## **SIEMENS**

## **Data sheet**

6AG1123-2JB03-2AX0

SIPLUS HMI KTP900 Basic Color PN based on 6AV2123-2JB03-0AX0 with conformal coating, -20...+50 °C, 9" TFT display, 65536 colors PROFINET interface



Figure similar

General information	
Product type designation	KTP900 Basic color PN
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	9 in
Display width	198 mm
Display height	111.7 mm
Number of colors	65 536
Resolution (pixels)	
<ul> <li>Horizontal image resolution</li> </ul>	800 pixel
Vertical image resolution	480 pixel
Backlighting	
<ul> <li>MTBF backlighting (at 25 °C)</li> </ul>	20 000 h
<ul> <li>Backlight dimmable</li> </ul>	Yes
Control elements	
Keyboard fonts	
<ul> <li>Function keys</li> </ul>	
<ul> <li>Number of function keys</li> </ul>	8
<ul> <li>Number of function keys with LEDs</li> </ul>	0
<ul> <li>Keys with LED</li> </ul>	No
<ul> <li>System keys</li> </ul>	No
<ul> <li>Numeric keyboard</li> </ul>	Yes; Onscreen keyboard
alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
Design as touch screen	Yes; Analog-resistive
Installation type/mounting	
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)	230 mA
Starting current inrush I²t	0.2 A <sup>2</sup> ·s
Power	

Active power input, typ.	5.5 W
Processor	0.0 11
Processor type	ARM
Memory	ALTIVI
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
Type of output	
Acoustics	
Buzzer	Yes
Speaker	No
Time of day	
Clock	
Hardware clock (real-time)	Yes
<ul> <li>Software clock</li> </ul>	Yes
• retentive	Yes
synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	0
Number of RS 422 interfaces	0
Number of RS 232 interfaces	0 4. Un to 40 OB
Number of USB interfaces	1; Up to 16 GB
Number of 20 mA interfaces (TTY)  Number of parallel interfaces	0
Number of parallel interfaces  Number of other interfaces	0
Number of SD card slots	0
With software interfaces	No
Industrial Ethernet	
Industrial Ethernet status LED	2
Protocols	
	Yes
Protocols	Yes No
Protocols PROFINET	
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS	No No No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP	No No No Yes
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI	No No No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)	No No No Yes No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP	No No No Yes No Yes
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP	No No No Yes No Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP	No No No Yes No Yes Yes Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP	No No No Yes No Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP	No No No Yes No Yes Yes Yes Yes Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP	No No No Yes No Yes Yes Yes Yes Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics	No No No Yes No Yes Yes Yes Yes Yes Yes Yes
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP	No No No Yes No Yes Yes Yes Yes Yes Yes Yes Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN	No No No Yes No Yes Yes Yes Yes Yes Yes No No No
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP  WEB characteristics • HTTP • HTML  Further protocols • CAN • MODBUS	No No No Yes No Yes Yes Yes Yes Yes Yes You No No
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN	No No No Yes No Yes Yes Yes Yes Yes Yos No No No
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses	No No Yes No Yes
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable	No No No Yes No Yes Yes Yes Yes Yes Yos No No No
Protocols  PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses	No No Yes No Yes
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable EMC Emission of radio interference acc. to EN 55 011	No No Yes No Yes
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable EMC Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas	No No Yes No Yes Yes Yes Yes Yes Yes Yes Yes No No No No No No Yes; Modicon (MODBUS TCP/IP)
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable  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 No No Yes No Yes Yes Yes Yes Yes Yes Yes No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable  EMC Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class of protection	No No No Yes No Yes Yes Yes Yes Yes Yes Yes No No No No Yes; Modicon (MODBUS TCP/IP)  Yes No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI  Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP  WEB characteristics • HTTP • HTML  Further protocols • CAN • MODBUS  Interrupts/diagnostics/status information  Diagnoses • Diagnostic information readable  EMC  Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class of protection  IP (at the front)	No No No Yes No Yes Yes Yes Yes Yes Yes Yes No No No No No Yes; Modicon (MODBUS TCP/IP)  Yes No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP WEB characteristics • HTTP • HTML Further protocols • CAN • MODBUS Interrupts/diagnostics/status information Diagnoses • Diagnostic information readable 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 Degree and class of protection IP (at the front) IP (at the front) IP (rear)	No No No Yes No Yes Yes Yes Yes Yes Yes Yes No No No No  No Yes; Modicon (MODBUS TCP/IP)  Yes No
