

\*\*\* spare part \*\*\* SIMATIC OP 277 6" operator panel 5.7" TFT display 4 MB configuration memory, configurable with WinCC flexible 2005 Standard SP1



General information	
Product type designation	OP 277
Customer-specific configuration	Yes
Display	
Design of display	TFT
Screen diagonal	5.7 in
Color display	Yes
Number of colors	256
Resolution (pixels)	
• Horizontal image resolution	320 pixel
• Vertical image resolution	240 pixel
Backlighting	
• MTBF backlighting (at 25 °C)	60 000 h
Control elements	
Control elements	Membrane keyboard
Keyboard fonts	
• Membrane keyboard	
— user-definable label membrane keys	Yes
• Function keys	
— Number of function keys	24
— Number of function keys with LEDs	18
• System keys	Yes
— Number of system keys	36
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes; only English font can be displayed, only on screen
• Multi-key operation	Yes
— Number of multi-key operations	2
Touch operation	
• Design as touch screen	No; without
Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
Installation type/mounting	
Mounting position	vertical
Supply voltage	
Type of supply voltage	DC
Processor	
Processor type	RISC 32 bit
Memory	
Type of memory	Flash / RAM
Memory available for user data	4 Mbyte

Capacity of main memory, max.	64 Mbyte
<b>Time of day</b>	
Clock	
<ul style="list-style-type: none"> <li>Type</li> <li>retentive</li> <li>synchronizable</li> </ul>	Software clock, synchronizable, no battery backup No Yes
<b>Interfaces</b>	
Interfaces/bus type	1x RS 422, 1x RS 485, 1x Ethernet (RJ45)
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1
Number of USB interfaces	1; Up to 1 GB
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
With software interfaces	No
<b>Protocols</b>	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
EtherNet/IP	No
Protocols (Ethernet)	
<ul style="list-style-type: none"> <li>TCP/IP</li> </ul>	Yes
Further protocols	
<ul style="list-style-type: none"> <li>MODBUS</li> </ul>	Yes
<b>Degree and class of protection</b>	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	NEMA 4x (when installed)
<b>Standards, approvals, certificates</b>	
Certificate of suitability	CE, UL
Suitable for safety functions	No
<b>Ambient conditions</b>	
Ambient temperature during operation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	0 °C 50 °C
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> <li>min.</li> <li>max.</li> </ul>	-20 °C 60 °C
Relative humidity	
<ul style="list-style-type: none"> <li>Operation, max.</li> </ul>	80 %
<b>Operating systems</b>	
pre-installed operating system	Windows CE
<b>configuration / header</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
Configuration software	
<ul style="list-style-type: none"> <li>Configuration tool</li> <li>STEP 7 Basic (TIA Portal)</li> <li>STEP 7 Professional (TIA Portal)</li> <li>WinCC flexible Compact</li> <li>WinCC flexible Standard</li> <li>WinCC flexible Advanced</li> <li>WinCC Basic (TIA Portal)</li> <li>WinCC Comfort (TIA Portal)</li> <li>WinCC Advanced (TIA Portal)</li> <li>WinCC Professional (TIA Portal)</li> </ul>	WinCC flexible Standard Version 2005 SP1 or higher (to be ordered separately) No No No Yes Yes No Yes Yes Yes Yes
<b>Languages</b>	
Online languages	

• Number of online/runtime languages	16
<b>Project languages</b>	
• Languages per project	32
<b>Functionality under WinCC (TIA Portal)</b>	
Libraries	Yes
Task planner	Yes
Help system	Yes
• Number of characters per info text	80
<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 event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... )	Yes
• Lines	1
• Number of characters per message	80
• Number of process values per message	8
• Acknowledgment groups	
— Number of acknowledgement groups	Yes
• Message indicator	Yes
• 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	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	MultiMediaCard
— Ethernet	Yes
• 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
- S7-200 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
  - serial Yes
  - PROFIBUS DP Yes
- TI 505 Yes
- Allen Bradley (DF1) Yes
- Allen Bradley (DF485) Yes
- Mitsubishi (FX) Yes
- Mitsubishi (MP4) 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
Additional software components loadable	Yes

**Dimensions**

Width of the housing front	308 mm
Height of housing front	204 mm
Mounting cutout, width	281 mm
Mounting cutout, height	177 mm
Overall depth	59 mm

**Weights**

Weight (without packaging)	1.19 kg
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**Other**

free hotline	Yes
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**Classifications**

	Version	Classification
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	9	EC001412

ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06

**Approvals / Certificates**

<b>General Product Approval</b>	<b>EMV</b>	<b>Marine / Shipping</b>
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[Manufacturer Declaration](#)



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