

SIPLUS HMI MTP1200 Unified Comfort, with conformal coating based on 6AV2128-3MB06-0AX1



Figure similar

General information	
Product type designation	MTP1200 Unified Comfort
based on	6AV2128-3MB06-0AX1-Z A06+S00 (A5E51779631)
Display	
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)	
• Horizontal image resolution	1 280 pixel
• Vertical image resolution	800 pixel
Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C
• Backlight dimmable	Yes; 5-100 %
Control elements	
Keyboard fonts	
• Numeric keyboard	Yes; Onscreen keyboard
• alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
• Design as touch screen	Yes
• Design as multi-touch screen	Yes
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	0.6 A
Current consumption, max.	1.3 A
Starting current inrush I <sup>2</sup> t	0.5 A <sup>2</sup> ·s
Memory	
Flash	Yes

RAM	Yes
<b>Type of output</b>	
Acoustics	
• Buzzer	Yes
• Speaker	No
<b>Time of day</b>	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
<b>Interfaces</b>	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	0; together with RS 485
Number of USB interfaces	4; USB 3.1 Gen. 1 (type A)
Number of SD card slots	2
Industrial Ethernet	
• Industrial Ethernet status LED	2
• Number of ports of the integrated switch	2
<b>Protocols</b>	
PROFINET	Yes
Supports protocol for PROFINET IO	No
Protocols (Ethernet)	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
<b>EMC</b>	
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
<b>Degree and class of protection</b>	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	
• Enclosure Type 4x at the front	Yes
• Enclosure Type 12 at the front	No
<b>Standards, approvals, certificates</b>	
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	220 kg
— global warming potential, (during production) [CO2 eq]	60.5 kg
— global warming potential, (during operation) [CO2 eq]	167 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-8.95 kg
<b>Ambient conditions</b>	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C; = Tmin
— For vertical installation, max.	50 °C; = Tmax
Operation (max. tilt angle)	

— At maximum tilt angle, min.	0 °C; = Tmin
— At maximum tilt angle, max.	40 °C; = Tmax
<b>Operation (vertical installation, portrait format)</b>	
— For vertical installation, min.	0 °C; = Tmin
— For vertical installation, max.	40 °C; = Tmax
<b>Operation (max. tilt angle, portrait format)</b>	
— At maximum tilt angle, min.	0 °C; = Tmin
— At maximum tilt angle, max.	35 °C; = Tmax
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Altitude during operation relating to sea level</b>	
• 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)
<b>Relative humidity</b>	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning when condensation present), horizontal at vertical mounting position
<b>Resistance</b>	
<b>Coolants and lubricants</b>	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
<b>Use in stationary industrial systems</b>	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
<b>Use on ships/at sea</b>	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
— 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; *
<b>Usage in industrial process technology</b>	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	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)
<b>Remark</b>	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!
<b>Conformal coating</b>	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A
<b>Operating systems</b>	
proprietary	Yes
<b>configuration / header</b>	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
<b>Configuration software</b>	
• WinCC Unified Comfort Engineering (TIA Portal)	Yes
• WinCC Unified PC Engineering (TIA Portal)	Yes

**Languages****Online languages**

- Number of online/runtime languages 32

**Project languages**

- Languages per project 32

**Functionality under WinCC Unified****Libraries** Yes**Applications/options**

- Writer Yes
- Web browser Yes
- Media Player Yes
- SIMATIC WinCC Sm@rtServer Yes
- SIMATIC WinCC Audit No
- Unified Collaboration Yes

**JavaScript** Yes**Task planner**

- time-controlled Yes
- task-controlled Yes

**Help system**

- Number of characters per info text 70
- Number of message texts per message 10

**functionality under WinCC Unified / alarm system / header**

- Number of alarm classes 32
- Bit messages
  - Number of bit messages 9 000
- Analog messages
  - Number of analog messages 300
- S7 alarm number procedure Yes
- System messages HMI Yes
- System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... ) Yes
- Number of characters per message 512
- Number of process values per message 10
- Acknowledgment groups Yes
- Message indicator No
- Message buffer Yes; Configured as alarm archive
  - Circulating buffer Yes
  - retentive Yes
  - maintenance-free Yes

**Parameter set management (recipes)**

- Number of parameter set types 750
- Parameter sets per parameter set type 2 000
- Entries per parameter set 1 000
- Parameter set memory expandable Yes

**functionality under WinCC Unified / variables / header**

- Number of variables per device 8 000
- Number of variables per screen 600
- Limit values Yes
- Structures Yes
- Arrays Yes

**functionality under WinCC Unified / screens / header**

- Number of configurable images 1 200
- Faceplate Yes

**Image objects**

- Number of objects per image 800
- Picture window Yes
- Text fields Yes
- I/O fields Yes
- Graphic I/O fields (graphics list) Yes
- Symbolic I/O fields (text list) Yes
- Scalable Vector Graphics (SVG) Yes

• Date/time fields	Yes
• Checkbox	Yes
• Option button	Yes
• Switches	Yes
• Buttons	Yes
• Graphic display	Yes
• Icons	Yes
• Custom web display	Yes
• Geometric objects	Yes
<b>functionality under WinCC Unified / complex screen objects / header</b>	
• Number of complex objects per screen	40
• Alarm view	Yes
• Trend view	Yes
• User view	Yes
• Status/control	No
• Parameter set display	Yes
• HTML browser	Yes
• Bar graphs	Yes
• Sliders	Yes
• Pointer instruments	Yes
• Analog/digital clock	Yes
<b>functionality under WinCC Unified / lists / header</b>	
• Number of text lists per project	750
• Number of entries per text list	750
• Number of graphics lists per project	750
• Number of entries per graphics list	750
<b>functionality under WinCC Unified / archiving / header</b>	
• Number of archives per device	50
• Number of entries per archive	500 000
• Message archive	Yes
• Process value archive	Yes
• type of archiving / for WinCC Unified	
— Sequential archive	Yes
— Short-term archive	Yes
• storage location / of archiving / for WinCC Unified	
— Memory card	Yes
— USB memory	Yes
— Ethernet	No
<b>Security</b>	
• Number of roles	50
• Number of function rights	0; V16
• Number of users	200
• Password export/import	Yes
• Central user administration	Yes; as of WinCC V17
<b>functionality under WinCC Unified / transfer (upload/download) / header</b>	
• USB	No
• Ethernet	Yes
• using external storage medium	Yes; as of WinCC Unified V17
<b>Process coupling</b>	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	No
• S7-300/400	Yes
• Number of S7 connections	16
• LOGO!	No
• SIMOTION	No
• OPC UA Client	No
• OPC UA Server	No
• Software Controller/Open Controller	No
<b>functionality under WinCC Unified / service tools/configuration tools / header</b>	
• Backup/Restore manually	Yes

• Backup/Restore automatically	Yes
• Simulation	Yes
• Device switchover	Yes

#### Peripherals/Options

Peripherals	Printer, barcode reader
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory card	Yes
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes
SIMATIC HMI USB stick	Yes
Network camera	No

#### Mechanics/material

Enclosure material (front)	
• Aluminum	Yes

#### Dimensions

Width of the housing front	326 mm
Height of housing front	237 mm
Mounting cutout, width	310.6 mm
Mounting cutout, height	221.1 mm
Overall depth	64 mm

#### Weights

Weight (without packaging)	2.8 kg
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last modified:

11/20/2024 