PROFINET Supports protocol for PROFINET IO IRT PROFIBUS EtherNet/IP MPI  Protocols (Ethernet)  • TCP/IP • DHCP • SNMP • DCP • LLDP  WEB characteristics • HTTP • HTML  Further protocols • CAN • MODBUS  Interrupts/diagnostics/status information  Diagnoses • Diagnostic information readable  EMC  Emission of radio interference acc. to EN 55 011 • Limit class A, for use in industrial areas • Limit class of protection  IP (at the front)	No No No Yes No Yes Yes Yes Yes Yes Yes Yes No No No No No Yes; Modicon (MODBUS TCP/IP)  Yes No

• Enclosure Type 4x at the front	Yes
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	
<ul> <li>For vertical installation, min.</li> </ul>	-20 °C
<ul> <li>For vertical installation, max.</li> </ul>	50 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	-20 °C
— At maximum tilt angle, max.	40 °C
Operation (vertical installation, portrait format)	00.00
— For vertical installation, min.	-20 °C
— For vertical installation, max.	40 °C
Operation (max. tilt angle, portrait format)  — At maximum tilt angle, min.	-20 °C
At maximum tilt angle, min.  At maximum tilt angle, max.	35 °C
Ambient temperature during storage/transportation	33 0
• min.	-20 °C
• max.	60 °C
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	5 000 m
Ambient air temperature-barometric pressure- altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)
Relative humidity	
<ul> <li>With condensation, tested in accordance with IEC 60068-2-38, max.</li> </ul>	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Coolants and lubricants	
Resistant to commercially available coolants  and lubricants	Yes; Incl. diesel and oil droplets in the air
and lubricants Use in stationary industrial systems	
to biologically active substances according to	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
EN 60721-3-3	fauna); Class 3B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
<ul> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	V 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
<ul> <li>Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- 71.04</li> </ul>	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	
<ul> <li>Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> </ul>	Yes; Class 2 for high reliability
<ul> <li>Protection against fouling acc. to EN 60664-3</li> </ul>	Yes; Type 1 protection
<ul> <li>Military testing according to MIL-I-46058C, Amendment 7</li> </ul>	Yes; Discoloration of coating possible during service life
<ul> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	Yes; Conformal coating, Class A
Operating systems	
proprietary	Yes

• Windows CE • Nichows Ce • Nic	pro installed energting system	
Message indicator Yes  Message indicator Yes  Process value display (cutput) Yes  Process value display (cutput) Yes  Recipe management Yes  Recipe management Yes  STEP 7 Reasic (TIA Portal) Yes, via integrated WinCC Basic (TIA Portal)  STEP 7 Resize (TIA Portal) Yes, via integrated WinCC Basic (TIA Portal)  WinCC Besize Standard No  WinCC Exithe Standard No  WinCC Exithe Standard No  WinCC Control (TIA Portal) Yes  WinCC Portassional (TIA Portal) Yes  WinCC Professional (TIA Portal) Yes  WinCC Profesi	pre-installed operating system  • Windows CE	No
Message indicator Alarm system (not. buffer and acknowledgment) Process value display (output) Process value display (output) Process value default (input) possible value Process value default (input) possible value value Process value default (input) possible value Process value va		IVU
