

SIMATIC MP 277 10" TOUCH STAINLESS STEEL FRONT, RETENTIV DISPLAY COVERED BY MEMBRANE, PROT. CL. FRONT IP66K, EX 2/22 10.4" TFT DISPLAY, CONFIGURABLE WITH WINCC FLEXIBLE



Figure similar

General information	
Customer-specific configuration	Yes
Display	
Design of display	TFT
Screen diagonal	10.4 in
Number of grayscales	0
Number of colors	65 536
Color type	Colors
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	Touch screen
Keyboard fonts	

<ul style="list-style-type: none"> <li>• System keys</li> </ul>	No
<ul style="list-style-type: none"> <li>• Numeric/alphabetical input</li> </ul>	Yes / Yes
<ul style="list-style-type: none"> <li>— hexadecimal keyboard</li> </ul>	Yes
<b>Touch operation</b>	
<ul style="list-style-type: none"> <li>• Design as touch screen</li> </ul>	Yes; analog, resistive
<b>Connection type</b>	
<ul style="list-style-type: none"> <li>• Connection for mouse/keyboard/barcode reader</li> </ul>	USB / USB / USB
<b>Installation type/mounting</b>	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
<b>Supply voltage</b>	
Type of supply voltage	DC
<b>Processor</b>	
Processor type	ARM
<b>Memory</b>	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
Main memory	
<ul style="list-style-type: none"> <li>• Capacity of main memory, max.</li> </ul>	128 Mbyte
<b>Time of day</b>	
<b>Clock</b>	
<ul style="list-style-type: none"> <li>• Type</li> </ul>	Hardware clock, battery backup, synchronizable
<ul style="list-style-type: none"> <li>• retentive</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• synchronizable</li> </ul>	Yes
<b>Interfaces</b>	
Interfaces/bus type	1 x RS422, 1 x RS485, 1 x Ethernet (RJ45)
Number of RS 485 interfaces	1
USB port	2 x USB
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
<b>Industrial Ethernet</b>	
<ul style="list-style-type: none"> <li>• Industrial Ethernet interface</li> </ul>	1 x Ethernet (RJ45)
<b>Protocols</b>	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
<b>Protocols (Ethernet)</b>	
<ul style="list-style-type: none"> <li>• TCP/IP</li> </ul>	Yes
<b>Further protocols</b>	

• EtherNet/IP	No
• MODBUS	Yes
• other bus systems	Yes

### Degree and class of protection

Front	IP66K, NEMA 4x, (when installed)
IP (at the front)	IP66K
IP (rear)	IP20

### Standards, approvals, certificates

Certifications	CE, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2, EX-Zone 22, NEMA 4x (Enclosure Type 4X, Type 12)
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cULus	Yes
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Suitable for safety functions	No
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### Use in hazardous areas

• FM Class I Division 2	Yes
• EX zone 2	Yes
• EX zone 22	Yes

### Ambient conditions

#### Ambient temperature during operation

• min.	0 °C
• max.	50 °C

#### Ambient temperature during storage/transportation

• min.	-20 °C
• max.	60 °C

#### Relative humidity

• Operation, max.	90 %
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### Operating systems

pre-installed operating system	Windows CE
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### Configuration

Message indicator	Yes
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Alarm system (incl. buffer and acknowledgment)	Yes
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Process value display (output)	Yes
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Process value default (input) possible	Yes
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Recipe management	Yes
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#### Configuration software

• STEP 7 Basic (TIA Portal)	No
• STEP 7 Professional (TIA Portal)	No
• 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
• Configuration tool	WinCC flexible Standard Version 2005 SP1 or higher (to be ordered separately)

## Languages

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

## Functionality under WinCC (TIA Portal)

Libraries	Yes
Task planner	Yes
Help system	Yes
• Number of characters per info text	80
Message system	
• 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	200
• 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	Yes
• 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

• 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	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 alphanumeric 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	SD and 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
<b>Transfer (upload/download)</b>	

<ul style="list-style-type: none"> <li>• Transfer of configuration</li> </ul>	MPI/PROFIBUS DP, USB, Ethernet, automatic transfer recognition
<b>Process coupling</b>	
<ul style="list-style-type: none"> <li>• Connection to controller</li> </ul>	S5, S7-200, S7-300/400, TI 505, SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), Modicon (Modbus) see chapter "System interfaces"
<ul style="list-style-type: none"> <li>• S7-1200</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-1500</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-200</li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PPI (point-to-point)</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PPI network</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— MPI</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PROFIBUS DP</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— Ethernet</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-300/400</li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— MPI</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PROFIBUS DP</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PROFINET</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S5</li> </ul>	Yes
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— PROFIBUS DP</li> </ul> </li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TI 505</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Allen Bradley (DF1)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Allen Bradley (DF485)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Mitsubishi (FX)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Mitsubishi (MP4)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Telemecanique (Uni-Telway)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• OMRON (LINK/Multilink)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Modicon (Modbus)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• GE-Fanuc (SNP)</li> </ul>	Yes
<b>Functions</b>	
<ul style="list-style-type: none"> <li>• TAB sequence</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Calculating functions</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Animate</li> </ul>	Yes
<b>Service tools/configuration aids</b>	
<ul style="list-style-type: none"> <li>• Clean screen</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Touch calibration</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Backup/Restore manually</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Simulation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Device switchover</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Delta transfer</li> </ul>	Yes
<b>Expandability/openness</b>	

- Open Platform Program

Yes

### Peripherals/Options

#### Peripherals

- SIMATIC HMI MM memory card: Multi Media Card
- SIMATIC HMI SD memory card: Secure Digital memory card
- USB memory

Printer, barcode reader

Yes

Yes

Yes

Additional software components loadable

Yes

### Dimensions

Width of the housing front

325 mm

Height of housing front

263 mm

Overall depth

61 mm

### Weights

Weight (without packaging)

4.2 kg

### Other

free hotline

Yes

Warranty period

1 y

**last modified:**

04/28/2017