## **SIEMENS**

## **Data sheet**





Product type designation KP700 Comfort  Display  Design of display  TFT  Screen diagonal Tip  Display width Sissa Hum  Display height Sissa Hum  Backlighting Sissa Hum  Sissa Hum  Backlighting Sissa Hum  Sissa Hum  Backlighting (at 25 °C) Backlight dimmable Ves; 0-100 %  Control elements  Keyboard fonts  Function keys Number of function keys System keys Ves Number of function keys with LEDs Yes System keys Ves System keys Ves Numeric keyboard Yes; similar to mobile phone  Touch operation Design as touch screen No; without  Expansions for operator control of the process Direct LEDs (LEDs as S7 output I/O) FilFX Direct keys (keys as S7 input I/O) FilFX Direct keys (keys as S7 input I/O) FilFX Direct keys (keys as S7 input I/O) Unstallation typo/mounting Mounting position Wull mounting/direct mounting No Mounting in portrait format possible Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting in portrait format possible Moun	General information	
Design of display	Product type designation	KP700 Comfort
Screen diagonal   7 in	Display	
Display width Display height Display	Design of display	TFT
Display height Number of colors Resolution (pixels)  Horizontal image resolution  Vertical image resolution  Number of vertical image resolution  Number of vertical image resolution  Number of sucklighting  Mumber of function keys  Neyboard fonts  Function keys  Number of function keys with LEDs  System keys  Number of function keys with LEDs  System keys  Number of vertical yes  Now without  Now without  Now without  Design as touch screen  No; without  Expansions for operator control of the process  Defined LEDs (LEDs as S7 output I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (keys as S7 input I/O)  Onstallation type/mounting  Mounting position  Mounting position  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external  vertical  Mounting maximum permissible angle of inclination without external  vertical  Mounting maximum permissible angle of inclination without external  vertical  Mounting maximum permissible angle of inclination without external  vertical  Mounting maximum permissible angle of inclination without external  vertical	Screen diagonal	7 in
Number of colors   16 777 216	Display width	152.4 mm
Resolution (pixels)  • Horizontal image resolution • Vertical image resolution • Vertical image resolution • Vertical image resolution  800 pixel  480 pixel  8acklighting  • MTBF backlighting (at 25 °C) • 80 000 h • Backlight dimmable  Control elements  Keyboard fonts  • Function keys  — Number of function keys — Number of function keys with LEDs 24 • Keys with LED Yes • System keys • Numeric keyboard Yes • Numeric keyboard Yes • alphanumeric keyboard Yes; similar to mobile phone  Touch operation • Design as touch screen  No; without  Expansions for operator control of the process • DP direct LEDs (LEDs as S7 output I/O) — F1FX Direct keys (keys as S7 input I/O)  — F1FX • Direct keys (touch buttons as S7 input I/O) 0  Installation type/mounting  Mounting position  Wall mounting/direct mounting  No  Mounting in portrait format possible Mounting in landscape format possible Mounting permissible angle of inclination without external ventilation	Display height	91.4 mm
Horizontal image resolution Vertical image resolution  NTBF backlighting (at 25 °C) Backlighting (at 25 °C) Backlighting (at 25 °C) Backlight dimmable Yes; 0-100 %  Control elements  Keyboard fonts  Function keys Number of function keys Number of function keys with LEDs System keys Numeric keyboard System keys Numeric keyboard Yes System keys Numeric keyboard Yes; similar to mobile phone  Touch operation  Design as touch screen  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  —F1FX Direct keys (keys as S7 input I/O)  —F1FX Direct keys (touch buttons as S7 input I/O)  —F1FX Noticel keys (touch buttons as S7 input I/O)  Noticel Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation  8000 h  80000 h  80000 h  800000 h  80000000000	Number of colors	16 777 216