Alarm system (incl. buffer and acknowledgment) Process value default (input) possible STEP 7 Basic (TIA Portal)  • STEP 7 Totasic (TIA Portal)  • STEP 7 Totasic (TIA Portal)  • WinCC Basic (TIA Portal)  • WinCC C Basic (TIA Portal)  • WinCC C Basic (TIA Portal)  • WinCC C Markine Advanced  • WinCC C Basic (TIA Portal)  • WinCC C Markine Advanced  • WinCC C Basic (TIA Portal)  • WinCC C Markine Advanced  • WinCC C Markine Advanced  • WinCC C Portal  • WinCC Professional (TIA Portal)  • WinCC Professional (TIA Portal)  • WinCC Manned (TIA Portal)  • WinCC Professional (TIA Portal)  • WinCC Manned (TIA Portal)  • Ves  • Winc Manned (TIA Portal)  • Number of Alarm (Winc (TIA Portal)  • Number of haracters per info text  • Winc Manned (TIA Portal)  • Number of bit messages  • Number of bit messages  • Number of process values per message  • Numbe		V
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Process value default (input) possible Recipe management  **STEP 7 Basic (TIA Portal)  **STEP 7 Professional (TIA Portal)  **WINCC Basic (TIA Portal)  **WINCC Advanced (TIA Portal)  **WINCC Advanced (TIA Portal)  **WINCC Portal (TIA Portal)  **WINCC Professional (TIA Portal)  **WINCC Professional (TIA Portal)  **Libraries  **Number of online runtime languages  **Number of visual Basic Scripts  **Number of India Wincc Basic Wincows Wi	, ,	
Recipe management Configuration software  STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) Ves; via integrated WinCC Basic (TIA Portal) Ves		
Configuration software  STEP 7 Professional (TIA Portal) STEP 7 Professional (TIA Portal) Ves; via integrated WinCC Basic (TIA Portal) WinCC Rexible Compact No WinCC Rexible Compact No WinCC Rexible Compact No WinCC Rexible Standard No WinCC Rexible Standard No WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Comfort (TIA Portal) WinCC Professional (TIA Portal) WinCC Rexible Ves WinCC Professional (TIA Portal) WinCC Rexible Ves WinCC Rexible CITA Portal) WinCC		
STEP 7 Basic (TIA Portal)   Yes; via integrated WinCC Basic (TIA Portal)		res
• STEP 7 Professional (TIA Portal)         Yes; via integrated WinCC Basic (TIA Portal)           • WinCC flexible Compact         No           • WinCC flexible Standard         No           • WinCC Basic (TIA Portal)         Yes           • WinCC Cashic Advanced (TIA Portal)         Yes           • WinCC Advanced (TIA Portal)         Yes           • WinCC Cavanced (TIA Portal)         Yes           • WinCC Cavanced (TIA Portal)         Yes           • WinCC Cavanced (TIA Portal)         Yes           • WinCC Professional (TIA Portal)         Yes           • Number of online/runtime languages         10           • Number of online/runtime languages         10           • Languages per project         32           • Functionality under WinCC (TIA Portal)         Wes           • Languages per project         32           • Functionality under WinCC (TIA Portal)         Wes           • Languages per project         42           • Languages per project         42           • Languages per project         No           • Languages per project         No           • Languages per project         Yes           • Unimber of standarders per info text         500           • System messages         32	-	Voc. via integrated WinCC Pagia (TIA Portal)
WinCC Rexible Compact   No	, ,	
WinCC flexible Advanced   No		
WinCC flexible Advanced     WinCC Sasic (TIA Portal)     Yes     WinCC Advanced (TIA Portal)     WinC WinC Comfort (TIA Portal)     WinC Professional (TIA Portal)     WinC Service (TIA Portal)     WinC Service (TIA Portal)     WinC Service (TIA Portal)     WinC Service (TIA Portal)    Ves   WinCC Professional (TIA Portal)	·	
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WinCC Confort (TIA Portal)     WinCC Advanced (TIA Portal)     Vinic Professional (TIA Portal)     Vinic Professional (TIA Portal)     Ves     Vinic Professional (TIA Portal)      Ves  Languages     Online languages     Number of online/runtime languages     Number of online/runtime languages     Languages per project     32  Functionality under WinCC (TIA Portal)  Libraries     Ves     Number of Visual Basic Scripts     No     Task planner     Ves     • time-controlled     No     • task-controlled     ves     • time-controlled     ves     ves     ves     ves     Number of characters per info text     500  Message system     Number of alarm classes     S alarm number procedure     Number of harmacters per info text     Number of alarm classes     S alarm number procedure     Number of analog messages     Number of harmacters per message     Number of characters per message     Number of variables per device     Number of internal recipe memory     Size of internal recipe memory     Number of variables per device     Number of variables per device     Number of variables per device     Number of variables per screen		
