



*** spare part *** SIMATIC Mobile Panel 277 with integrated acknowledgment button, stop pushbutton, Handwheel, keyswitch and two illuminated push-buttons, configurable with WinCC flexible Standard Version 2005 SP1 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	7.5 in
Color display	Yes
Number of colors	65 536
Resolution (pixels)	
• Horizontal image resolution	640 pixel
• Vertical image resolution	480 pixel
Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h
Control elements	
Control elements	Keys and touch
Keyboard fonts	
• Membrane keyboard — user-definable label membrane keys	Yes
• Function keys — Number of function keys	18
— Number of function keys with LEDs	18
• Keys with LED	Yes
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
• Multi-key operation — Number of multi-key operations	2
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	Yes
• Illuminated pushbutton	Yes; Two illuminated pushbuttons
• Handwheel	Yes
Supply voltage	
Design of the power supply	via connection box
Type of supply voltage	DC

Processor	
Processor type	ARM, 520 MHz
Memory	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
Capacity of main memory, max.	128 Mbyte
Accumulator	
Buffer battery	Yes; maximum buffer time 10 min
Time of day	
Clock	
<ul style="list-style-type: none"> • Hardware clock (real-time) • retentive • synchronizable 	Yes Yes 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	1 MMC/SD card slot
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
EtherNet/IP	Yes
AS-Interface	No
Protocols (Ethernet)	
<ul style="list-style-type: none"> • TCP/IP 	Yes
Further protocols	
<ul style="list-style-type: none"> • MODBUS • other bus systems 	Yes Yes
communication functions / header	
Wireless communication	
<ul style="list-style-type: none"> • supported standards <ul style="list-style-type: none"> — 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	
<ul style="list-style-type: none"> • Performance level according to ISO 13849-1 	d
Ambient conditions	
Free fall	
<ul style="list-style-type: none"> • Fall height, max. 	1.2 m
Ambient temperature during operation	
<ul style="list-style-type: none"> • min. • max. 	0 °C 40 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • min. • max. 	-20 °C 60 °C
Relative humidity	
<ul style="list-style-type: none"> • 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 2005 SP1 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
• SIMATIC WinCC Sm@rtServer	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
• First/last value	Yes
Recipe management	
• Number of recipes	300
• Data records per recipe	500
• Entries per data record	1 000
• 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	
<ul style="list-style-type: none"> ● Text objects ● Number of I/O fields per image ● Number of date/time fields ● Return ● Graphics object <ul style="list-style-type: none"> — Icons 	<p>10 000 text elements</p> <p>200</p> <p>200</p> <p>Yes</p> <p>Bit maps, icons, vector graphics</p> <p>1 000</p>
Complex image objects	
<ul style="list-style-type: none"> ● Status/control ● dynamic objects <ul style="list-style-type: none"> — Number of objects per project — Number of curve diagrams per image ● Methods ● Bar graphs <ul style="list-style-type: none"> — Number of bars per chart ● Sliders <ul style="list-style-type: none"> — Number of slides per image ● Pointer instruments <ul style="list-style-type: none"> — Number of analog indicators per image ● Limit value lines ● Number of alphanumerical fields <ul style="list-style-type: none"> — alphanumeric fields per image ● Number of numerical fields <ul style="list-style-type: none"> — numerical fields per image ● Number of password fields ● Number of visible switches per project <ul style="list-style-type: none"> — visible switches per image — hidden switches per image ● Number of status switches per project <ul style="list-style-type: none"> — Number of status switches per image ● Number of selector switches per project <ul style="list-style-type: none"> — Selector switches per image ● Number of decade switches per project <ul style="list-style-type: none"> — Decade switches per image ● Number of signal lamps per project <ul style="list-style-type: none"> — Signal lamps per image 	<p>Yes; With SIMATIC S7</p> <p>Diagrams, bar graphs, sliders, analog display, invisible buttons</p> <p>1 000</p> <p>10</p> <p>Trend / profile</p> <p>10</p> <p>10</p> <p>10</p> <p>Yes</p> <p>300</p> <p>200</p> <p>2 048</p> <p>200</p> <p>2 048</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p> <p>200</p>
Attributes for dynamic objects	
<ul style="list-style-type: none"> ● Color change ● X/Y movement ● Hide 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Lists	
<ul style="list-style-type: none"> ● Number of text lists per project ● Number of text lists per image ● Number of entries per text list ● Number of graphics lists per project ● Number of graphic lists per image ● Number of entries per graphics list 	<p>500</p> <p>200</p> <p>256</p> <p>400</p> <p>200</p> <p>256</p>
Archiving	
<ul style="list-style-type: none"> ● Number of archives per device ● Number of measuring points per project ● Number of entries per archive ● Message archive ● Process value archive ● Archiving methods <ul style="list-style-type: none"> — Sequential archive — Short-term archive ● Memory location ● Data storage format <ul style="list-style-type: none"> — CSV ● Online evaluation <ul style="list-style-type: none"> — using trend curves 	<p>20</p> <p>20</p> <p>10 000</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>MultiMediaCard</p> <p>Yes</p> <p>Yes</p>
Filters	
<ul style="list-style-type: none"> ● cyclic ● Tolerance 	<p>Yes</p> <p>Yes</p>

• 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
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, 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
• SINUMERIK	Yes
• SIMOTION	Yes
• S5	Yes
— serial	Yes
— PROFIBUS DP	Yes
• TI 505	Yes
• Allen Bradley (DF1)	Yes
• Allen Bradley (DF485)	Yes
• Mitsubishi (FX)	Yes
• Mitsubishi (MP4)	Yes
• OMRON (LINK/Multilink)	Yes
• 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
Dimensions	
Enclosure diameter	290 mm
Depth of housing	103 mm
Weights	

Weight (without packaging)

1.7 kg

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