



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 377 12" Touch Multi Panel, Windows CE 5.0 12" color TFT display 12 MB configuration memory configurable from WinCC flexible 2007

General information	
Product type designation	MP377 12" touch
Customer-specific configuration	No
Product function	
Protection function	
Engineering with	
Integrated drive control	
Operating mode	
Operator control and monitoring	
Process images	
User administration	
Alarms	
Recipes/user archives	
Display	
Design of display	TFT
Screen diagonal	12.1 in
Color display	Yes
Number of colors	65 536
Line display	
Resolution (pixels)	
<ul style="list-style-type: none"> • Horizontal image resolution • Vertical image resolution 	800 pixel 600 pixel
General features	
Backlighting	
<ul style="list-style-type: none"> • MTBF backlighting (at 25 °C) 	50 000 h
Control elements	
Control elements	Touch screen
Input device	
Keyboard fonts	
<ul style="list-style-type: none"> • Function keys <ul style="list-style-type: none"> — Number of function keys • System keys • Numeric keyboard • alphanumeric keyboard • hexadecimal keyboard 	0 No Yes Yes Yes
Touch operation	
<ul style="list-style-type: none"> • Design as touch screen 	Yes; analog, resistive

Connection type	
• Type of connection for mouse/keyboard/barcode reader	USB / USB / USB
Special operator controls	
Frame size/design	
Ergonomics	
Installation type/mounting	
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Line frequency	
Mains filter	
Mains buffering	
Load voltage L+	
Digital inputs	
Load voltage 1L+	
Load voltage 2L+	
Load voltage L1	
Auxiliary voltage 1L+, load voltage 2L+	
Input voltage	
Input voltage acc. to VDE	
Input voltage acc. to UL	
Line frequency	
Input current	
Current consumption (rated value)	1.5 A
Output current	
horizontal installation	
vertical installation	
Encoder supply	
Output current	
5 V encoder supply	
24 V encoder supply	
Additional 24 V encoder supply	
Power	
Active power input, typ.	36 W
Memory	
Type of memory	Flash / RAM
Memory available for user data	12 288 kbyte
Work memory	
Working memory for additional functions	
Battery	
Design	
CPU-blocks	
DB	
FB	
FC	
Counters, timers and their retentivity	
S7 counter	
IEC counter	
S7 times	
Data areas and their retentivity	
Flag	
Address area	
I/O address area	
of which distributed	
per integrated IO subsystem	

Process image	
Subprocess images	
Digital channels	
Analog channels	
Addressing volume	
Hardware configuration	
Formation of potential groups	
Module exchange	
Interface modules	
Number of DP masters	
Number of IO Controllers	
Number of operable FMs and CPs (recommended)	
Expansion modules	
Rack	
Submodules	
Selection of BaseUnit for connection variants	
PtP CM	
Time of day	
Clock	
<ul style="list-style-type: none"> • Type • retentive • synchronizable 	<p>Hardware clock, battery backup, synchronizable</p> <p>Yes</p> <p>Yes</p>
Operating hours counter	
Time switching clocks	
Digital inputs	
Number of simultaneously controllable inputs	
all mounting positions	
horizontal installation	
Digital input functions, parameterizable	
Input voltage	
Input current	
for 10 k switched contact	
Internal preparation time	
Input delay (for rated value of input voltage)	
for standard inputs	
for interrupt inputs	
Encoder connection	
Connection method	
Digital outputs	
Digital output functions, parameterizable	
Control supply voltage	
Switching capacity of the outputs	
Load resistance range	
Trend key points E	
Output voltage	
Output current	
Output delay with resistive load	
Parallel switching of two outputs	
Switching frequency	
Total current of the outputs	
horizontal installation	
Total current of the outputs (per group)	
all mounting positions	
horizontal installation	
vertical installation	
Total current of the outputs (per module)	
all mounting positions	
horizontal installation	

