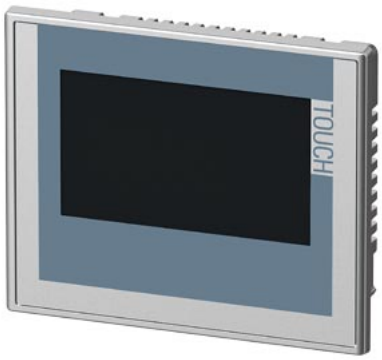
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Data sheet 6AV2143-6DB00-0AA0



SIMATIC HMI, TP400 Basic Keyless; Basic Panel, neutral design, touch operation, 4" TFT display, 65536 colors, PROFINET interface, configurable from 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	TP400 Basic Keyless
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	4.3 in
Display width	95 mm
Display height	53.9 mm
Number of colors	65 536
Resolution (pixels)	
● Horizontal image resolution	480 pixel
● Vertical image resolution	272 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	20 000 h
● Backlight dimmable	Yes
Control elements	
Keyboard fonts	
● Function keys	No
— Number of function keys	0
— 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
● Design as multi-touch screen	No
● Monitor keyboard	Yes
Installation type/mounting	
Wall mounting/direct mounting	No
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)	125 mA

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Starting current inrush I²t	0.2 A²·s
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
● 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
Number of USB interfaces	1
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	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	No
IRT	No
PROFIBUS	No
EtherNet/IP	Yes
MPI	No
Protocols (Ethernet)	
● TCP/IP	Yes
● DHCP	Yes
● SNMP	Yes
● DCP	Yes
● LLDP	Yes
WEB characteristics	
● HTTP	No
● HTML	No
Further protocols	
● CAN	No
● MODBUS	Yes; Modicon (MODBUS TCP/IP)
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)	

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● 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
EAC (formerly Gost-R)	Yes
Use in hazardous areas	
● ATEX Zone 2	No
● ATEX Zone 22	No
● cULus Class I Zone 1	No
● cULus Class I Zone 2, Division 2	No
● FM Class I Division 2	No
Ambient conditions	
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 %
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
Number of Visual Basic Scripts	No

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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
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	100
● Permanent window/default	Yes
● Global image	Yes
● Image selection by PLC	Yes
● Image number in the PLC	Yes
Image objects	
● 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

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● Recipe view	Yes
● f(x) trend view	No
● System diagnostics view	Yes
● Media Player	No
● PDF display	No
● IP camera display	No
● Bar graphs	Yes
● Sliders	No
● Pointer instruments	No
● Analog/digital clock	No
Archiving	
● Number of archives per device	2
● 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	Yes
— TXT	No
— RDB	No
Security	
● Number of user groups	50
● Password export/import	Yes; Possible via ProSave
● SIMATIC Logon	No
Character sets	
● Keyboard fonts	
— US English	Yes
Transfer (upload/download)	
● MPI/PROFIBUS DP	No
● USB	No
● Ethernet	Yes
● using external storage medium	Yes; Backup/restore
Process coupling	
● S7-1200	Yes
● S7-1500	Yes
● S7-200	Yes
● S7-300/400	Yes
● LOGO!	Yes
● WinAC	Yes
● SIMOTION	Yes
● Allen Bradley (EtherNet/IP)	Yes
● Allen Bradley (DF1)	No
● Mitsubishi (MC TCP/IP)	Yes
● Mitsubishi (FX)	No
● OMRON (FINS TCP)	No
● OMRON (LINK/Multilink)	No
● Modicon (Modbus TCP/IP)	Yes
● Modicon (Modbus)	No
Service tools/configuration aids	
● Backup/Restore manually	Yes
● Backup/Restore automatically	No
● Simulation	Yes
● Device switchover	Yes
Peripherals/Options	
Printer	No

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SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory card	No
USB memory	Yes; USB storage medium can be connected

Mechanics/material

Enclosure material (front)	
● Plastic	Yes
● Aluminum	No
● Stainless steel	No

Dimensions

Width of the housing front	140 mm
Height of housing front	116 mm
Mounting cutout, width	123 mm
Mounting cutout, height	99 mm
Overall depth	33 mm

Classifications

	Version	Classification
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	10	EC001412
ETIM	9	EC001412
ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval

Manufacturer Declaration







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