Languages Online languages Number of online/runtime languages Number of online/runtime languages Number of online/runtime languages Languages per project 32 Functionality under WinCC (TIA Portal) Libraries Number of Visual Basic Scripts No Task planner Ves itine-controlled No task-controlled Ves Help system Number of characters per info text Number of of alarm classes Number of plit messages Number of plit messages Number of alarm classes Signame number procedure Number of analog messages System System messages HMI System event, more (SIMATIC S7, SINUMERIK, SINOTION)) Number of process values per message Nessage indicator Message indicator Message indicator Ves Message indicator Ves Message indicator Ves Data records per fecipe No Circulating buffer Ves Message indicator Ves Data records per recipe Data record per		
Daline languages   Number of online/runtime languages   10		
Online languages  • Number of online/runtime languages  • Languages per project  52  Functionality under WinCC (TIA Portal)  Libraries  Number of Visual Basic Scripts  No Task planner  • time-controlled  • task-controlled  • task-controlled  • No  Number of characters per info text  Nounber of characters per info text  Number of larm classes  • Number of bit messages  — Number of bit messages  — Number of analog messages  — Number of analog messages  — Number of analog messages  — System messages HMI  • System event, more (SIMATIC S7, SINUMERIK, SIMOTION))  • Number of faracters per message  • Number of process values per message  • Number of foracters per message  • Number of process values per message  • Number of entries  — retentive  — ret		103
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Languages per project  Functionality under WinCC (TIA Portal)  Libraries  Number of Visual Basic Scripts  Task planner  • Imer-controlled • task-controlled • task-controlled • No • Number of characters per info text  • Number of alarm classes • Number of alarm classes  • Number of alarm classes  • Number of analog messages  — Number of analog messages  — Number of analog messages  • No • System messages  — Number of nanlog messages  • S7 alarm number procedure • System went, more (SIMATIC S7, SINUMERIK, SIMOTION,)  • Number of characters per message  • Number of process values per message  • Number of process values per message  • Nessage indicator • Message indicator • Me		10
Functionality under WinCC (TIA Portal)  Libraries Number of Visual Basic Scripts Task planner  • time-controlled • task-controlled • task-controlled • task-controlled • No • task-ge with the paystem • Number of characters per info text  • Number of alarm classes • Number of alarm classes • Bit messages  — Number of bit messages  — Number of bit messages  — Number of analog messages  — Number of analog messages  • S7 alarm number procedure • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) • Number of characters per message • Number of process values per message • Number of process values per message • Acknowledgment groups • Acknowledgment groups • Message indicator • Message indicator • Message indicator • Number of entries — Circulating buffer — Number of entries — Circulating buffer — retentive — maintenance-free  Recipe management  • Number of recipes • Data records per recipe • Size of internal recipe memory • Recipe memory expandable • Number of variables per device • Number of variables per screen		22
Libraries		JL
Number of Visual Basic Scripts Task planner  ime-controlled lask-controlled ves Number of characters per info text  No Number of alarm classes Number of alarm classes Number of alarm classes Bit messages Number of analog messages Number of analog messages Number of analog messages Number of analog messages Number of characters per message System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) Number of characters per message Number of process values per message Number of process values per message Number of process values per message Nessage indicator Nessage buffer Number of entries Circulating buffer Number of entries Circulating buffer Message buffer Number of entries Size of entries Size of internal recipe memory Recipe memory expandable Number of variables per device Number of variables per screen		
