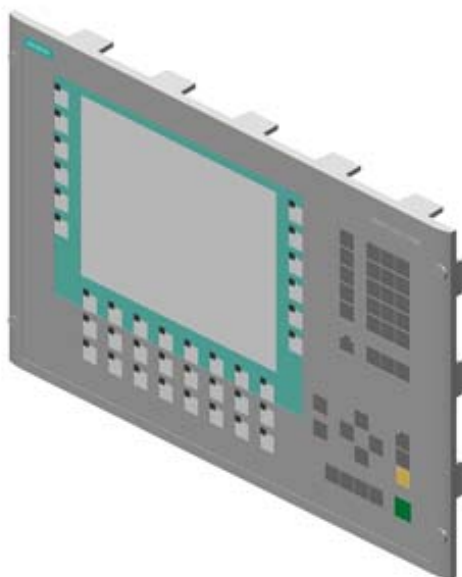




The new part, as of 01.01.2015, is blocked for delivery. Spare part can continue to be purchased as required, but price may deviate from new part. Further information under SIMATIC current entry ID: 109486162. For questions, the familiar contact persons are available to you. SIMATIC MP 277 10" Key Multi Panel with retentive memory 10.4" TFT display, 6 MB configuration memory, configurable with WinCC flexible 2008 Standard SP3 Update 5 WinCC Comfort V13 HSP

General information

Customer-specific configuration	Yes
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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
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Control elements

Control elements	Membrane keyboard
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Keyboard fonts

• Membrane keyboard	Yes
— user-definable label membrane keys	
• Function keys	

— Number of function keys	36
— Number of function keys with LEDs	28
• System keys	Yes
— Number of system keys	36
• alphanumeric keyboard	Yes
• Multi-key operation	Yes
— Number of multi-key operations	2
Touch operation	
• Design as touch screen	No
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.	64 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
Multimedia card/SD card slot	1x MultiMediaCard slot
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)	IP65
NEMA (front)	NEMA 4x (when installed)
IP (rear)	IP20
Standards, approvals, certificates	
Certifications	CE, FM Class I Div. 2, UL, cULus, EX Zone 22, NEMA 4x (Enclosure Type 4X, Type 12)
cULus	Yes
Suitable for safety functions	No
Use in hazardous areas	
• 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	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
• 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	
• 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 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
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
— Ethernet	Yes
• 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	
• Backup/Restore manually	Yes
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	Yes

Expandability/openness	
• Open Platform Program	Yes
Peripherals/Options	
Peripherals	Printer, barcode reader
• 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
Dimensions	
Width of the housing front	483 mm
Height of housing front	310 mm
Mounting cutout, width	434 mm
Mounting cutout, height	291 mm
Overall depth	60 mm
Weights	
Weight (without packaging)	4.95 kg
Other	
free hotline	Yes
Warranty period	1 y
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