

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
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	Touch screen
Keyboard fonts	
• System keys	No

• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
<b>Touch operation</b>	
• Design as touch screen	Yes; analog, resistive
<b>Connection type</b>	
• Connection for mouse/keyboard/barcode reader	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
Capacity of main memory, max.	128 Mbyte
<b>Time of day</b>	
<b>Clock</b>	
• Type	Hardware clock, battery backup, synchronizable
• retentive	Yes
• synchronizable	Yes
<b>Interfaces</b>	
Interfaces/bus type	1 x RS422, 1 x RS485, 1 x Ethernet (RJ45)
Number of RS 485 interfaces	1
Number of USB interfaces	2; Up to 1 GB respectively
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	1 x Ethernet (RJ45)
<b>Protocols</b>	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
<b>Protocols (Ethernet)</b>	
• TCP/IP	Yes
<b>Further protocols</b>	
• EtherNet/IP	No
• MODBUS	Yes

• other bus systems	Yes
<b>Degree and class of protection</b>	
IP (at the front)	IP66K
NEMA (front)	NEMA 4x (when installed)
IP (rear)	IP20
<b>Standards, approvals, certificates</b>	
Certifications	CE, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2, EX-Zone 22, NEMA 4x (Enclosure Type 4X, Type 12)
cULus	Yes
Suitable for safety functions	No
<b>Use in hazardous areas</b>	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• FM Class I Division 2	Yes
<b>Ambient conditions</b>	
<b>Ambient temperature during operation</b>	
• min.	0 °C
• max.	50 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %
<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 2005 SP1 or higher (to be ordered separately)
• 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

## 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>	
• 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, SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), Modicon (Modbus) 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
• S5	Yes
— PROFIBUS DP	Yes
• TI 505	Yes
• Allen Bradley (DF1)	Yes
• Allen Bradley (DF485)	Yes
• Mitsubishi (FX)	Yes
• Mitsubishi (MP4)	Yes
• Telemecanique (Uni-Telway)	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

#### Expandability/openness

• Open Platform Program	Yes
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#### Peripherals/Options

Peripherals	Printer, barcode reader
<ul style="list-style-type: none"> <li>• SIMATIC HMI MM memory card: Multi Media Card</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SIMATIC HMI SD memory card: Secure Digital memory card</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• USB memory</li> </ul>	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
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#### Other

free hotline	Yes
Warranty period	1 y

**last modified:** 08/12/2017