

SIMATIC Mobile Panel 277 with integrated acknowledgement button, stop button, Handwheel, key-operated switch and Two illuminated pushbuttons, configurable with WinCC flexible Standard Version 2005 SP1 or higher or TIA Portal V11 or higher



General information	
Customer-specific configuration	Yes
Display	
Design of display	TFT
Screen diagonal	7.5 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	Keys and touch
Keyboard fonts	
• Membrane keyboard	Yes
— user-definable label membrane keys	
• Function keys	

— Number of function keys	18
— Number of function keys with LEDs	18
• Keys with LED	Yes
• System keys	Yes
• Numeric keyboard	Yes
• alphanumeric keyboard	Yes
• hexadecimal keyboard	Yes
• Multi-key operation	Yes
— Number of multi-key operations	2
Touch operation	
• Design as touch screen	Yes; analog, resistive
Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
Special operator controls	
• Stop button	Yes
• Acknowledgement button	Yes
• Key-operated switch	Yes
• Illuminated pushbutton	Yes; Two illuminated pushbuttons
• Handwheel	Yes
Supply voltage	
Design of the power supply	via connection box
Type of supply voltage	DC
Processor	
Processor type	ARM, 520 MHz
Memory	
Type of memory	Flash / RAM
Memory available for user data	6 Mbyte
Capacity of main memory, max.	128 Mbyte
Time of day	
Clock	
• Hardware clock (real-time)	Yes
• retentive	Yes
• synchronizable	Yes
Interfaces	
Interfaces/bus type	1 x RS422, 1 x RS485, 1 x Ethernet (RJ45) (max. 12 Mbit/s)
Number of RS 485 interfaces	1
• Transmission rate, max.	12 Mbit/s
Number of USB interfaces	1
Number of parallel interfaces	0

Number of wireless interfaces	0
Multimedia card/SD card slot	1 MMC/SD card slot
Industrial Ethernet	
• Industrial Ethernet interface	1 x Ethernet (RJ45)
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
AS-Interface	No
Protocols (Ethernet)	
• TCP/IP	Yes
Further protocols	
• CAN	No
• Data-Highway	No
• DeviceNet	No
• INTERBUS	No
• Local Operating Network	No
• MODBUS	Yes
• SUCOnet	No
• other bus systems	Yes
Degree and class of protection	
Degree of protection acc. to EN 60529	IP65
Standards, approvals, certificates	
Certifications	CE, cULus, C-TICK, SIBE
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
Suitable for safety functions	Yes
Highest safety class achievable in safety mode	
• Performance level according to ISO 13849-1	d
Ambient conditions	
Free fall	
• Fall height, max.	1.2 m
Ambient temperature during operation	
• min.	0 °C
• max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	

- Operation, max.

80 %

Operating systems

pre-installed operating system	Windows CE
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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)
• 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
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Project languages

• Languages per project	32
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Functionality under WinCC (TIA Portal)

Libraries	Yes
Applications/options	Internet Explorer, Sm@rtService, Sm@rtAccess
• Connection point identification	Yes
Number of Visual Basic Scripts	Yes
Task planner	Yes
Help system	Yes
• Number of characters per info text	70

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	4 000
• 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	
— Number of acknowledgement groups	99
• 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	Yes; 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 — Short-term archive • Memory location • Data storage format — CSV • Online evaluation — using trend curves	Yes Yes MultiMediaCard Yes Yes
Filters	
• cyclic • Tolerance • Change	Yes Yes Yes
Security	
• Number of user groups • Number of user rights • Password export/import	50 32 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), further non-Siemens drivers, see chapter "System interfaces"
• S7-1200 • S7-1500 • S7-200 — PPI (point-to-point) — PPI network — MPI — PROFIBUS DP — Ethernet • S7-300/400 — MPI — PROFIBUS DP — PROFINET • S5 — serial — PROFIBUS DP • TI 505	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 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	
• Clean screen	Yes
• Touch calibration	Yes
• Backup/Restore manually	Yes
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	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
Mechanics/material	
Enclosure material (front)	plastic
Dimensions	
Enclosure diameter	290 mm
Depth of housing	103 mm
Weights	
Weight (without packaging)	1.7 kg
Other	
free hotline	Yes
Warranty period	1 y
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