

Siemens 6AV2123-2MA03-0AX0 Manual

Brand	Siemens
Product Series	Sheet15
Product Type	designation KTP1200 Basic color DP

Description

6AV2123-2MA03-0AX0 Siemens SIMATIC HMI KTP1200 Basic Display Panel

6AV2123-2MA03-0AX0

SIMATIC HMI, KTP1200 Basic DP, Basic Panel, Key/touch operation, 12" TFT display, 65536 colors, PROFIBUS interface, configurable as of WinCC Basic V13/STEP 7 Basic V13, contains open-source software, which is provided free of charge see enclosed CD

General information

Product type designation KTP1200 Basic color DP

Display

Design of display TFT widescreen display, LED backlighting

Screen diagonal 12 in

Display width 261.1 mm

Display height 163.2 mm

Number of colors 65 536

Resolution (pixels)

- Horizontal image resolution 1 280 pixel
- Vertical image resolution 800 pixel

Backlighting

- MTBF backlighting (at 25 °C) 20 000 h
- Backlight dimmable Yes

Control elements

Keyboard fonts

- Function keys

— Number of function keys 10

— Number of function keys with LEDs 0

- Keys with LED No
- System keys No
- Numeric keyboard Yes; Onscreen keyboard
- alphanumeric keyboard Yes; Onscreen keyboard

Touch operation

- Design as touch screen Yes; Analog-resistive

Installation type/mounting

Mounting position vertical

Mounting in portrait format possible Yes

Mounting in landscape format possible Yes

maximum permissible angle of inclination without external ventilation

www.AutoDCSTech.com

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) 550 mA

Starting current inrush I^2t 0.2 A²·s

Power

Active power input, typ. 13.2 W

Processor

Processor type ARM

Memory

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
- Software clock Yes
- retentive Yes; Back-up duration typically 6 weeks
- synchronizable Yes

Interfaces

Number of industrial Ethernet interfaces 0

Number of RS 485 interfaces 1

Number of RS 422 interfaces 1; together with RS 485

Number of RS 232 interfaces 0; with optional adapter

Number of USB interfaces 1; Up to 16 GB

Number of 20 mA interfaces (TTY) 0

Number of parallel interfaces 0

Number of other interfaces 0

Number of SD card slots 0

With software interfaces No

Industrial Ethernet

- Industrial Ethernet status LED 0

Protocols

PROFINET No

Supports protocol for PROFINET IO No

IRT No

PROFIBUS Yes

EtherNet/IP No

MPI Yes

Protocols (Ethernet)

- TCP/IP No
- DHCP No

www.AutoDCSTech.com

- SNMP No

- DCP No

- LLDP No

WEB characteristics

- HTTP No

- HTML No

Redundancy mode

Media redundancy

— MRP No

Further protocols

- CAN No

- MODBUS Yes; Modicon (MODBUS RTU)

Interrupts/diagnostics/status information

Diagnoses

- Diagnostic information readable 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

IP (rear) IP20

NEMA (front)

- Enclosure Type 4 at the front Yes

- Enclosure Type 4x at the front Yes

Standards, approvals, certificates

CE mark Yes

cULus Yes

RCM (formerly C-TICK) Yes

KC approval Yes

Use in hazardous areas

- ATEX Zone 2 No

- ATEX Zone 22 No

- IECEx Zone 2 No

- IECEx Zone 22 No

- cULus Class I Zone 1 No

- cULus Class I Zone 2, Division 2 No

- FM Class I Division 2 No

Marine approval

- Germanischer Lloyd (GL) Yes

- American Bureau of Shipping (ABS) Yes

- Bureau Veritas (BV) Yes

- Det Norske Veritas (DNV) Yes

- Lloyds Register of Shipping (LRS) Yes

- Nippon Kaiji Kyokai (Class NK) Yes

- Polski Rejestr Statkow (PRS) No

- Chinese Classification Society (CCS) No

Ambient conditions

Suited for indoor use Yes

www.AutoDCSTech.com

Suited for outdoor use No

Ambient temperature during operation

Operation (vertical installation)

— For vertical installation, min. 0 °C

— For vertical installation, max. 50 °C

Operation (max. tilt angle)

— At maximum tilt angle, min. 0 °C

— At maximum tilt angle, max. 40 °C

Operation (vertical installation, portrait format)