Pulse output (passive)	
Frequency output	
Relay outputs	
Integrated high-speed cams	
Analog inputs	
Input ranges	
Measuring range	
Input ranges (rated values), voltages	
Input ranges (rated values), currents	
Input ranges (rated values), thermocouples	
Input ranges (rated values), resistance thermometer	
Input ranges (rated values), resistors	
Input ranges (rated values), strain gauges (full bridges)	
Thermocouple (TC)	
Characteristic linearization	
Analog outputs	
Output ranges, voltage	
Output ranges, current	
Connection of actuators	
Load impedance (in rated range of output)	
Analog value generation for the inputs	
Integration and conversion time/resolution per channel	
Analog value generation for the outputs	
Integration and conversion time/resolution per channel	
Encoder	
Connection of signal encoders	
Connectable encoders	
Incremental encoder	
Encoder signals, incremental encoder (symmetrical)	
Encoder signals, incremental encoder (asymmetrical)	
Encoder signals, absolute encoder (SSI)	
Encoder signals, IEPE	
Drive axis	
EC motor	
Errors/accuracies	
Operational error limit in overall temperature range	
Basic error limit (operational limit at 25 °C)	
Power electronics	
Control of heating elements	
Load connection type	
Setpoint input	
Heating power	
Interfaces	
Interfaces/bus type	1x RS 422, 1x RS 485, 2x Ethernet (RJ45)
Number of industrial Ethernet interfaces	2
Number of RS 485 interfaces	1
Number of RS 422 interfaces	1
Number of USB interfaces	2; Up to 1 GB respectively
CF card slot	1x CF card slot
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
Video interfaces	
Touch interfaces	
MPI	
PROFIBUS DP	
PROFIBUS PA	
Supports protocol for PROFINET IO	
PROFINET functions	

Industrial Ethernet
Point-to-point connection
Integrated protocol driver
Telegram length, max.
Transmission rate, 20 mA (TTY)
Transmission rate, RS 422/485
Transmission speed, RS 232
Signals
ET-Connection
EtherNet/IP
AS-Interface
WLAN
1. Interface
Interface types
Protocols
MPI
PROFIBUS DP master
Services
PROFIBUS DP slave
PROFINET IO Controller
Services
Update time for IRT
PROFINET IO Device
Services
PROFINET CBA
Open IE communication
CAN
BACnet
2. Interface
Interface types
Protocols
PROFIBUS DP master
Services
PROFIBUS DP slave
PROFINET IO Controller
Services
Update time for IRT
PROFINET IO Device
Services
PROFINET CBA
3. Interface
Interface types
Protocols
PROFIBUS DP master
Services
PROFIBUS DP slave
PROFINET IO Controller
PROFINET IO Device
Services
PROFINET CBA
4. Interface
Interface types
Protocols
PROFIBUS DP master
PROFINET IO Controller
Interface types
RJ 45 (Ethernet)
RS 232

RS 485	
RS 422	
USB port	
Protocols	
Supports protocol for PROFINET IO	Yes
PROFIsafe	No
PROFIBUS	Yes
EtherNet/IP	Yes
MPI	Yes
Protocols (USB)	
Protocols (Ethernet)	
• TCP/IP	Yes
Protocols (terminal link)	
• Sm@rtServer	Yes
Number of connections	
PROFINET IO Device	
Redundancy mode	
SIMATIC communication	
EtherNet/IP	
Services	
Updating times	
Redundancy mode	
Open IE communication	
Web server	
PROFIBUS DP	
PROFIdrive	
DALI	
Integrated protocols	
Freeport	
3964 (R)	
OPC UA	
Further protocols	
• MODBUS	Yes
• other bus systems	Yes
Communication functions	
Global data communication	
S7 basic communication	
S7 communication	
LOGO! communication	
S5 compatible communication	
Standard communication (FMS)	
PROFINET CBA (at set setpoint communication load)	
Remote interconnections with acyclic transmission	
Remote interconnections with cyclic transmission	
iPAR server	
Number of connections	
Test commissioning functions	
Status/control	
Forcing	
Diagnostic buffer	
Interrupts/diagnostics/status information	
Alarms	
Integrated Functions	
Monitoring functions	
Safety monitoring functions	
Counting functions	
Load cell	
Position detection	

