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Data sheet 6AV6645-0BE02-0AX0

*** spare part *** SIMATIC Mobile Panel 277 10" with integrated acknowledgment button, stop pushbutton and touch, configurable with WinCC flexible Standard Version 2008 or higher or TIA Portal V11 to V14



General information	
Product type designation	Mobile Panel 277
Customer-specific configuration	Yes
Display	
Design of display	TFT
Screen diagonal	10.4 in
Color display	Yes
Number of colors	65 536
Resolution (pixels)	
● Horizontal image resolution	800 pixel
● Vertical image resolution	600 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	50 000 h
● Backlight dimmable	Yes
Control elements	
Control elements	Touch
Keyboard fonts	
● Membrane keyboard	
— user-definable label membrane keys	No
● Function keys	
— Number of function keys	0
— Number of function keys with LEDs	0
● Keys with LED	No
● Numeric keyboard	Yes
● alphanumeric keyboard	Yes
● hexadecimal keyboard	Yes
● Multi-key operation	No
— Number of multi-key operations	0
Touch operation	
● Design as touch screen	Yes; analog, resistive
Connection type	
● Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
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

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Type of supply voltage	DC
Processor	
Processor type	ARM, 520 MHz
Memory	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
Accumulator	
Buffer battery	Yes; maximum buffer time 10 min
Main rechargeable battery	
● Number of loading cycles, min	500
● Charging time, typ.	5 h
Time of day	
Clock	
● Hardware clock (real-time)	Yes
● retentive	Yes
● synchronizable	Yes
Interfaces	
Interfaces/bus type	1x RS 422, 1x RS 485, 1x Ethernet (RJ45) (max. 12 Mbit/s)
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1
Number of USB interfaces	1
Number of wireless interfaces	0
Multimedia card/SD card slot	combined
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
AS-Interface	No
Protocols (Ethernet)	
● TCP/IP	Yes
Further protocols	
● MODBUS	Yes
● other bus systems	Yes
communication functions / header	
Wireless communication	
● supported standards	
— Radio standard WLAN 802.11	No
Standards, approvals, certificates	
Certificate of suitability	CE, cULus, C-TICK, SIBE
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 m
Ambient temperature during operation	
● min.	0 °C
● max.	40 °C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C

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Relative humidity	
● Operation, max.	80 %
Operating systems	
pre-installed operating system	Windows CE
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	
● Configuration tool	WinCC flexible Standard Version 2008 or higher (to be ordered separately)
● WinCC flexible Compact	No
● 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	16
Project languages	
● Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Applications/options	Internet Explorer, Sm@rtService, Sm@rtAccess
● Web browser	Yes
● Pocket Word	No
● Pocket Excel	No
● PDF Viewer	No
● Media Player	No
● SIMATIC WinCC Sm@rtServer	Yes
● SIMATIC WinCC Audit	Yes
● Connection point identification	Yes
Number of Visual Basic Scripts	Yes
Task planner	Yes
Help system	Yes
● Number of characters per info text	70
Message system	
● Number of alarm classes	32
● Bit messages	Yes
— Number of bit messages	4 000
● Analog messages	Yes
— Number of analog messages	4 000
● System messages HMI	Yes
● System messages PLC	Yes
● System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...)	Yes
● Lines	1
● Number of characters per message	80
● Number of process values per message	8
● Acknowledgment groups	
— Number of acknowledgement groups	99
● Message indicator	Yes
● acoustic feedback	No
● First/last value	Yes
Recipe management	
● Number of recipes	300
● Data records per recipe	500
● Entries per data record	1 000