Vertical image resolution  Backlighting  MTBF backlighting (at 25 °C) 80 000 h Backlight dimmable  Ves; 0-100 %  Control elements  Keyboard fonts  Function keys  Number of function keys  Number of function keys 24  Number of function keys 49  Keys with LED Yes  System keys  Numeric keyboard Yes  Numeric keyboard Yes; similar to mobile phone  Touch operation  Design as touch screen No; without  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  Wall mounting position vertical  Mounting in portrait format possible No  Mounting in landscape format possible Yes  maximum permissible angle of inclination without external ventilation  Pinns A 80 000 h  Ves; 0-100 %  80 000 h  Ves; 0-100 %  24  44  40  40  40  40  40  40  40  40	Resolution (pixels)	
Backlighting  MTBF backlighting (at 25 °C) Backlight dimmable Yes; 0-100 %  Control elements  Keyboard fonts  Function keys Number of function keys Number of function keys with LEDs Keys with LED Yes System keys Numeric keyboard Alphanumeric keyboard Pess; similar to mobile phone  Touch operation Design as touch screen No; without  Expansions for operator control of the process DP direct LEDs (LEDs as S7 output I/O) F1Fx Direct keys (keys as S7 input I/O) F1Fx Direct keys (touch buttons as S7 input I/O) Mounting position Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation  No	<ul> <li>Horizontal image resolution</li> </ul>	800 pixel
MTBF backlighting (at 25 °C) Backlight dimmable Yes; 0-100 %  Control elements  Keyboard fonts  Function keys  Number of function keys  Number of function keys with LEDs Keys with LED Yes System keys Numeric keyboard Alphanumeric keyboard Pesign as touch screen  Expansions for operator control of the process  De direct LEDs (LEDs as S7 output I/O)  F1Fx Direct keys (keys as S7 input I/O)  F1Fx Direct keys (touch buttons as S7 input I/O)  Not stallation type/mounting  Mounting position  Mounting position  Not  Mounting in landscape format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation  Ness O-100 %  Les; 0-100 %  Ses; 0-100 %  Yes  24  Les; 0-100 %  Not  Not  Not  Not  Not  Mounting in landscape format possible Maximum permissible angle of inclination without external ventilation  Not  Mounting permissible angle of inclination without external ventilation  Not  Mounting permissible angle of inclination without external ventilation  Maximum permissible angle of inclination without external ventilation	Vertical image resolution	480 pixel
Backlight dimmable  Control elements  Keyboard fonts  Function keys  Number of function keys  Keys with LED  Keys with LED  Keys with LED  System keys  Numeric keyboard  Alphanumeric keyboard  Design as touch screen  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  F1Fx  Mounting position  Vertical  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in landscape format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait		
Keyboard fonts  Function keys  Number of function keys  Number of function keys with LEDs  Keys with LED  Keys with LED  Yes  System keys  Numeric keyboard  Alphanumeric keyboard  Design as touch screen  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  No; without  Installation type/mounting  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait format possible  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in portrait for	<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	80 000 h
Function keys		Yes; 0-100 %
Function keys  Number of function keys  Number of function keys with LEDs  Keys with LED  Nesses Yes  Numeric keyboard  Indicate the process  Poperator control of the process  Design as touch screen  No; without  Expansions for operator control of the process  Design as touch screen  No; without  Expansions for operator control of the process  Design as touch screen  FiFx  Direct keys (keys as S7 input I/O)  FiFx  Direct keys (keys as S7 input I/O)  FiFx  Direct keys (touch buttons as S7 input I/O)  No  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation	Control elements	