Control technology
Step-by-step controllers
Pulse generator
Measuring functions
Operating mode for measured value acquisition
Measuring range
Accuracy
Measuring inputs for voltage
Measuring inputs for current
Measuring inputs for current (Rog. or I/U converter)
Error limits
Counter
Counting mode
External gate counters
Counter input 5 V
Counter input 24 V
Drive interface
Signal Input
Potential separation
Potential separation digital inputs
Potential separation digital outputs
Potential separation analog inputs
Potential separation analog outputs
Potential separation channels
Potential separation valve outputs
Potential separation counter
Potential separation controller
EMC
Interference immunity against discharge of static electricity
Interference immunity against high-frequency electromagnetic fields
Interference immunity to cable-borne interference
Interference immunity against voltage surge
Interference immunity against conducted variable disturbance induced by high-frequency fields
Interference immunity to magnetic fields
Emission of radio interference acc. to EN 55 011
• Limit class A, for use in industrial areas
Yes
Emission of radio interference acc. to EN 55 022
Degree and class of protection
IP (at the front)
IP65
NEMA (front)
NEMA 4, NEMA 12 (when installed)
Standards, approvals, certificates
CE mark
Yes
UL approval
Yes
cULus
Yes
Suitable for safety functions
No
Highest safety class achievable in safety mode
Highest safety class achievable for safety-related tripping of standard modules
Highest safety class achievable for deactivated dark test
Use in hazardous areas
• ATEX Zone 2
No; certificate no longer available as of 1 October 2020
• ATEX Zone 22
No; certificate no longer available as of 1 October 2020
• FM Class I Division 2
Yes
Ambient conditions
Free fall
Ambient temperature during operation
• min.
0 °C
• max.
50 °C

Operation (vertical installation)	
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Air pressure acc. to IEC 60068-2-13	
Relative humidity	
• Operation, max.	90 %
Vibrations	
Shock testing	
Resistance	
Coolants and lubricants	
Use on land craft, rail vehicles and special-purpose vehicles	
Use on ships/at sea	
Fire resistance	
Hardware requirement	
Processor	
Graphic	
Operating systems	
pre-installed operating system	Windows CE
pre-installed operating system	
Runs under operating system	
Software	
Preinstalled	
Software functions	
Multi-user system	
Runtime software	
Runtime	
Block	
Adjustable parameters	
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	
Configuration software	
• Configuration tool	WinCC flexible Standard Version 2007 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
Script languages (Runtime)	
Programming	
Programming language	
Configuration examples	
Software libraries	
Know-how protection	
Access protection	
Languages	
Online languages	
• Number of online/runtime languages	16

Configuration languages	
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	70
Multiproject	
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
• Telegram message procedure Alarm S	Yes
• 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
• Message indicator	Yes
• First/last value	Yes
Recipe management	
• Number of recipes	500
• Data records per recipe	1 000
• Entries per data record	1 000
• Recipe memory	128 KB integrated Flash, expandable
Variables	
• Number of variables per device	4 096; Configuration with WinCC flexible 2008 and higher
• Number of variables per screen	400
• Number of variables	2 000
• 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	30 000 text elements
• Number of I/O fields per image	400
• Number of date/time fields	400
• Return	Yes
• Graphics object	Bit maps, icons, vector graphics
— Icons	2 000
Complex image objects	
• Status/control	With SIMATIC S7
• dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
— Number of objects per project	2 000
— Number of curve diagrams per image	20

