

SIMATIC MOBILE PANEL 277 W. INTEGRATED ENABLING BUTTON, STOP BUTTON, HANDWHEEL, KEY SWITCH AND TWO ILLUMINATED PUSHBUTTON, CONFIGURABLE W. WINCC FLEXIBLE STANDARD VERSION 2005 SP1 AND HIGHER OR TIA PORTAL V11 AND HIGHER



## General information

**Customer-specific configuration** Yes

## Display

**Design of display** TFT

**Screen diagonal** 7.5 in

**Size** 7.5"

**Display type** TFT, 65536 colors

**Number of colors** 65536

**Number of greyscales** 65536

**Color type** Colors

## Resolution (pixels)

**Horizontal image resolution** 640

**Vertical image resolution** 480

**Resolution (WxH in pixel)** 640 x 480

## Backlighting

**MTBF backlighting (at 25 °C)** about 50,000 hours

**MTBF backlighting (at 25 °C)** 50000 h

## Control elements

**Operating options** Keys and Touch

|   |  |
|---|--|
| <b>Function keys, programmable</b>                  | 18 function keys, 18 with LEDs                 |
| <b>Connection for mouse/keyboard/barcode reader</b> | USB / USB / USB                                |
| <b>Keyboard fonts</b>                               |  |
| <b>Number of function keys</b>                      | 18   |
| <b>Keys with LED</b>                                | Yes  |
| <b>freely inscribable membrane keys</b>             | Yes  |
| <b>Number of function keys with LEDs</b>            | 18   |
| <b>Multi-key operation</b>                          | Yes  |
| <b>Number of multi-key operations</b>               | 2  |
| <b>System keys</b>                                  | Yes  |
| <b>Number of configurable system keys</b>           | 18   |
| <b>Numeric/alphabetical input</b>                   | Yes / Yes                                      |
| <b>hexadecimal keyboard</b>                         | Yes  |
| <b>Touch operation</b>                              |  |
| <b>Touch screen</b>                                 | Analog, resistive                              |
| <b>Design as touch screen</b>                       | Yes  |
| <b>Touch screen (analog/resistive)</b>              | Yes  |
| <b>Special operator controls</b>                    |  |
| <b>Stop button</b>                                  | Yes  |
| <b>Acknowledgement button</b>                       | Yes  |
| <b>Key-operated switch</b>                          | Yes  |
| <b>Illuminated pushbutton</b>                       | Yes ; Two illuminated pushbuttons              |
| <b>Handwheel</b>                                    | Yes  |
| <b>Supply voltage</b>                               |  |
| <b>Supply voltage</b>                               | via connection box                             |
| <b>Processor</b>                                    |  |
| <b>Processor</b>                                    | ARM, 520 MHz                                   |
| <b>Processor type</b>                               | ARM  |
| <b>Memory</b>                                       |  |
| <b>Type</b>   | Flash / RAM                                    |
| <b>Usable memory for user data</b>                  | 6 MB usable memory for user data               |
| <b>Main memory</b>                                  |  |
| <b>Capacity of main memory, maximum</b>             | 128 Mbyte                                      |
| <b>Time of day</b>                                  |  |
| <b>Clock</b>  |  |
| <b>Type</b>   | Hardware clock, battery backup, synchronizable |
| <b>Hardware clock (real-time clock)</b>             | Yes  |
| <b>Battery-backed</b>                               | Yes  |

|   |  |
|---|--|
| <b>Synchronizable</b>   | Yes  |
| <b>Interfaces</b>   |  |
| <b>Interfaces</b>   | 1 x RS422, 1 x RS485, 1 x Ethernet (RJ45) (max. 12 Mbit/s) |
| <b>Number of RS 485 interfaces</b>                              | 1  |
| <b>Transmission rate, max.</b>                                  | 12 Mbit/s  |
| <b>USB port</b>   | 1 x USB  |
| <b>Number of USB interfaces</b>                                 | 1  |
| <b>Multi Media Card slot</b>                                    | 1 MMC/SD card slot   |
| <b>Number of parallel interfaces</b>                            | 0  |
| <b>Industrial Ethernet</b>                                      |  |
| <b>Industrial Ethernet interface</b>                            | 1 x Ethernet (RJ45)  |
| <b>Protocols</b>  |  |
| <b>PROFINET</b>   | Yes  |
| <b>Supports protocol for PROFINET IO</b>                        | Yes  |
| <b>Supports protocol for PROFI-safe</b>                         | No   |
| <b>PROFIBUS</b>   | Yes  |
| <b>Protocols (Ethernet)</b>                                     |  |
| <b>TCP/IP</b>   | Yes  |
| <b>Further protocols</b>  |  |
| <b>AS-i</b>   | No   |
| <b>CAN</b>  | No   |
| <b>INTERBUS</b>   | No   |
| <b>MODBUS</b>   | Yes  |
| <b>Data highway</b>   | No   |
| <b>DeviceNet</b>  | No   |
| <b>Local Operating Network</b>                                  | No   |
| <b>SUCOnet</b>  | No   |
| <b>other bus systems</b>  | Yes  |
| <b>Degree and class of protection</b>                           |  |
| <b>IP65 enclosure</b>   | Yes  |
| <b>Standards, approvals, certificates</b>                       |  |
| <b>Certifications</b>   | CE, cULus, C-TICK, SIBE                                    |
| <b>Highest safety class achievable in safety mode</b>           |  |
| <b>Performance Level in accordance with EN ISO 13849-1:2008</b> | d  |
| <b>Ambient conditions</b>                                       |  |
| <b>Drop height</b>  | 1.2 m  |
| <b>Operating temperature</b>                                    |  |
| <b>Operation</b>  | 0 °C to +40 °C   |

