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Data sheet 6AV6645-0BB01-0AX0

SIMATIC Mobile Panel 177 PN with integrated acknowledgment button and stop button, configurable with WinCC flexible Compact Version 2005 or higher or TIA Portal V11 to V14



Figure similar

General information	
Product type designation	177 PN
Display	
Design of display	STN
Screen diagonal	5.7 in
Color display	Yes
Number of colors	256
Resolution (pixels)	
• Horizontal image resolution	320 Pixel
• Vertical image resolution	240 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h
• Backlight dimmable	No
Control elements	
Control elements	Keys and touch
Keyboard fonts	

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• Membrane keyboard	
— user-definable label membrane keys	Yes
• Function keys	
— Number of function keys	14
— Number of function keys with LEDs	8
• Keys with LED	Yes; 8 with LED
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
• Multi-key operation	Yes
— Number of multi-key operations	2
Touch operation	
• Design as touch screen	Yes; analog, resistive
Special operator controls	
• Stop button	Yes
• Acknowledgement button	Yes
• Key-operated switch	No
• Illuminated pushbutton	No
• Handwheel	No
Supply voltage	
Design of the power supply	via connection box
Type of supply voltage	DC
Processor	
Processor type	RISC 32 bit, 200 MHz
Drives	
Diskette drive	No
CD-ROM	No
Hard disk	No
Memory	
Type of memory	Flash / RAM
Memory available for user data	2 048 kbyte
Accumulator	
Buffer battery	Yes; maximum buffer time 10 min
Type of output	
Info LED	No
Power LED	No
Error LED	No
Interfaces	
Interfaces/bus type	1x RS 485, 1x Ethernet (RJ45)

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Number of RS 485 interfaces	1
Number of USB interfaces	0
Number of wireless interfaces	0
PC card slot	No
CF card slot	No
Multimedia card/SD card slot	combined
Special interfaces	1x special interfaces

Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	No
AS-Interface	No
Protocols (Ethernet)	
• TCP/IP	Yes
Further protocols	
• CAN	No
• Data-Highway	No
• DeviceNet	No
• EtherNet/IP	No
• INTERBUS	No
• Local Operating Network	No
• MODBUS	Yes
• SUCOnet	No
• other bus systems	Yes

Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
Suitable for safety functions	Yes
Highest safety class achievable in safety mode	
• Performance level according to ISO 13849-1	d
Use in hazardous areas	
• cULus Class I Zone 2, Division 2	No
• FM Class I Division 2	No

Ambient conditions	
Free fall	
• Fall height, max.	1.5 m
Ambient temperature during operation	
• min.	0 °C
• max.	40 °C
Ambient temperature during storage/transportation	

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• min.	-20 °C
• max.	60 °C
Relative humidity	
• Operation, max.	80 %

Operating systems	
pre-installed operating system	Windows CE

Configuration	
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	
• Configuration tool	WinCC flexible Compact Version 2005 or higher (to be ordered separately)
• WinCC flexible Compact	Yes
• WinCC flexible Standard	Yes
• WinCC flexible Advanced	Yes
• WinCC Basic (TIA Portal)	No
• WinCC Comfort (TIA Portal)	Yes
• WinCC Advanced (TIA Portal)	Yes
• WinCC Professional (TIA Portal)	Yes

Languages	
Online languages	
• Number of online/runtime languages	5
Project languages	
• Languages per project	32

Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	Sm@rtService, Sm@rtAccess
• Pocket Word	No
• Pocket Excel	No
• PDF Viewer	No
• Media Player	No
• SIMATIC WinCC Sm@rtServer	Yes
• SIMATIC WinCC Audit	No
• Connection point identification	Yes
Number of Visual Basic Scripts	No
• Debugging in the simulator	No
Task planner	Yes
Help system	Yes