Task planner  ime-controlled  lask-controlled  ves  Help system  Number of characters per info text  Number of daram classes  Number of bit messages  Number of alarm classes  Bit messages  Number of analog messages  System messages  No  System message HMI  System went, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of bracaters per message  Number of process values per message  Acknowledgment groups  Acknowledgment groups  Message indicator  Message buffer  Number of entries  Circulating buffer  retentive  metaling buffer  retentive  maintenance-free  Recipe management  Number of recipes  So  Data records per recipe  load arecords per recipe  cintries per data record  Size of internal recipe memory  Recipe memory expandable  No  Variables  Number of variables per device  Number of variables per screen  Limit values		
<ul> <li>time-controlled</li> <li>task-controlled</li> <li>Yes</li> <li>Help system</li> <li>Number of characters per info text</li> <li>Number of characters per info text</li> <li>Number of characters per info text</li> <li>Number of alarm classes</li> <li>Bit messages</li> <li>- Number of bit messages</li> <li>- Number of bit messages</li> <li>- Number of analog messages</li> <li>- Number of analog messages</li> <li>- Sy alarm number procedure</li> <li>No</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>Number of characters per message</li> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Yes</li> <li>Message indicator</li> <li>Message buffer</li> <li>Message buffer</li> <li>Message buffer</li> <li>Yes</li> <li>— Circulating buffer</li> <li>— retentive</li> <li>— retentive</li> <li>— maintenance-free</li> <li>Yes</li> <li>Data records per recipe</li> <li>Data records per recipe</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> </ul> Variables <ul> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		
• task-controlled Yes Yes  • Number of characters per info text 500  Message system  • Number of alarm classes 32 • Bit messages  — Number of bit messages 1000  • Analog messages — Number of analog messages 25 • S7 alarm number procedure No System messages HMI Yes • System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) • Number of characters per message 8 • Number of process values per message 8 • Acknowledgment groups Yes • Message indicator Yes • Message indicator Yes • Message indicator Yes — Circulating buffer Yes — retentive Yes — maintenance-free Yes  Recipe management  • Number of recipes 50 • Data records per recipe 100 • Entries per data record 100 • Size of internal recipe memory expandable No  Variables  • Number of variables per screen 100 • Limit values Yes		
Number of characters per info text  Number of alarm classes  Number of alarm classes  Bit messages  Number of analog messages  Number of analog messages  No  System number procedure  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of characters per message  Number of process values per message  Acknowledgment groups  Message indicator  Message buffer  No  Yes  Nes  Acknowledgment groups  Message indicator  Mes		
Number of characters per info text  Message system  Number of alarm classes Bit messages  - Number of bit messages  - Number of analog messages  - Number of analog messages  - Number of analog messages  System number procedure  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of characters per message  Number of process values per message  Number of process values per message  Nessage indicator  Message buffer  Number of entries  - Circulating buffer  - Recipe management  Number of recipes  Data records per recipe  No  Variables  Number of variables per device  Number of variables per screen  Limit values		
Number of alarm classes  Number of bit messages  Number of analog messages  Number of analog messages  Number of analog messages  Number of analog messages  System messages HMI  System messages HMI  System messages HMI  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of characters per message  Number of process values per message  Number of process values per message  Acknowledgment groups  Message indicator  Message indicator  Message buffer  Number of entries  Circulating buffer  retentive  maintenance-free  Recipe management  Number of recipes  Data records per recipe  Entries per data record  Size of internal recipe memory  Recipe memory expandable  No  Variables  Number of variables per device  Number of variables per screen  No  Variables		
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 Number of process values per message Acknowledgment groups Acknowledgment groups Message indicator Message indicator Message buffer — Number of ertries — Circulating buffer — retentive — maintenance-free Recipe management  Number of recipes Data records per recipe Entries per data record Size of internal recipe memory Recipe memory expandable Number of variables per screen No Variables		500
