

SIMATIC MP 277 10" Touch Stainless steel front, continuous decorative film, retentive memory Degree of protection 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
Touch operation	
• Design as touch screen	Yes; analog, resistive
Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
Installation type/mounting	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Processor	
Processor type	ARM
Memory	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
Capacity of main memory, max.	128 Mbyte
Time of day	
Clock	
• Type	Hardware clock, battery backup, synchronizable
• retentive	Yes
• synchronizable	Yes
Interfaces	
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
Industrial Ethernet	
• Industrial Ethernet interface	1 x Ethernet (RJ45)
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
Protocols (Ethernet)	
• TCP/IP	Yes
Further protocols	
• EtherNet/IP	No
• MODBUS	Yes

• other bus systems	Yes
Degree and class of protection	
IP (at the front)	IP66K
NEMA (front)	NEMA 4x (when installed)
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)
cULus	Yes
Suitable for safety functions	No
Use in hazardous areas	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• FM Class I Division 2	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 %
Operating systems	
pre-installed operating system	Windows CE
Configuration	
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)
• 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

Task planner Yes

Help system

- 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
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	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
• 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	SD and 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
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) 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"> • SIMATIC HMI MM memory card: Multi Media Card 	Yes
<ul style="list-style-type: none"> • SIMATIC HMI SD memory card: Secure Digital memory card 	Yes
<ul style="list-style-type: none"> • USB memory 	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
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