Number of function keys 24 Number of function keys with LEDs 24 Keys with LED Yes System keys Yes Numeric keyboard Yes Alphanumeric keyboard Yes; similar to mobile phone  Touch operation Design as touch screen No; without  Expansions for operator control of the process DP direct LEDs (LEDs as S7 output I/O) F1Fx 24 Direct keys (keys as S7 input I/O) F1Fx 24 Direct keys (touch buttons as S7 input I/O) F1Fx 24 Direct keys (touch buttons as S7 input I/O) F1Fx 10 No Munting position Vertical Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Maximum permissible angle of inclination without external ventilation	Keyboard fonts	
- Number of function keys with LEDs  • Keys with LED  • System keys  • Numeric keyboard  • alphanumeric keyboard  • Design as touch screen  • Design as touch screen  Expansions for operator control of the process  • DP direct LEDs (LEDs as S7 output I/O)  — F1Fx  • Direct keys (keys as S7 input I/O)  — F1Fx  • Direct keys (touch buttons as S7 input I/O)  0 Installation type/mounting  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation	<ul><li>Function keys</li></ul>	
Keys with LED     System keys     Numeric keyboard     Yes     Numeric keyboard     Yes; similar to mobile phone  Touch operation     Design as touch screen     No; without  Expansions for operator control of the process     DP direct LEDs (LEDs as S7 output I/O)     —F1Fx     24     Direct keys (keys as S7 input I/O)     —F1Fx     24     Direct keys (touch buttons as S7 input I/O)     0  Installation type/mounting  Mounting position     Wall mounting/direct mounting     Mounting in portrait format possible     Mounting in landscape format possible     Mounting in landscape format possible     maximum permissible angle of inclination without external ventilation	<ul> <li>Number of function keys</li> </ul>	24
System keys Numeric keyboard Alphanumeric keyboard Alphanumeric keyboard Yes; similar to mobile phone  Touch operation Design as touch screen No; without  Expansions for operator control of the process DP direct LEDs (LEDs as S7 output I/O) F1Fx Direct keys (keys as S7 input I/O) F1Fx Direct keys (keys as S7 input I/O) F1Fx Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position Vertical Wall mounting/direct mounting No Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting vertical Ves Maximum permissible angle of inclination without external ventilation  Yes	<ul> <li>Number of function keys with LEDs</li> </ul>	24
Numeric keyboard  alphanumeric keyboard  Yes; similar to mobile phone  Touch operation  Design as touch screen  No; without  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  F1Fx  Direct keys (keys as S7 input I/O)  F1Fx  Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  Mounting maximum permissible angle of inclination without external ventilation  Yes  Mounting in possible angle of inclination without external ventilation	<ul> <li>Keys with LED</li> </ul>	Yes
<ul> <li>alphanumeric keyboard</li> <li>Touch operation</li> <li>Design as touch screen</li> <li>No; without</li> </ul> Expansions for operator control of the process <ul> <li>DP direct LEDs (LEDs as S7 output I/O)</li> <li>-F1Fx</li> <li>Direct keys (keys as S7 input I/O)</li> <li>-F1Fx</li> <li>Direct keys (touch buttons as S7 input I/O)</li> <li>0</li> </ul> Installation type/mounting Mounting position <ul> <li>Wall mounting/direct mounting</li> <li>Mo</li> <li>Mounting in portrait format possible</li> <li>Mo</li> <li>Mounting in landscape format possible</li> <li>maximum permissible angle of inclination without external ventilation</li> </ul>	<ul> <li>System keys</li> </ul>	Yes
Touch operation  Design as touch screen  No; without  Expansions for operator control of the process  DP direct LEDs (LEDs as S7 output I/O)  —F1Fx  Direct keys (keys as S7 input I/O)  —F1Fx  Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Vertical  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation	<ul> <li>Numeric keyboard</li> </ul>	Yes
Design as touch screen     No; without  Expansions for operator control of the process      DP direct LEDs (LEDs as S7 output I/O)     —F1Fx     Direct keys (keys as S7 input I/O)     —F1Fx     Direct keys (touch buttons as S7 input I/O)     Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  No  Solve in the process  No  No  Solve in thout in the process  No  Solve in the process  Solve in the process  No  Solve in the process  Solve in the process in the proce	-	Yes; similar to mobile phone
