectionIP65IP (at the front)IP65Enclosure Type 4 at the frontYesEnclosure Type 4x at the frontYesIP (rear)IP20Standards, approvals, certificatesYesCE markYesCULusYesRCM (formerly C-TICK)Yes	• JavaScript	Yes
 MRP Further protocols CAN No EtherNet/IP Yes MODBUS Yes EMC Emission of radio interference acc. to EN 55 011 Limit class A, for use in industrial areas Ves Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP (at the front) IP (at the front) IP (rear) IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) 	• Java VM	No
Further protocols	Redundancy mode	
 ◆ CAN ◆ EtherNet/IP ◆ MODBUS ★ MODBUS ★ Yes ★ EMC ★ Limit class A, for use in industrial areas ◆ Limit class B, for use in residential areas ♦ Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates CE mark Yes CULus Yes RCM (formerly C-TICK) Yes 		Yes; As of WinCC V12
 EtherNet/IP Yes MODBUS Yes EMC Emission of radio interference acc. to EN 55 011 Limit class A, for use in industrial areas Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP65 Enclosure Type 4 at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) 	_	
 MODBUS EMC Emission of radio interference acc. to EN 55 011 Limit class A, for use in industrial areas Limit class B, for use in residential areas 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) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) Yes 	• CAN	No
EMC Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas Yes • Limit class B, for use in residential areas No Degree and class of protection IP (at the front) IP65 Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) IP20 Standards, approvals, certificates CE mark Yes CULus Yes RCM (formerly C-TICK) Yes	• EtherNet/IP	Yes
Emission of radio interference acc. to EN 55 011	• MODBUS	Yes
 Limit class A, for use in industrial areas Limit class B, for use in residential areas No Degree and class of protection IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) Yes 		
 ◆ Limit class B, for use in residential areas Degree and class of protection IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) No Yes Yes Yes Yes 		
Degree and class of protection IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) Yes		
IP (at the front) Enclosure Type 4 at the front Yes Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) IP65 Yes Yes Yes		No
Enclosure Type 4 at the front Enclosure Type 4x at the front Yes IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) Yes Yes		
Enclosure Type 4x at the front IP (rear) Standards, approvals, certificates CE mark CULus RCM (formerly C-TICK) Yes Yes		
IP (rear) IP20 Standards, approvals, certificates CE mark Yes cULus Yes RCM (formerly C-TICK) Yes	Enclosure Type 4 at the front	Yes
Standards, approvals, certificates CE mark CULus Yes RCM (formerly C-TICK) Yes	Enclosure Type 4x at the front	Yes
CE mark Yes cULus Yes RCM (formerly C-TICK) Yes	IP (rear)	IP20
cULus Yes RCM (formerly C-TICK) Yes		
RCM (formerly C-TICK) Yes	CE mark	Yes
· · · · · · · · · · · · · · · · · · ·	cULus	Yes
KC approval Yes	RCM (formerly C-TICK)	Yes
	KC approval	Yes

Use in hazardous areas	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• IECEx Zone 2	Yes
• IECEx Zone 22	Yes
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes
• FM Class I Division 2	Yes
Marine approval	
• Germanischer Lloyd (GL)	Yes; As of product version: 10
 American Bureau of Shipping (ABS) 	Yes; As of product version: 10
• Bureau Veritas (BV)	Yes; As of product version: 10
• Det Norske Veritas (DNV)	Yes; As of product version: 10
 Lloyds Register of Shipping (LRS) 	Yes; As of product version: 10
 Nippon Kaiji Kyokai (Class NK) 	Yes; As of product version: 10
 Polski Rejestr Statkow (PRS) 	No
Ambient conditions	
Ambient temperature during operation	
 Operation (vertical installation) 	
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)
 Operation (max. tilt angle) 	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	40 °C
 Operation (vertical installation, portrait format) 	
— For vertical installation, min.	0 °C
— For vertical installation, max.	40 °C
 Operation (max. tilt angle, portrait format) 	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	35 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
 Operation, max. 	90 %; no condensation
Operating systems	
proprietary	No
pre-installed operating system	
• Windows CE	Yes
Configuration	
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	100
• STEP 7 Basic (TIA Portal)	No
• STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
• WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
• WinCC Professional (TIA Portal)	Yes; from V11
Languages	
Online languages	
 Number of online/runtime languages 	32
Project languages	
• Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	
• Web browser	Yes
Pocket Word	Yes
Pocket Excel	Yes
• PDF Viewer	Yes
Media Player	Yes
 SIMATIC WinCC Sm@rtServer 	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
• time-controlled	Yes
• task-controlled	Yes
Help system	
 Number of characters per info text 	70
Message system	
• Number of alarm classes	32
• Bit messages	
— Number of bit messages	4 000
 Analog messages 	
— Number of analog messages	200

• S7 alarm number procedure	Yes
• System messages HMI	Yes
• System messages, other (SIMATIC S7, Sinumerik, Simotion,	
etc.)	Yes
Number of characters per message	80
 Number of process values per message 	8
Acknowledgment groups	Yes
Message indicator	Yes
Message buffer	
— Number of entries	1 024
— Circulating buffer	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	
 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	100
Number of complex objects per screen	20
• Alarm view	Yes
• Trend view	Yes
• User view	Yes
• Status/control	Yes
• Sm@rtClient view	Yes
• Recipe view	Yes
• f(x) trend view	Yes
System diagnostics view	Yes
Media Player	Yes
• HTML browser	Yes
• PDF display	Yes
• IP camera display	Yes
Bar graphs	Yes
• Sliders	Yes
• Pointer instruments	Yes
Analog/digital clock	Yes
Lists	
 Number of text lists per project 	500
 Number of entries per text list 	500
 Number of graphics lists per project 	500
Number of entries per graphics list	500
Archiving	
Number of archives per device	50
Number of entries per archive	20 000
Message archive	Yes
Process value archive	Yes
• Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	
— Memory card	Yes
— USB memory	Yes
— Ethernet	Yes
Data storage format	

— CSV	Yes
— TXT	Yes
— RDB	Yes
Security	100
Number of user groups	50
Number of user rights	32
• Number of users	50
Password export/import	Yes
• SIMATIC Logon	Yes
Logging through printer	100
• 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
SINOWERIK	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	
Peripherals	
• Printer	Yes
• SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB
• SIMATIC HMI SD memory card: Secure Digital memory car	d Yes; Up to 2 GB
 SIMATIC HMI CF memory card Compact Flash Card 	No
• USB memory	Yes
• SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
• SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	
• Plastic	No
• Aluminum	Yes
• Stainless steel	No
Dimensions	
Width of the housing front	454 mm
Height of housing front	289 mm
Mounting cutout, width	434 mm
Mounting cutout, height	269 mm
Overall depth	65 mm
Weights	
Weight without packaging	4.4 kg
Weight incl. packaging	5.7 kg