

SIMATIC MP 377 15" TOUCH STAINLESS STEEL FRONT,  
RETENTIV DISPLAY COVERED BY MEMBRANE, PROT. CL.  
FRONT IP66K, EX 2/22 15" TFT DISPLAY, CONFIGURABLE WITH  
WINCC FLEXIBLE



| Display                              |                            |
|--------------------------------------|----------------------------|
| Design of display                    | TFT                        |
| Screen diagonal                      | 15 in                      |
| Color display                        | Yes                        |
| Number of colors                     | 65 536                     |
| Resolution (pixels)                  |                            |
| • Horizontal image resolution        | 1 024 Pixel                |
| • Vertical image resolution          | 768 Pixel                  |
| Backlighting                         |                            |
| • MTBF backlighting (at 25 °C)       | 50 000 h                   |
| Control elements                     |                            |
| Control elements                     | Touch screen               |
| Keyboard fonts                       |                            |
| • Membrane keyboard                  | No<br><br>Yes<br>Yes<br>No |
| — user-definable label membrane keys |                            |
| • alphanumeric keyboard              |                            |
| • hexadecimal keyboard               |                            |
| • Multi-key operation                |                            |

|                                                                       |                                                            |
|-----------------------------------------------------------------------|------------------------------------------------------------|
| — Number of multi-key operations                                      | 0                                                          |
| <b>Touch operation</b>                                                |                                                            |
| • Design as touch screen                                              | Yes; analog, resistive                                     |
| <b>Connection type</b>                                                |                                                            |
| • Connection for mouse/keyboard/barcode reader                        | USB / USB / USB                                            |
| <b>Installation type/mounting</b>                                     |                                                            |
| maximum permissible angle of inclination without external ventilation | 35°                                                        |
| <b>Input current</b>                                                  |                                                            |
| Current consumption (rated value)                                     | 1.7 A; Typical                                             |
| Starting current inrush I <sup>2</sup> t                              | 4 A <sup>2</sup> ·s                                        |
| <b>Power</b>                                                          |                                                            |
| Active power input, typ.                                              | 41 W                                                       |
| <b>Memory</b>                                                         |                                                            |
| Type of memory                                                        | Flash / RAM                                                |
| Memory available for user data                                        | 12 288 kbyte                                               |
| <b>Time of day</b>                                                    |                                                            |
| <b>Clock</b>                                                          |                                                            |
| • Type                                                                | Hardware clock, battery backup, synchronizable             |
| • retentive                                                           | Yes; via Goldkap for at least 6 weeks                      |
| • synchronizable                                                      | Yes                                                        |
| <b>Interfaces</b>                                                     |                                                            |
| Interfaces/bus type                                                   | 1 x RS422, 1 x RS485, 2 x Ethernet (RJ45) (max. 12 Mbit/s) |
| Number of RS 485 interfaces                                           | 1                                                          |
| • Transmission rate, max.                                             | 12 Mbit/s                                                  |
| Number of USB interfaces                                              | 2; Up to 1 GB respectively                                 |
| PC card slot                                                          | No                                                         |
| CF card slot                                                          | 1 x CF card slot                                           |
| Multimedia card/SD card slot                                          | 1x Multimedia Card slot, up to 128 MB                      |
| <b>Industrial Ethernet</b>                                            |                                                            |
| • Industrial Ethernet interface                                       | 2 x Ethernet (RJ45)                                        |
| <b>Protocols</b>                                                      |                                                            |
| PROFIBUS                                                              | Yes                                                        |
| MPI                                                                   | Yes                                                        |
| <b>Protocols (Ethernet)</b>                                           |                                                            |
| • TCP/IP                                                              | Yes                                                        |
| <b>Protocols (terminal link)</b>                                      |                                                            |
| • Sm@rtServer                                                         | Yes                                                        |
| <b>EMC</b>                                                            |                                                            |