Bit messages  Number of bit messages  Number of analog messages  Number of analog messages  System procedure  System messages HMI  System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)  Number of characters per message  Number of process values per message  Nessage indicator  Message indicator  Message buffer  Nessage buffer  Nessage indicator  Message buffer  Nessage buffer  Yes  Message buffer  Yes  Message indicator  Yes  Number of entries  Circulating buffer  Pes  maintenance-free  Number of recipes  Data records per recipe  Entries per data record  Size of internal recipe memory  Recipe memory expandable  No  Variables  Number of variables per device  Number of variables per screen  Limit values  1000		20
<ul> <li>Number of bit messages</li> <li>Analog messages</li> <li>No</li> <li>System messages HMI</li> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Message indicator</li> <li>Message indicator</li> <li>Message buffer</li> <li>Yes</li> <li>Message indicator</li> <li>Yes</li> <li>Message indicator</li> <li>Yes</li> <li>Entries per data record</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul>		32
<ul> <li>Analog messages</li></ul>	•	4.000
- Number of analog messages 9		1 000
<ul> <li>S7 alarm number procedure</li> <li>System messages HMI</li> <li>System went, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Message indicator</li> <li>Message indicator</li> <li>Message buffer</li> <li>Number of entries</li> <li>Circulating buffer</li> <li>retentive</li> <li>maintenance-free</li> <li>Recipe management</li> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul>	3 3	05
<ul> <li>System messages HMI</li> <li>System event, more (SIMATIC S7, SINUMERIK, SIMOTION,)</li> <li>Number of characters per message</li> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Message indicator</li> <li>Message buffer</li> <li>Message buffer</li> <li>Number of entries</li> <li>Circulating buffer</li> <li>retentive</li> <li>maintenance-free</li> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul>		
• System event, more (SIMATIC S7, SINUMERIK, SIMOTION,) • Number of characters per message • Number of process values per message • Acknowledgment groups • Message indicator • Message buffer • Number of entries • Circulating buffer • retentive • maintenance-free  Recipe management • Number of recipes • Data records per recipe • Entries per data record • Size of internal recipe memory • Recipe memory expandable  Variables • Number of variables per device • Number of variables per screen • Number of variables per screen • Limit values  Yes; System message buffer of the SIMATIC S7-1200 and S7-1500  80  80  **Ves; System message buffer of the SIMATIC S7-1200 and S7-1500  **Size of internal groups  **Ves*  **Yes*  **Pes		
SIMOTION,)  Number of characters per message Number of process values per message Acknowledgment groups Message indicator Message buffer Number of entries Circulating buffer Yes — Recipe management Number of recipes Data records per recipe Entries per data record Size of internal recipe memory Recipe memory expandable No  Variables Number of variables per device Number of variables per screen No  No  Variables Number of variables per screen		
<ul> <li>Number of characters per message</li> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Yes</li> <li>Message indicator</li> <li>Yes</li> <li>Message buffer</li> <li>Yes</li> <li>Number of entries</li> <li>256</li> <li>Circulating buffer</li> <li>Yes</li> <li>retentive</li> <li>maintenance-free</li> <li>Yes</li> <li>maintenance-free</li> <li>Recipe management</li> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> <li>Variables</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		res, System message buller of the SiMATIC 37-1200 and 37-1300
<ul> <li>Number of process values per message</li> <li>Acknowledgment groups</li> <li>Yes</li> <li>Message indicator</li> <li>Yes</li> <li>Message buffer</li> <li>Yes</li> <li>Number of entries</li> <li>Circulating buffer</li> <li>Yes</li> <li>retentive</li> <li>maintenance-free</li> <li>Yes</li> <li>maintenance-free</li> <li>Yes</li> </ul> Recipe management <ul> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> </ul> Variables <ul> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		80
