SIEMENS

Data sheet 6AG1128-3GB06-4AX1

SIPLUS HMI MTP700 Unified Comfort, with conformal coating based on 6AV2128-3GB06-0AX1

Figure similar

General information	
Product type designation	MTP700 Unified Comfort
based on	6AV2128-3GB06-0AX1-Z A06+S00 (A5E51779624)
Display	
Design of display	TFT
Screen diagonal	7 in
Display width	152.4 mm
Display height	91.4 mm
Number of colors	16 777 216
Resolution (pixels)	
● Horizontal image resolution	800 pixel
● Vertical image resolution	480 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)	0.45 A
Current consumption, max.	1 A
Starting current inrush I²t	0.5 A²·s
Memory	
Flash	Yes

RAM	Yes
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	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
Protocols	
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
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 4x at the front	Yes
● Enclosure Type 12 at the front	No
Ambient conditions	
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
Operation (vertical installation, portrait format)	
— For vertical installation, min.	0 °C; = Tmin
— For vertical installation, max.	40 °C; = Tmax
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0 °C; = Tmin
— At maximum tilt angle, max.	35 °C; = Tmax
Ambient temperature during storage/transportation	
● 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	
● 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
Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems	
— 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, *
Use on ships/at sea	
— 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; *
Usage in industrial process technology	
— 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)
Remark	
— 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!
Conformal coating	
● 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
Operating systems	
proprietary	Yes
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	
● 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
● Calc	Yes

● Web browser	Yes
● PDF Viewer	Yes
● Media Player	Yes
● SIMATIC WinCC Sm@rtServer	Yes
● SIMATIC WinCC Audit	No
● Unified Collaboration	Yes
Number of Visual Basic Scripts	No
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 messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	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
● Size of internal parameter set memory	12 Mbyte
● 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
functionality under WinCC Unified / complex screen objects / header	
● 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
functionality under WinCC Unified / lists / header	
● 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
functionality under WinCC Unified / archiving / header	
● 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
Security	
● 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
functionality under WinCC Unified / transfer (upload/download) / header	
● USB	No
● Ethernet	Yes
● using external storage medium	Yes; as of WinCC Unified V17
Process coupling	
● 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	Yes
● OPC UA Server	Yes
● Software Controller/Open Controller	No
functionality under WinCC Unified / service tools/configuration tools / header	
● 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	214 mm
Height of housing front	158 mm
Mounting cutout, width	197 mm
Mounting cutout, height	141 mm
Overall depth	64 mm
Weights	
Weight (without packaging)	1.4 kg

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