Expansions for operator control of the process  • DP direct LEDs (LEDs as S7 output I/O)  — F1Fx  • Direct keys (keys as S7 input I/O)  — F1Fx  • Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation	·	
DP direct LEDs (LEDs as S7 output I/O)     — F1Fx     Direct keys (keys as S7 input I/O)     — F1Fx     Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  No  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  Page 124  24  • Direct keys (keys as S7 input I/O)  0  Vertical  No  No  Mounting position  Yes  maximum permissible angle of inclination without external ventilation  **Time Time Time Time Time Time Time Time		No; without
<ul> <li>F1Fx</li> <li>Direct keys (keys as S7 input I/O)</li> <li>F1Fx</li> <li>Direct keys (touch buttons as S7 input I/O)</li> <li>Installation type/mounting</li> <li>Mounting position</li> <li>Wall mounting/direct mounting</li> <li>Mounting in portrait format possible</li> <li>Mounting in landscape format possible</li> <li>maximum permissible angle of inclination without external ventilation</li> </ul>		
Direct keys (keys as S7 input I/O)     —F1Fx     Direct keys (touch buttons as S7 input I/O)      Installation type/mounting     Mounting position     Wall mounting/direct mounting     Mounting in portrait format possible     Mounting in landscape format possible     maximum permissible angle of inclination without external ventilation  Plinetallation  Vertical  No  No  Mounting in portrait format possible  Tes  Tes  Tes  Tes  Tes  Tes  Tes  T		
— F1Fx  ■ Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  24  Vertical  No  No  35°		24
● Direct keys (touch buttons as S7 input I/O)  Installation type/mounting  Mounting position  Wall mounting/direct mounting  No  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  ● Direct keys (touch buttons as S7 input I/O)  Vertical  No  No  35°	<ul> <li>Direct keys (keys as S7 input I/O)</li> </ul>	
Installation type/mounting  Mounting position  Wall mounting/direct mounting  No  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  Vertical  No  No  35°	— F1Fx	
Mounting position  Wall mounting/direct mounting  No  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  vertical  No  No  35°		0
Wall mounting/direct mounting  Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  No  Yes  35°	Installation type/mounting	
Mounting in portrait format possible  Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  Yes  35°		vertical
Mounting in landscape format possible  maximum permissible angle of inclination without external ventilation  Yes  35°	Wall mounting/direct mounting	No
maximum permissible angle of inclination without external ventilation 35°		No
ventilation		Yes
Supply voltage		35°

Tuno of cumply yell- :	DC
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)	0.5 A
Starting current inrush I²t	0.5 A <sup>2</sup> ·s
Power	
Active power input, typ.	12 W
Processor	
Processor type	X86
Memory	
Flash	Yes
RAM	Yes
Memory available for user data	12 Mbyte
Type of output	
Info LED	Yes
Power LED	No
Error LED	No
Acoustics	
Buzzer	No
Speaker	Yes
Time of day	
Clock	
Hardware clock (real-time)	Yes
Software clock	Yes
retentive	Yes; Back-up duration typically 6 weeks
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	1
Number of RS 232 interfaces	0
Number of USB interfaces	2; USB 2.0
• USB Mini B	1; 5-pole
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	
	0
Number of SD card slots	2
Number of SD card slots With software interfaces	
	2
With software interfaces	2
With software interfaces Industrial Ethernet	2 No
With software interfaces Industrial Ethernet  • Industrial Ethernet status LED	2 No 2
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch	2 No 2
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET	2 No  2 2 2 Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols	2 No  2 2 2 2 Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols PROFINET Supports protocol for PROFINET IO	2 No  2 2 2 Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT	2 No  2 2 2 Yes Yes Yes; As of WinCC V12