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● Recipe memory	64 KB integrated Flash, expandable
Variables	
● Number of variables per device	2 048
● Number of variables per screen	200
● Number of variables	1 000
● Initial values	2 048
● Type Date & Time	2 048
● 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	10 000 text elements
● Number of I/O fields per image	200
● Number of date/time fields	200
● Return	Yes
● Graphics object	Bit maps, icons, vector graphics
— Icons	1 000
Complex image objects	
● Status/control	Yes; With SIMATIC S7
● dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
— Number of objects per project	1 000
— Number of curve diagrams per image	10
● Methods	Trend / profile
● Bar graphs	
— Number of bars per chart	10
● Sliders	
— Number of slides per image	10
● Pointer instruments	
— Number of analog indicators per image	10
● Limit value lines	Yes
● Number of alphanumerical fields	300
— alphanumeric fields per image	200
● Number of numerical fields	2 048
— numerical fields per image	200
● Number of password fields	2 048
● Number of visible switches per project	200
— visible switches per image	200
— hidden switches per image	200
● Number of status switches per project	200
— Number of status switches per image	200
● Number of selector switches per project	200
— Selector switches per image	200
● Number of decade switches per project	200
— Decade switches per image	200
● Number of signal lamps per project	200
— Signal lamps per image	200
Attributes for dynamic objects	
● Color change	Yes
● X/Y movement	Yes
● Hide	Yes
Lists	
● Number of text lists per project	500
● Number of text lists per image	200
● Number of entries per text list	256
● Number of graphics lists per project	400

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● Number of graphic lists per image	200
● Number of entries per graphics list	256
Archiving	
● Number of archives per device	20
● Number of measuring points per project	20
● 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	MultiMediaCard
● Data storage format	
— CSV	Yes
● Online evaluation	
— using trend curves	Yes
Filters	
● cyclic	Yes
● Tolerance	Yes
● Change	Yes
Security	
● Number of user groups	50
● Number of user rights	32
● Password export/import	Yes
Logging through printer	
● Recording/Printing	Alarms, report (shift report), color print, hardcopy, PROFINET
Transfer (upload/download)	
● Transfer of configuration	MPI/PROFIBUS DP, USB, Ethernet, automatic transfer recognition
Process coupling	
● Connection to controller	S5, S7-200, S7-300/400, TI 505, Win AC, SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), Modicon (Modbus), further non-Siemens drivers, see chapter "System interfaces"
● S7-1200	Yes
● S7-1500	Yes
● S7-200	Yes
— PPI (point-to-point)	Yes
— PPI network	Yes
— MPI	Yes
— PROFIBUS DP	Yes
— Ethernet	Yes
● S7-300/400	Yes
— MPI	Yes
— PROFIBUS DP	Yes
— PROFINET	Yes
● WinAC	Yes
● SINUMERIK	Yes
● SIMOTION	Yes
● S5	Yes
— serial	Yes
— PROFIBUS DP	Yes
● TI 505	Yes
● Allen Bradley (EtherNet/IP)	Yes
● Allen Bradley (DF1)	Yes
● Allen Bradley (DF485)	Yes
● Mitsubishi (MC TCP/IP)	Yes
● Mitsubishi (FX)	Yes
● Mitsubishi (MP4)	Yes
● Telemecanique (Uni-Telway)	Yes
● OMRON (FINS TCP)	Yes
● OMRON (LINK/Multilink)	Yes
● Modicon (Modbus TCP/IP)	Yes

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● Modicon (Modbus)	Yes
● GE-Fanuc (SNP)	Yes
Functions	
● TAB sequence	Yes
● Calculating functions	Yes
● Animate	Yes
Service tools/configuration aids	
● Clean screen	Yes
● Touch calibration	Yes
● Backup/Restore manually	Yes
● Simulation	Yes
● Device switchover	Yes
● Delta transfer	Yes
Peripherals/Options	
Peripherals	Printer, barcode reader
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes
SIMATIC HMI SD memory card: Secure Digital memory card	Yes
USB memory	Yes
Additional software components loadable	Yes
Mechanics/material	
Enclosure material (front)	plastic
Weights	
Weight (without packaging)	2.3 kg

Classifications

	Version	Classification
eClass	14	27-33-02-02
eClass	12	27-33-02-02
eClass	9.1	27-33-02-02
eClass	9	27-33-02-02
eClass	8	27-24-23-03
eClass	7.1	27-24-23-03
eClass	6	27-24-23-03
ETIM	10	EC001427
ETIM	9	EC001427
ETIM	8	EC001427
ETIM	7	EC001427
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval			Functional Saftey	Radio Equipment Type Approval Certificate
CE EG-Konf.	UKCA	Miscellaneous	Manufacturer Declaration	Type Examination Certificate	Miscellaneous

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