<ul style="list-style-type: none"> • Methods 	Trend / profile
<ul style="list-style-type: none"> • Bar graphs <ul style="list-style-type: none"> — Number of bars per chart 	20
<ul style="list-style-type: none"> • Sliders <ul style="list-style-type: none"> — Number of slides per image 	20
<ul style="list-style-type: none"> • Pointer instruments <ul style="list-style-type: none"> — Number of analog indicators per image 	20
<ul style="list-style-type: none"> • Limit value lines 	Yes
<ul style="list-style-type: none"> • Number of alphanumerical fields <ul style="list-style-type: none"> — alphanumeric fields per image 	300 400
<ul style="list-style-type: none"> • Number of numerical fields <ul style="list-style-type: none"> — numerical fields per image 	2 048 400
<ul style="list-style-type: none"> • Number of password fields 	2 048
<ul style="list-style-type: none"> • Number of visible switches per project <ul style="list-style-type: none"> — visible switches per image — hidden switches per image 	400 400 400
<ul style="list-style-type: none"> • Number of status switches per project <ul style="list-style-type: none"> — Number of status switches per image 	400 400
<ul style="list-style-type: none"> • Number of selector switches per project <ul style="list-style-type: none"> — Selector switches per image 	400 400
<ul style="list-style-type: none"> • Number of signal lamps per project <ul style="list-style-type: none"> — Signal lamps per image 	400 400
Attributes for dynamic objects	
<ul style="list-style-type: none"> • Color change 	Yes
<ul style="list-style-type: none"> • X/Y movement 	Yes
<ul style="list-style-type: none"> • Hide 	Yes
Lists	
<ul style="list-style-type: none"> • Number of text lists per project 	500
<ul style="list-style-type: none"> • Number of text lists per image 	400
<ul style="list-style-type: none"> • Number of entries per text list 	256
<ul style="list-style-type: none"> • Number of graphics lists per project 	500
<ul style="list-style-type: none"> • Number of graphic lists per image 	400
<ul style="list-style-type: none"> • Number of entries per graphics list 	256
Archiving	
<ul style="list-style-type: none"> • Number of archives per device 	50
<ul style="list-style-type: none"> • Number of measuring points per project 	50
<ul style="list-style-type: none"> • Number of entries per archive 	50 000
<ul style="list-style-type: none"> • Message archive 	Yes
<ul style="list-style-type: none"> • Process value archive 	Yes
<ul style="list-style-type: none"> • Archiving methods <ul style="list-style-type: none"> — Sequential archive — Short-term archive 	Sequential log, circular log, alarm log, process value archive Yes Yes
<ul style="list-style-type: none"> • Memory location <ul style="list-style-type: none"> — CF card — Ethernet 	CF card, SD/MMC card, Ethernet, USB memory stick Yes Yes
<ul style="list-style-type: none"> • Data storage format <ul style="list-style-type: none"> — CSV 	CSV file, readable, e.g. with MS Excel, MS Access Yes
<ul style="list-style-type: none"> • external evaluation 	readable, e.g. with MS Excel, MS Access, etc.
<ul style="list-style-type: none"> • Size of archive 	depending on free memory on ext. card/stick or on free hard disk space via network drive
<ul style="list-style-type: none"> • Online evaluation <ul style="list-style-type: none"> — using trend curves 	via trends Yes
Filters	
<ul style="list-style-type: none"> • cyclic 	Yes
<ul style="list-style-type: none"> • Tolerance 	Yes
<ul style="list-style-type: none"> • Change 	Yes
Security	
<ul style="list-style-type: none"> • Number of user groups 	50
<ul style="list-style-type: none"> • Number of user rights 	32

• Password export/import	Yes
Data carrier support	
• CF card	Yes
• Hard disk	Yes
Logging through printer	
• Recording/Printing	Alarms, report (shift report), color print, hardcopy
Character sets	
Transfer (upload/download)	
• Transfer of configuration	MPI/PROFIBUS DP, serial, USB, Ethernet, by means of external storage medium, 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), OMRON (LINK/Multilink), Modicon (Modbus), further non-Siemens drivers, 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
• 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
Functionality under WinCC Unified	
Parameter set management (recipes)	
Image objects	
Peripherals/Options	
Peripherals	Printer, card reader, 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
Connection method	
ET-Connection	
Terminals	
Connection I/O signals	
Conductor cross-section in mm ²	
Conductor cross-section acc. to AWG	
Dimensions	
Width of the housing front	335 mm
Height of housing front	275 mm
Mounting cutout, width	310 mm
Mounting cutout, height	248 mm
Overall depth	72 mm
Weights	
Weight (without packaging)	3.8 kg
Other	
Data for selecting a voltage transformer	

last modified:

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