<ul> <li>Acknowledgment groups</li> <li>Message indicator</li> <li>Message buffer</li> <li>Number of entries</li> <li>Circulating buffer</li> <li>Yes</li> <li>retentive</li> <li>maintenance-free</li> <li>Number of recipes</li> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> <li>Variables</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		
<ul> <li>Message indicator</li> <li>Message buffer</li> <li>Number of entries</li> <li>Circulating buffer</li> <li>Yes</li> <li>retentive</li> <li>maintenance-free</li> <li>Yes</li> </ul> Recipe management <ul> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> </ul> Variables <ul> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		
Message buffer  Number of entries  Circulating buffer  Yes  retentive  maintenance-free  Yes  Recipe management  Number of recipes  Data records per recipe Entries per data record Size of internal recipe memory  Recipe memory expandable  Number of variables per device  Number of variables per screen  Limit values  Yes  Yes  Yes  Yes		
<ul> <li>Number of entries</li> <li>Circulating buffer</li> <li>Yes</li> <li>retentive</li> <li>maintenance-free</li> <li>Yes</li> </ul> Recipe management <ul> <li>Number of recipes</li> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> </ul> Variables <ul> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul> Yes <ul> <li>Yes</li> </ul>		
Circulating buffer Yes retentive Yes maintenance-free Yes  Recipe management  • Number of recipes • Data records per recipe • Entries per data record • Size of internal recipe memory • Recipe memory expandable  Variables  • Number of variables per device • Number of variables per screen • Limit values		
- retentive Yes - maintenance-free Yes  Recipe management  Number of recipes 50 Data records per recipe 100 Entries per data record 100 Size of internal recipe memory 256 kbyte Recipe memory expandable No  Variables  Number of variables per device 800 Number of variables per screen 100 Limit values Yes		
Recipe management  Number of recipes Data records per recipe Entries per data record Size of internal recipe memory Recipe memory expandable  Variables  Number of variables per device Number of variables per screen Limit values  50  100  800  800  100  100  100  100	5	Yes
Recipe management  Number of recipes Data records per recipe Entries per data record Size of internal recipe memory Recipe memory expandable  Variables  Number of variables per device Number of variables per screen Limit values  50  100  800  800  100  100  100  100	— maintenance-free	Yes
<ul> <li>Data records per recipe</li> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>Variables</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>100</li> <li>100</li></ul>		
<ul> <li>Entries per data record</li> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>No</li> </ul> Variables <ul> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul> 100 Yes	Number of recipes	50
<ul> <li>Size of internal recipe memory</li> <li>Recipe memory expandable</li> <li>Variables</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> </ul>	<ul> <li>Data records per recipe</li> </ul>	100
<ul> <li>Recipe memory expandable</li> <li>Variables</li> <li>Number of variables per device</li> <li>Number of variables per screen</li> <li>Limit values</li> <li>No</li> <li>Yes</li> </ul>	<ul> <li>Entries per data record</li> </ul>	100
Variables         ● Number of variables per device       800         ● Number of variables per screen       100         ● Limit values       Yes	<ul> <li>Size of internal recipe memory</li> </ul>	256 kbyte
Variables         ● Number of variables per device       800         ● Number of variables per screen       100         ● Limit values       Yes	Recipe memory expandable	No
<ul> <li>Number of variables per screen</li> <li>Limit values</li> <li>Yes</li> </ul>		
• Limit values Yes	Number of variables per device	800
	<ul> <li>Number of variables per screen</li> </ul>	100
• Multiplexing Yes	- Limitualua	Yes
	Limit values	
• Structures No		Yes
• Arrays Yes	<ul> <li>Multiplexing</li> </ul>	

Imagaa	
Images  • Number of configurable images	250
<ul><li>Number of configurable images</li><li>Permanent window/default</li></ul>	250 Yes
Global image	Yes
Image selection by PLC	Yes
Image selection by FLC     Image number in the PLC	Yes
Image objects	165
Number of objects per image	100
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	10
Alarm view	Yes
Trend view	Yes
• User view	Yes
Status/control	No
Sm@rtClient view	No
Recipe view	Yes
• f(x) trend view	No
System diagnostics view	Yes; System message buffer of the SIMATIC S7-1200 and S7-1500
Media Player	No
Bar graphs	Yes