|                                                   |                                                                                                                                                                                                                                                |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emission of radio interference acc. to EN 55 011  |                                                                                                                                                                                                                                                |
| • Limit class A, for use in industrial areas      | Yes                                                                                                                                                                                                                                            |
| Degree and class of protection                    |                                                                                                                                                                                                                                                |
| IP (at the front)                                 | IP66K                                                                                                                                                                                                                                          |
| IP (rear)                                         | IP20                                                                                                                                                                                                                                           |
| Standards, approvals, certificates                |                                                                                                                                                                                                                                                |
| Certifications                                    | CE, FM Class I Div. 2, UL, cULus, EX Zone 2, EX Zone 22, C-TICK                                                                                                                                                                                |
| cULus                                             | Yes                                                                                                                                                                                                                                            |
| EAC (formerly Gost-R)                             | No                                                                                                                                                                                                                                             |
| EMC                                               | The product is designed for use in industrial environments. When used in residential areas, the emission of radio interference according to limit class B of EN 55011 must be ensured. For further information refer to the user documentation |
| Marine approval                                   |                                                                                                                                                                                                                                                |
| • Germanischer Lloyd (GL)                         | No                                                                                                                                                                                                                                             |
| • American Bureau of Shipping (ABS)               | No                                                                                                                                                                                                                                             |
| • Bureau Veritas (BV)                             | No                                                                                                                                                                                                                                             |
| • Det Norske Veritas (DNV)                        | No                                                                                                                                                                                                                                             |
| • Lloyds Register of Shipping (LRS)               | No                                                                                                                                                                                                                                             |
| • Polski Rejestr Statkow (PRS)                    | No                                                                                                                                                                                                                                             |
| Use in hazardous areas                            |                                                                                                                                                                                                                                                |
| • ATEX Zone 2                                     | Yes                                                                                                                                                                                                                                            |
| • ATEX Zone 22                                    | Yes                                                                                                                                                                                                                                            |
| • FM Class I Division 2                           | Yes                                                                                                                                                                                                                                            |
| 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                                     |                                                                                                                                                                                                                                                |
| 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 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                                                                       |

## Languages

|                                      |    |
|--------------------------------------|----|
| Online languages                     |    |
| • Number of online/runtime languages | 16 |
| 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                                         | 4 000 |
| • Analog messages                                                | Yes   |
| — Number of analog messages                                      | 4 000 |
| • 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     |
| • Acknowledgment groups                                          | Yes   |
| • Message indicator                                              | Yes   |

|                                      |                                                                  |
|--------------------------------------|------------------------------------------------------------------|
| • acoustic feedback                  | No                                                               |
| • First/last value                   | Yes                                                              |
| <b>Recipe management</b>             |                                                                  |
| • Number of recipes                  | 500                                                              |
| • Data records per recipe            | 1 000                                                            |
| • Entries per data record            | 1 000                                                            |
| • Recipe memory                      | 128 KB integrated Flash, expandable                              |
| <b>Variables</b>                     |                                                                  |
| • 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                                                              |
| <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                       | 30000 text elements                                              |
| • Number of I/O fields per image     | 400                                                              |
| • Number of date/time fields         | 400                                                              |
| • Index of screen context            | No                                                               |
| • Return                             | Yes                                                              |
| • Graphics object                    | Bit maps, icons, vector graphics                                 |
| — Icons                              | 2 000                                                            |
| — Icon (full screen)                 | 0                                                                |
| <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      | 2 000                                                            |
| — Number of curve diagrams per image | 20                                                               |
| • Methods                            | Trend / profile                                                  |
| • Bar graphs                         |                                                                  |
| — Number of bars per chart           | 20                                                               |
| • Sliders                            |                                                                  |
| — Number of slides per image         | 20                                                               |

