

Technical data

Spare part SIMATIC OP 270 6" Operator panel 5.7" STN color display 2 MB configuration memory, configurable with ProTool From Version V6.0

Display

Design of display	STN, 256 colors
Screen diagonal	5.7 in
Resolution (pixels)	
• Horizontal image resolution	320 Pixel
• Vertical image resolution	240 Pixel
Backlighting	
• MTBF backlighting (at 25 °C)	40 000 h

Control elements

Control elements	Membrane keyboard
Keyboard fonts	
• Membrane keyboard	Yes
— user-definable label membrane keys	Yes
• Function keys	
— Number of function keys	24
— Number of function keys with LEDs	18
• System keys	
— Number of system keys	36
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
• Multi-key operation	Yes
Touch operation	
• Design as touch screen	No
Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
Special operator controls	
• Handwheel	No

Installation type/mounting

Mounting position	vertical
maximum permissible angle of inclination without external ventilation	35°

Supply voltage

UPS connectable (serial)	Yes
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Input current

Current consumption (rated value)	0.6 A
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Processor

Processor type	RISC 32 bit
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Memory

Type of memory	Flash / RAM
Memory available for user data	2 048 kbyte

Battery

Backup battery	
• Backup battery (optional)	Yes; optional 3.6 V
• Backup time, min.	3 y

Type of output

Info LED	Yes
Power LED	No
Error LED	No

Time of day

Clock	
• Type	Hardware clock, battery backup, synchronizable
• retentive	Yes
• synchronizable	Yes

Interfaces

Interfaces/bus type	2x RS 232, 1x RS 422, 1x RS 485 (max. 12 Mbit/s)
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USB port	Yes; 1x USB
PC card slot	No
CF card slot	1x CF card slot
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20
Standards, approvals, certificates	
Certificate of suitability	CE, GL, ABS, DNV, LRS, FM Class I Div. 2, UL, cULus, EX Zone 2/22, C-TICK
Ambient conditions	
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	
Configuration software	
• Configuration tool	ProTool Version 6 SP 3 or higher, or WinCC flexible Standard Version 2004 or higher (to be ordered separately)
Languages	
Online languages	
• Number of online/runtime languages	5
Project languages	
• Languages per project	32
Functionality under WinCC (TIA Portal)	
Libraries	Yes
Number of Visual Basic Scripts	
• Debugging in the simulator	No
Task planner	Yes
Help system	Yes
• Number of characters per info text	70
• Number of tooltips	0
Message system	
• Number of alarm classes	32
• Number of messages	4 000
• Bit messages	Yes
— Number of bit messages	2 000
• Analog messages	Yes
— Number of analog messages	2 000
• Telegram message procedure Alarm S	Yes
• System messages HMI	Yes
• System messages PLC	No
• System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	No
• Lines	1
• Number of characters per message	70
• Number of process values per message	8
• Acknowledgment groups	Yes
• Message indicator	Yes
• acoustic feedback	No
• 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	2 048

● Type Date & Time	2 048
● Limit values	Yes
● Multiplexing	Yes
● Structures	Yes
Images	
● Number of configurable images	300
● 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	30
● Index of screen context	No
● Return	Yes
● Graphics object	Bit maps, icons, vector graphics
— Icons	1 000
— Icon (full screen)	0
Complex image objects	
● Status/control	With SIMATIC S7
● dynamic objects	Diagrams, bar graphs, invisible buttons
— Number of objects per project	500
— Number of curve diagrams per image	5
● Methods	Trend
● Bar graphs	
— Number of bars per chart	10
● Sliders	
— Number of slides per image	0
● Pointer instruments	
— Number of analog indicators per image	0
● Limit value lines	Yes
● Number of alphanumeric fields	1 000
— alphanumeric fields per image	100
● Number of numerical fields	1 000
— numerical fields per image	100
● Number of password fields	1 000
● Number of visible switches per project	1 000
— visible switches per image	100
— hidden switches per image	100
● Number of status switches per project	1 000
— Number of status switches per image	100
● Number of selector switches per project	1 000
— Selector switches per image	100
● Number of decade switches per project	0
— Decade switches per image	0
● Number of signal lamps per project	1 000
— Signal lamps per image	100
Attributes for dynamic objects	
● Color change	Yes
● X/Y movement	Yes
● Hide	Yes
● Angle of rotation	No
Lists	
● Number of text lists per project	500
● Number of entries per text list	256
● Number of graphics lists per project	400
● Number of graphic lists per image	10
● Number of entries per graphics list	255
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 log, circular log, alarm log, process value archive
— Sequential archive	Yes
— Short-term archive	Yes
• Memory location	CF card, Ethernet
— PC card	No
— CF card	Yes
— USB memory	No
— Ethernet	Yes
• Data storage format	CSV file, readable, e.g. with MS Excel, MS Access
— CSV	Yes
— TXT	No
• external evaluation	readable, e.g. with MS Excel, MS Access, etc.
• Size of archive	depending on free memory on ext. card/stick or on free hard disk space via network drive
• Online evaluation	via trends
— 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, serial, USB, Ethernet, automatic transfer recognition
Process coupling	
• Connection to controller	S5, S7-200, S7- 300/400, TI 505, Win AC, PC (TCP/IP), SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), Telemecanique (ADJUST), OMRON (LINK/Multilink), Modicon (Modbus), for further non-Siemens drivers, see section on "System interfaces"
• S7-200	Yes
— PPI (point-to-point)	Yes
— PPI network	No
— MPI	Yes
— PROFIBUS DP	Yes
• S7-300/400	Yes
— MPI	Yes
— PROFIBUS DP	Yes
— PROFINET	No
• S5	Yes
— serial	Yes
— PROFIBUS DP	Yes
• TI 505	Yes
• Allen Bradley (DF1)	Yes
• Allen Bradley (DF485)	Yes
• Mitsubishi (FX)	Yes
• Mitsubishi (MP4)	Yes
• Telemecanique (ADJUST)	Yes
• Telemecanique (Uni-Telway)	Yes
• OMRON (LINK/Multilink)	Yes
• Modicon (Modbus)	Yes
• GE-Fanuc (SNP)	Yes
Functions	
• Key repeat	No
• TAB sequence	Yes
• Calculating functions	Yes
• Animate	Yes

● Menu tree editor	No
● Unit switchover	No
Service tools/configuration aids	
● Clean screen	No
● Touch calibration	No
● Backup/Restore manually	Yes
● Simulation	Yes
● Device switchover	Yes
● Delta transfer	Yes
● Monitoring function for battery and memory	Yes
● Trace (operation archive)	No
Expandability/openness	
● Open Platform Program	Yes
Peripherals/Options	
Peripherals	Printer, barcode reader
Dimensions	
Width of the housing front	308 mm
Height of housing front	204 mm
Overall depth	59 mm
Weights	
Weight (without packaging)	1 kg
Other	
free hotline	Yes
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