— For vertical installation, min. 0 °C

— For vertical installation, max. 40 °C

Operation (max. tilt angle, portrait format)

— At maximum tilt angle, min. 0 °C

— At maximum tilt angle, max. 35 °C

Ambient temperature during storage/transportation

- min. -20 °C

- max. 60 °C

Relative humidity

- Operation, max. 90 %; no condensation

Operating systems

proprietary Yes

pre-installed operating system

- Windows CE No

configuration / header

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) Yes; via integrated WinCC Basic (TIA Portal)

- STEP 7 Professional (TIA Portal) Yes; via integrated WinCC Basic (TIA Portal)

- WinCC flexible Compact No

- WinCC flexible Standard No

- WinCC flexible Advanced No

- WinCC Basic (TIA Portal) Yes

- WinCC Comfort (TIA Portal) Yes

- WinCC Advanced (TIA Portal) Yes

- WinCC Professional (TIA Portal) Yes

Languages

Online languages

- Number of online/runtime languages 10

Project languages

- Languages per project 32

Functionality under WinCC (TIA Portal)

Libraries Yes

Applications/options

- Web browser No

- SIMATIC WinCC Sm@rtServer No

Number of Visual Basic Scripts No

www.AutoDCSTech.com

Task planner Yes

- time-controlled No
- task-controlled Yes

Help system Yes

- Number of characters per info text 500

Message system

- Number of alarm classes 32
- Bit messages
 - Number of bit messages 1 000
- Analog messages
 - Number of analog messages 25
- S7 alarm number procedure No
- System messages HMI Yes
- System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...)

Yes; System message buffer of the SIMATIC S7-1200 and S7-1500

- Number of characters per message 80
- Number of process values per message 8
- Acknowledgment groups Yes
- Message indicator Yes
- Message buffer
 - Number of entries 256
 - Circulating buffer Yes
 - retentive Yes
 - maintenance-free Yes

www.AutoDCSTech.com

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
- Multiplexing Yes
- Structures No
- Arrays Yes

Images

- Number of configurable images 250
- Permanent window/default Yes
- Global image Yes
- Pop-up images No

Slide-in images No

- Image selection by PLC Yes
- Image number in the PLC Yes

Image objects

- 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
 - HTML browser No
 - PDF display No
 - IP camera display No
 - Bar graphs Yes
 - Sliders No
 - Pointer instruments No
 - Analog/digital clock No

www.AutoDCSTech.com

Lists

- Number of text lists per project 300
- Number of entries per text list 100
- Number of graphics lists per project 100
- Number of entries per graphics list 100

Archiving

- Number of archives per device 2; One message and one process value archive
- Number of entries per archive 10 000
- Message archive Yes
- Process value archive Yes
- Archiving methods
 - Sequential archive 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

- Number of user groups 50
- Number of user rights 32
- Number of users 50

- Password export/import Yes
- SIMATIC Logon No

Character sets

Keyboard fonts

— US English Yes

Transfer (upload/download)

- MPI/PROFIBUS DP Yes
- USB No
- Ethernet No
- 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; No access to NCK data
- SIMOTION Yes
- Allen Bradley (EtherNet/IP) No
- Allen Bradley (DF1) Yes
- Mitsubishi (MC TCP/IP) No
- Mitsubishi (FX) Yes
- OMRON (FINS TCP) No
- OMRON (LINK/Multilink) Yes
- Modicon (Modbus TCP/IP) No
- Modicon (Modbus) Yes

Service tools/configuration aids

- Backup/Restore manually Yes
- Backup/Restore automatically No
- Simulation 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 card No

SIMATIC HMI CF memory card Compact Flash Card No

USB memory Yes

SIMATIC IPC USB Flashdrive (USB stick) Yes

SIMATIC HMI USB stick Yes

Mechanics/material

Enclosure material (front)

- Plastic Yes
- Aluminum No
- Stainless steel No

Dimensions

Width of the housing front 330 mm

Height of housing front 245 mm

Mounting cutout, width 310 mm

www.AutoDCSTech.com

Mounting cutout, height 221 mm

Overall depth 54.9 mm

Weights

Weight (without packaging) 1 710 g

www.AutoDCSTech.com