

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



### General information

Product type designation	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
<b>Touch operation</b>	
• Design as touch screen	Yes; analog, resistive
<b>Connection type</b>	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
<b>Special operator controls</b>	
• Stop button	Yes
• Acknowledgement button	Yes
• Key-operated switch	No
• Illuminated pushbutton	No
• Handwheel	No
<b>Supply voltage</b>	
Design of the power supply	via connection box
Type of supply voltage	DC
<b>Processor</b>	
Processor type	ARM, 520 MHz
<b>Memory</b>	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
<b>Accumulator</b>	
Buffer battery	Yes; maximum buffer time 10 min
<b>Main rechargeable battery</b>	
• Number of loading cycles, min	500
• Charging time, typ.	5 h
<b>Time of day</b>	
<b>Clock</b>	
• Hardware clock (real-time)	Yes
• retentive	Yes
• synchronizable	Yes
<b>Interfaces</b>	

Interfaces/bus type	1x RS 422, 1x RS 485, 1x Ethernet (RJ45) (max. 12 Mbit/s)
Number of RS 485 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
MPI	Yes
AS-Interface	No

### Protocols (Ethernet)

<ul style="list-style-type: none"> <li>TCP/IP</li> </ul>	Yes
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### Further protocols

<ul style="list-style-type: none"> <li>CAN</li> <li>Data-Highway</li> <li>DeviceNet</li> <li>EtherNet/IP</li> <li>INTERBUS</li> <li>Local Operating Network</li> <li>MODBUS</li> <li>SUCOnet</li> <li>other bus systems</li> </ul>	 No No No Yes No No Yes No Yes
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### Degree and class of protection

Degree of protection acc. to EN 60529	IP65
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### Standards, approvals, certificates

Certifications	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"> <li>Performance level according to ISO 13849-1</li> </ul>	d
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### Use in hazardous areas

<ul style="list-style-type: none"> <li>cULus Class I Zone 2, Division 2</li> <li>FM Class I Division 2</li> </ul>	 No No
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### Ambient conditions

#### Free fall

<ul style="list-style-type: none"> <li>Fall height, max.</li> </ul>	1 m
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#### Ambient temperature during operation

<ul style="list-style-type: none"> <li>min.</li> </ul>	0 °C
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• max.	40 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	80 %

<b>Operating systems</b>	
pre-installed operating system	Windows CE

<b>Configuration</b>	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes

<b>Configuration software</b>	
• 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

<b>Languages</b>	
<b>Online languages</b>	
• Number of online/runtime languages	16
<b>Project languages</b>	
• Languages per project	32

<b>Functionality under WinCC (TIA Portal)</b>	
Libraries	Yes
Applications/options	Internet Explorer, Sm@rtService, Sm@rtAccess
• 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
<b>Message system</b>	
• Number of alarm classes	32
• Number of messages	4 000
• 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 messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	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
<b>Recipe management</b>	
• Number of recipes	300
• Data records per recipe	500
• Entries per data record	1 000
• Recipe memory	64 KB integrated Flash, expandable
<b>Variables</b>	
• 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
<b>Images</b>	
• Number of configurable images	500
• Permanent window/default	Yes
• Start screen configurable	Yes
• Image selection by PLC	Yes
• Image number in the PLC	Yes
<b>Image objects</b>	

• 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
<b>Complex image objects</b>	
• 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
<b>Attributes for dynamic objects</b>	
• Color change	Yes
• X/Y movement	Yes
• Hide	Yes
<b>Lists</b>	
• 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
• Number of graphic lists per image	200
• Number of entries per graphics list	256
<b>Archiving</b>	
• 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
<b>Filters</b>	
• cyclic	Yes
• Tolerance	Yes
• Change	Yes
<b>Security</b>	
• Number of user groups	50
• Number of user rights	32
• Password export/import	Yes
<b>Logging through printer</b>	
• Recording/Printing	Alarms, report (shift report), color print, hardcopy, PROFINET
<b>Transfer (upload/download)</b>	
• Transfer of configuration	MPI/PROFIBUS DP, USB, Ethernet, automatic transfer recognition
<b>Process coupling</b>	
• 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
- PROFIBUS DP
- Ethernet
- S7-300/400
  - MPI
  - PROFIBUS DP
  - PROFINET
- SINUMERIK
- SIMOTION
- S5
  - serial
  - PROFIBUS DP
- TI 505
- Allen Bradley (EtherNet/IP)
- Allen Bradley (DF1)
- Allen Bradley (DF485)
- Mitsubishi (MC TCP/IP)
- Mitsubishi (FX)
- Mitsubishi (MP4)
- Telemecanique (Uni-Telway)
- OMRON (LINK/Multilink)
- Modicon (Modbus TCP/IP)
- Modicon (Modbus)
- GE-Fanuc (SNP)

Yes  
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Yes  
Yes

#### Functions

- TAB sequence
- Calculating functions
- Animate

Yes  
Yes  
Yes

#### Service tools/configuration aids

- Clean screen
- Touch calibration
- Backup/Restore manually
- Simulation
- Device switchover
- Delta transfer

Yes  
Yes  
Yes  
Yes  
Yes  
Yes

#### Peripherals/Options

##### Peripherals

- Printer
- SIMATIC HMI MM memory card: Multi Media Card

Printer, barcode reader  
Yes  
Yes



- SIMATIC HMI SD memory card: Secure Digital memory card
- USB memory

Yes

Yes

Additional software components loadable

Yes

### Mechanics/material

Enclosure material (front)

plastic

### Weights

Weight (without packaging)

2.3 kg

### Other

free hotline

Yes

**last modified:**

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