• Sliders	No
Pointer instruments	No
Analog/digital clock	No
Lists	
Number of text lists per project	150
<ul> <li>Number of entries per text list</li> </ul>	100
<ul> <li>Number of graphics lists per project</li> </ul>	100
<ul> <li>Number of entries per graphics list</li> </ul>	100
Archiving	
<ul> <li>Number of archives per device</li> </ul>	2
<ul> <li>Number of entries per archive</li> </ul>	10 000
Message archive	Yes
<ul> <li>Process value archive</li> </ul>	Yes
<ul> <li>Archiving methods</li> </ul>	
<ul> <li>Sequential archive</li> </ul>	Yes
— Short-term archive	Yes
Memory location	
— Memory card	No
— USB memory	Yes
— Ethernet	No
Data storage format	
— CSV	No
— TXT	Yes
— RDB	No
Security	
<ul> <li>Number of user groups</li> </ul>	50
<ul> <li>Number of user rights</li> </ul>	32
<ul><li>Number of user rights</li><li>Number of users</li></ul>	50
<ul><li>Number of user rights</li><li>Number of users</li><li>Password export/import</li></ul>	50 Yes; Possible via ProSave
<ul><li>Number of user rights</li><li>Number of users</li><li>Password export/import</li><li>SIMATIC Logon</li></ul>	50
<ul> <li>Number of user rights</li> <li>Number of users</li> <li>Password export/import</li> <li>SIMATIC Logon</li> </ul> Character sets	50 Yes; Possible via ProSave
<ul> <li>Number of user rights</li> <li>Number of users</li> <li>Password export/import</li> <li>SIMATIC Logon</li> <li>Character sets</li> <li>Keyboard fonts</li> </ul>	50 Yes; Possible via ProSave No
<ul> <li>Number of user rights</li> <li>Number of users</li> <li>Password export/import</li> <li>SIMATIC Logon</li> </ul> Character sets	50 Yes; Possible via ProSave

MPI/PROFIBUS DP	No
• USB	No
<ul><li>Ethernet</li></ul>	Yes
using external storage medium	No
Process coupling	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• S7-300/400	Yes
• LOGO!	Yes
WinAC	Yes
SINUMERIK	No
• SIMOTION	Yes
<ul> <li>Allen Bradley (EtherNet/IP)</li> </ul>	Yes
<ul> <li>Allen Bradley (DF1)</li> </ul>	No
Mitsubishi (MC TCP/IP)	Yes
<ul><li>Mitsubishi (FX)</li></ul>	No
<ul><li>OMRON (FINS TCP)</li></ul>	No
<ul> <li>OMRON (LINK/Multilink)</li> </ul>	No
<ul> <li>Modicon (Modbus TCP/IP)</li> </ul>	Yes
Modicon (Modbus)	No
Service tools/configuration aids	
<ul> <li>Backup/Restore manually</li> </ul>	Yes; Possible via ProSave
<ul> <li>Backup/Restore automatically</li> </ul>	No
<ul><li>Simulation</li></ul>	Yes
Device switchover	Yes
Peripherals/Options	
Printer	No
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory	No
card	NO
card USB memory	Yes
USB memory	
USB memory Mechanics/material	
USB memory  Mechanics/material  Enclosure material (front)	Yes
USB memory  Mechanics/material  Enclosure material (front)  • Plastic	Yes
USB memory  Mechanics/material  Enclosure material (front)  • Plastic • Aluminum	Yes Yes No
USB memory  Mechanics/material  Enclosure material (front)  • Plastic  • Aluminum  • Stainless steel	Yes Yes No
USB memory  Mechanics/material  Enclosure material (front)  • Plastic  • Aluminum  • Stainless steel  Dimensions	Yes Yes No No
USB memory  Mechanics/material  Enclosure material (front)  • Plastic  • Aluminum  • Stainless steel  Dimensions  Width of the housing front	Yes Yes No No No
USB memory  Mechanics/material  Enclosure material (front)  • Plastic  • Aluminum  • Stainless steel  Dimensions  Width of the housing front Height of housing front	Yes Yes No No 182 mm
USB memory  Mechanics/material  Enclosure material (front)  • Plastic  • Aluminum  • Stainless steel  Dimensions  Width of the housing front Height of housing front Mounting cutout, width	Yes  Yes  No No  267 mm  182 mm  251 mm
USB memory  Mechanics/material  Enclosure material (front)  Plastic  Aluminum  Stainless steel  Dimensions  Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height	Yes No No 182 mm 251 mm 166 mm
USB memory  Mechanics/material  Enclosure material (front)  Plastic Aluminum Stainless steel  Dimensions  Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth  Weights	Yes No No 267 mm 182 mm 251 mm 166 mm 55 mm
USB memory  Mechanics/material  Enclosure material (front)  Plastic Aluminum Stainless steel  Dimensions  Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth  Weights  Weight (without packaging)	Yes No No 267 mm 182 mm 251 mm 166 mm 55 mm
USB memory  Mechanics/material  Enclosure material (front)  Plastic Aluminum Stainless steel  Dimensions  Width of the housing front Height of housing front Mounting cutout, width Mounting cutout, height Overall depth  Weights	Yes No No 267 mm 182 mm 251 mm 166 mm 55 mm