|                                           |        |
|-------------------------------------------|--------|
| • Pointer instruments                     |        |
| — Number of analog indicators per image   | 20     |
| • Limit value lines                       | Yes    |
| • Number of alphanumeric fields           | 300    |
| — alphanumeric fields per image           | 400    |
| • Number of numerical fields              | 2 048  |
| — numerical fields per image              | 400    |
| • Number of password fields               | 2 048  |
| • Number of visible switches per project  | 400    |
| — visible switches per image              | 400    |
| — hidden switches per image               | 400    |
| • Number of status switches per project   | 400    |
| — Number of status switches per image     | 400    |
| • Number of selector switches per project | 400    |
| — Selector switches per image             | 400    |
| • Number of decade switches per project   | 0      |
| — Decade switches per image               | 0      |
| • Number of signal lamps per project      | 400    |
| — Signal lamps per image                  | 400    |
| 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 text lists per image          | 400    |
| • Number of entries per text list         | 256    |
| • Number of graphics lists per project    | 500    |
| • Number of graphic lists per image       | 400    |
| • Number of entries per graphics list     | 256    |
| Archiving                                 |        |
| • Number of archives per device           | 50     |
| • Number of measuring points per project  | 50     |
| • Number of entries per archive           | 50 000 |
| • Message archive                         | Yes    |
| • Process value archive                   | Yes    |
| • Archiving methods                       | Yes    |
| — Sequential archive                      | Yes    |
| — Short-term archive                      | Yes    |
| • Memory location                         | Yes    |

|                                   |                                                                                                                                                                                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| — CF card                         | Yes                                                                                                                                                                                                                                           |
| — USB memory                      | No                                                                                                                                                                                                                                            |
| — Ethernet                        | Yes                                                                                                                                                                                                                                           |
| • Data storage format             | Yes                                                                                                                                                                                                                                           |
| — CSV                             | Yes                                                                                                                                                                                                                                           |
| — TXT                             | No                                                                                                                                                                                                                                            |
| • external evaluation             | Yes                                                                                                                                                                                                                                           |
| • Size of archive                 | Yes                                                                                                                                                                                                                                           |
| • Online evaluation               | Yes                                                                                                                                                                                                                                           |
| — 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>Data carrier support</b>       |                                                                                                                                                                                                                                               |
| • PC card                         | No                                                                                                                                                                                                                                            |
| • CF card                         | Yes                                                                                                                                                                                                                                           |
| • Hard disk                       | Yes; Only USB hard disks with external power supply                                                                                                                                                                                           |
| <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, serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition                                                                                                                                   |
| <b>Process coupling</b>           |                                                                                                                                                                                                                                               |
| • 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                                  |
| — serial                                                 | No                                   |
| — PROFIBUS DP                                            | Yes                                  |
| • TI 505                                                 | Yes                                  |
| • Allen Bradley (DF1)                                    | Yes                                  |
| • Allen Bradley (DF485)                                  | Yes                                  |
| • Mitsubishi (FX)                                        | Yes                                  |
| • Mitsubishi (MP4)                                       | Yes                                  |
| • Telemecanique (ADJUST)                                 | No                                   |
| • Telemecanique (Uni-Telway)                             | Yes                                  |
| • OMRON (LINK/Multilink)                                 | Yes                                  |
| • Modicon (Modbus)                                       | Yes                                  |
| • GE-Fanuc (SNP)                                         | Yes                                  |
| <b>Functions</b>                                         |                                      |
| • Key repeat                                             | No                                   |
| • TAB sequence                                           | Yes                                  |
| • Calculating functions                                  | Yes                                  |
| • Animate                                                | Yes                                  |
| • Menu tree editor                                       | No                                   |
| • Unit switchover                                        | No                                   |
| <b>Service tools/configuration aids</b>                  |                                      |
| • Clean screen                                           | Yes                                  |
| • Touch calibration                                      | Yes                                  |
| • Backup/Restore manually                                | Yes                                  |
| • Simulation                                             | Yes                                  |
| • Device switchover                                      | Yes                                  |
| • Delta transfer                                         | Yes                                  |
| • Monitoring function for battery and memory             | Yes                                  |
| • Trace (operation archive)                              | No                                   |
| <b>Expandability/openness</b>                            |                                      |
| • Open Platform Program                                  | Yes                                  |
| <b>Peripherals/Options</b>                               |                                      |
| 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                                  |



#### Dimensions

|                            |        |
|----------------------------|--------|
| Width of the housing front | 400 mm |
| Height of housing front    | 310 mm |
| Overall depth              | 75 mm  |

#### Weights

|                            |        |
|----------------------------|--------|
| Weight (without packaging) | 6.2 kg |
|----------------------------|--------|

**last modified:** 08/12/2017