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS	2 No  2 2 2  Yes Yes Yes Yes; As of WinCC V12 Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP	2 No  2 2 2  Yes Yes Yes, As of WinCC V12 Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI	2 No  2 2 2  Yes Yes Yes, As of WinCC V12 Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)	2 No  2 2 2  Yes Yes Yes; As of WinCC V12 Yes Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP	2 No  2 2 2  Yes  Yes  Yes  Yes, As of WinCC V12  Yes  Yes  Yes  Yes  Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP  DHCP	2 No  2 2 2  Yes  Yes  Yes  Yes  Yes  Yes  Y
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP  DHCP  SNMP  DCP	2 No  2 2 2  Yes Yes Yes; As of WinCC V12 Yes Yes Yes Yes Yes Yes Yes Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP  DHCP  SNMP	2 No  2 2 2  Yes Yes Yes Yes; As of WinCC V12 Yes Yes Yes Yes Yes Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP  DHCP  SNMP  DCP  LLDP	2 No  2 2 2  Yes Yes Yes; As of WinCC V12 Yes Yes Yes Yes Yes Yes Yes Yes Yes
With software interfaces Industrial Ethernet  Industrial Ethernet status LED  Number of ports of the integrated switch  Protocols  PROFINET  Supports protocol for PROFINET IO  IRT  PROFIBUS  EtherNet/IP  MPI  Protocols (Ethernet)  TCP/IP  DHCP SNMP DCP LLDP  WEB characteristics	2 No  2 2 2  Yes Yes Yes Yes; As of WinCC V12 Yes

• HTML	Yes
• XML	Yes
• CSS	Yes
<ul> <li>Active X</li> </ul>	Yes
<ul> <li>JavaScript</li> </ul>	Yes
Java VM	No
Redundancy mode	
Media redundancy	
— MRP	Yes; As of WinCC V12
Further protocols	
• CAN	No
• MODBUS	Yes
Interrupts/diagnostics/status information	
Diagnoses	
<ul> <li>Diagnostic information readable</li> </ul>	Yes; S7 controller
EMC	
Emission of radio interference acc. to EN 55 011	
Limit class A, for use in industrial areas	Yes
Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	IF 20
	Yes
<ul><li>Enclosure Type 4 at the front</li><li>Enclosure Type 4x at the front</li></ul>	Yes
	res
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Use in hazardous areas	
ATEX Zone 2	Yes
ATEX Zone 22	Yes
• IECEx Zone 2	Yes
• IECEx Zone 22	Yes
<ul> <li>cULus Class I Zone 1</li> </ul>	No
<ul> <li>cULus Class I Zone 2, Division 2</li> </ul>	Yes
FM Class I Division 2	Yes
Marine approval	
<ul> <li>Germanischer Lloyd (GL)</li> </ul>	Yes
<ul> <li>American Bureau of Shipping (ABS)</li> </ul>	Yes
Bureau Veritas (BV)	Yes
<ul> <li>Det Norske Veritas (DNV)</li> </ul>	Yes
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>	Yes
<ul> <li>Polski Rejestr Statkow (PRS)</li> </ul>	No
Ambient conditions	
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
<ul> <li>For vertical installation, max.</li> </ul>	50 °C; (55 °C, see entry ID: 64847814)
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
<ul> <li>At maximum tilt angle, max.</li> </ul>	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 anala, may	35 °C
— At maximum tilt angle, max.  Ambient temperature during storage/transportation	33 C
Ambient temperature during storage/transportation     min.	-20 °C
• max.	-20 °C
Relative humidity	00 0
Operation, max.	90 %; no condensation
Operating systems	oo 76, He condendation
proprietary	No
pre-installed operating system	140
Windows CE	Yes
configuration / header	1.30
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
Configuration software	
STEP 7 Basic (TIA Portal)	No
STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Standard	No
<ul> <li>WinCC flexible Advanced</li> </ul>	No
<ul> <li>WinCC Basic (TIA Portal)</li> </ul>	No
<ul> <li>WinCC Comfort (TIA Portal)</li> </ul>	Yes; from V11
<ul> <li>WinCC Advanced (TIA Portal)</li> </ul>	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
Languages	
Online languages	
Number of online/runtime languages	32
Project languages	
<ul> <li>Languages per project</li> </ul>	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
<ul> <li>SIMATIC WinCC Sm@rtServer</li> </ul>	Yes
SIMATIC WinCC Audit	Yes
Number of Visual Basic Scripts	Yes
Task planner	
• time-controlled	Yes
• task-controlled	Yes
Help system	70
Number of characters per info text	70
Message system	22
Number of alarm classes     Dit massages	32 Van
Bit messages  Number of hit messages	Yes
— Number of bit messages	4 000 Voc
Analog messages     Number of analog messages	Yes