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• Number of characters per info text	70
Message system	
• Number of alarm classes	32
• Number of messages	2 000
• Bit messages	Yes
— Number of bit messages	2 000
• Analog messages	Yes
— Number of analog messages	50
• Telegram message procedure Alarm S	No
• System messages HMI	Yes
• System messages PLC	No
• System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	No
• Lines	1
• Number of characters per message	80
• Number of process values per message	8
• Message indicator	Yes
• acoustic feedback	No
• First/last value	Yes
Recipe management	
• Number of recipes	100
• Data records per recipe	200
• Entries per data record	200
• Recipe memory	32 KB integrated Flash, expandable
Variables	
• Number of variables per device	1 024
• Number of variables per screen	50
• Limit values	Yes
• Multiplexing	Yes
• Structures	Yes
Images	
• Number of configurable images	500
• Permanent window/default	Yes
• Start screen configurable	Yes
• Image selection by PLC	Yes
• Image number in the PLC	Yes
Image objects	
• Text objects	2,500 text elements
• Number of I/O fields per image	50
• Index of screen context	No
• Return	Yes

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• Graphics object	Bit maps, vector graphics
Complex image objects	
• Status/control	Yes; With SIMATIC S7
• dynamic objects	Diagrams, bar graphs, sliders, invisible buttons
• Methods	Trend / profile
• Bar graphs	
— Number of bars per chart	5
• Limit value lines	Yes
• Number of visible switches per project	1 000
Attributes for dynamic objects	
• Color change	Yes
• X/Y movement	Yes
• Hide	Yes
• Angle of rotation	No
Lists	
• Number of text lists per project	300
• Number of entries per text list	30
• Number of graphics lists per project	100
Archiving	
• Number of archives per device	0
• Message archive	No
• Process value archive	No
• Archiving methods	
— Sequential archive	No
— Short-term archive	No
• Memory location	
— USB memory	No
— Ethernet	No
• Data storage format	
— CSV	No
— TXT	No
• Online evaluation	
— using trend curves	No
Security	
• Number of user groups	50
• Number of user rights	32
• Password export/import	Yes
Transfer (upload/download)	
• Transfer of configuration	Serial, Ethernet, automatic transfer recognition
Process coupling	
• Connection to controller	S7-200, S7- 300/400, Win AC, PC (TCP/IP), SIMOTION, Modicon (Modbus), see the chapter "System interfaces"

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• S7-1200	Yes; with restrictions
• S7-1500	Yes; with restrictions
• S7-200	Yes
— PPI (point-to-point)	No
— PPI network	No
— MPI	No
— PROFIBUS DP	No
— Ethernet	Yes
• S7-300/400	Yes
— MPI	No
— PROFIBUS DP	No
— PROFINET	Yes
• LOGO!	No
• SINUMERIK	Yes
• SIMOTION	Yes
• S5	No
— serial	No
— PROFIBUS DP	No
• TI 505	No
• Allen Bradley (EtherNet/IP)	Yes
• Allen Bradley (DF1)	No
• Allen Bradley (DF485)	No
• Mitsubishi (MC TCP/IP)	Yes
• Mitsubishi (FX)	No
• Mitsubishi (MP4)	No
• Telemecanique (ADJUST)	No
• Telemecanique (Uni-Telway)	No
• OMRON (FINS TCP)	No
• OMRON (LINK/Multilink)	No
• Modicon (Modbus TCP/IP)	Yes
• Modicon (Modbus)	No
• GE-Fanuc (SNP)	No
Functions	
• Key repeat	No
• TAB sequence	Yes
• Calculating functions	Yes
• Animate	Yes
• Menu tree editor	No
• Unit switchover	No
Service tools/configuration aids	
• Clean screen	No

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• Touch calibration	Yes
• Backup/Restore manually	Yes
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	Yes
• Monitoring function for battery and memory	Yes
• Trace (operation archive)	No
Expandability/openness	
• Open Platform Program	Yes

Peripherals/Options	
Peripherals	Printer
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes
SIMATIC HMI SD memory card: Secure Digital memory card	No
USB memory	No

Mechanics/material	
Enclosure material (front)	plastic

Dimensions	
Enclosure diameter	245 mm
Depth of housing	58 mm

Weights	
Weight (without packaging)	1.3 kg

Other	
free hotline	Yes

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