Number of analog messages     S7 alarm number procedure	200 Yes
S7 alarm number procedure     System messages HMI	Yes
<ul><li>System messages HMI</li><li>System event, more (SIMATIC S7, SINUMERIK,</li></ul>	Yes
• System event, more (SIMATIC 57, SINUMERIK, SIMOTION,)	165
Number of characters per message	80
Number of process values per message	8
Acknowledgment groups	Yes

Message indicator	Yes
Message Indicator     Message buffer	
Number of entries	1 024
Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
Recipe management	166
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
<ul> <li>Image selection by PLC</li> </ul>	Yes
<ul> <li>Image number in the PLC</li> </ul>	Yes
Image objects	
<ul> <li>Number of objects per image</li> </ul>	400
<ul><li>Text fields</li></ul>	Yes
<ul><li>I/O fields</li></ul>	Yes
<ul> <li>Graphic I/O fields (graphics list)</li> </ul>	Yes
<ul> <li>Symbolic I/O fields (text list)</li> </ul>	Yes
Date/time fields	Yes
<ul><li>Switches</li></ul>	Yes
Buttons	Yes
Graphic display	Yes
• Icons	Yes
Geometric objects	Yes
Complex image objects	22
Number of complex objects per screen	20
Alarm view     Trand view	Yes
• Trend view	Yes
User view     Status/control	Yes
Status/control     Sm@rtClient view	Yes
Sm@rtClient view     Pegine view	Yes
Recipe view     f(x) trand view	Yes Yes
<ul><li>f(x) trend view</li><li>System diagnostics view</li></ul>	Yes
System diagnostics view     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

<ul> <li>Number of graphics lists per project</li> </ul>	500
Number of graphics lists per project     Number of entries per graphics list	500
Archiving	500
Number of archives per device	50
Number of arctives per device     Number of entries per archive	20 000
Message archive	Yes
Process value archive	Yes
	165
Archiving methods     Convertible problem	Ves
— Sequential archive	Yes
— Short-term archive	Yes
Memory location	V
— Memory card	Yes
— USB memory	Yes
— Ethernet	Yes
Data storage format	
— CSV	Yes
— TXT	Yes
— RDB	Yes
Security	
Number of user groups	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	
<ul> <li>Alarms</li> </ul>	Yes
<ul> <li>Report (shift log)</li> </ul>	Yes
<ul> <li>Hardcopy</li> </ul>	Yes
Electronic print to file	Yes; PDF, HTML
Character sets	
<ul> <li>Keyboard fonts</li> </ul>	
— US English	Yes
Transfer (upload/download)	
MPI/PROFIBUS DP	Yes
• USB	Yes
<ul><li>Ethernet</li></ul>	Yes
<ul> <li>using external storage medium</li> </ul>	Yes
Process coupling	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	
	Yes
• S7-300/400	Yes Yes
• S7-300/400	Yes
<ul><li>S7-300/400</li><li>LOGO!</li></ul>	Yes Yes
<ul><li>S7-300/400</li><li>LOGO!</li><li>WinAC</li></ul>	Yes Yes
<ul><li>S7-300/400</li><li>LOGO!</li><li>WinAC</li><li>SINUMERIK</li></ul>	Yes Yes Yes; with SINUMERIK option package
<ul><li>S7-300/400</li><li>LOGO!</li><li>WinAC</li><li>SINUMERIK</li><li>SIMOTION</li></ul>	Yes Yes Yes Yes; with SINUMERIK option package Yes
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> </ul>	Yes Yes Yes Yes Yes; with SINUMERIK option package Yes Yes
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <li>SINUMERIK</li> <li>SIMOTION</li> <li>Allen Bradley (EtherNet/IP)</li> <li>Allen Bradley (DF1)</li> </ul>	Yes Yes Yes Yes; with SINUMERIK option package Yes Yes Yes
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes You
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>S7-300/400</li> <li>LOGO!</li> <li>WinAC</li> <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 Yes Yes; with SINUMERIK option package Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye

<ul> <li>Device switchover</li> </ul>	Yes
Peripherals/Options	
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes; Up to 16 GB
SIMATIC HMI USB stick	Yes; Up to 8 GB
Network camera	Yes
Mechanics/material	
Enclosure material (front)	
<ul> <li>Plastic</li> </ul>	No
<ul> <li>Aluminum</li> </ul>	Yes
Stainless steel	No
Dimensions	
Width of the housing front	308 mm
Height of housing front	204 mm
Mounting cutout, width	281 mm
Mounting cutout, height	177 mm
Overall depth	63 mm
Weights	
Weight (without packaging)	2.2 kg
Weight (with packaging)	2.8 kg

last modified:

5/27/2022 🖸