|   |   |
|---|---|
| <b>Storage/transport temperature</b>                        |   |
| Transport, storage  | -20 °C to +60 °C  |
| <b>Relative humidity</b>                                    |   |
| max. relative humidity                                      | 80 %  |
| <b>Operating systems</b>                                    |   |
| Operating system  | Windows CE  |
| <b>Configuration</b>  |   |
| Message indicator   | Yes   |
| With alarm logging system (incl. buffer and acknowledgment) | Yes   |
| Process value display (output)                              | Yes   |
| Process value default (input) possible                      | Yes   |
| Recipe administration                                       | Yes   |
| <b>Configuration software</b>                               |   |
| 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   |
| Configuration tool  | WinCC flexible Standard Version 2005 SP1 or higher (to be ordered separately) |
| 2nd configuration kit                                       | WinCC flexible Standard   |
| Version   | Version 2005 SP 1   |
| Configuration tool  | WinCC flexible  |
| Type  | Standard  |
| <b>Languages</b>  |   |
| <b>Online languages</b>                                     |   |
| Number of online/runtime languages                          | 16  |
| <b>Languages</b>  |   |
| Languages per project                                       | 32  |
| <b>Functionality under WinCC (TIA Portal)</b>               |   |
| 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   | 4000                               |
| Bit messages   | Yes                                |
| Analog messages  | Yes                                |
| Number of bit messages   | 4000                               |
| Number of analog messages                                      | 4000                               |
| System messages HMI  | Yes                                |
| System messages PLC  | Yes                                |
| System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes                                |
| Message length (in characters)                                 | 80                                 |
| Lines  | 1                                  |
| Number of process values per message                           | 8                                  |
| Acknowledgment groups  | 99                                 |
| Message indicator  | Yes                                |
| First/last value   | Yes                                |
| Recipe administration  |                                    |
| Number of recipes  | 300                                |
| Data records per recipe  | 500                                |
| Entries per data record  | 1000                               |
| Recipe memory  | 64 KB integrated Flash, expandable |
| Variables  |                                    |
| Number of variables per device                                 | 2048                               |
| Number of variables per screen                                 | 200                                |
| Number of variables  | 1000                               |
| Initial values   | 2048                               |
| Limit values   | Yes                                |
| Multiplexing   | Yes                                |
| Structs  | Yes                                |
| Type Date & Time   | 2048                               |
| 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               |

|  |  |
|--|--|
| <b>Fields per image</b>                        | 200  |
| <b>Date/time fields</b>                        | 200  |
| <b>Return</b>                                  | Yes  |
| <b>Graphics object</b>                         | Bit maps, icons, vector graphics                                 |
| <b>Icons</b>                                   | 1000   |
| <b>Complex image objects</b>                   |  |
| <b>Status/control</b>                          | With SIMATIC S7  |
| <b>dynamic objects</b>                         | Diagrams, bar graphs, sliders, analog display, invisible buttons |
| <b>Number of objects per project</b>           | 1000   |
| <b>Number per image</b>                        | 10   |
| <b>Methods</b>                                 | Trend / profile  |
| <b>Limit value lines</b>                       | Yes  |
| <b>Number of bars per chart</b>                | 10   |
| <b>Limit value lines</b>                       | Yes  |
| <b>alphanumeric fields</b>                     | 300  |
| <b>alphanumeric fields per image</b>           | 200  |
| <b>numerical fields</b>                        | 2048   |
| <b>numerical fields per image</b>              | 200  |
| <b>Password errors</b>                         | 2048   |
| <b>Number of slides per image</b>              | 10   |
| <b>Number of analog indicators per image</b>   | 10   |
| <b>Number of visible switches per project</b>  | 200  |
| <b>visible switches per image</b>              | 200  |
| <b>hidden switches per image</b>               | 200  |
| <b>Number of status switches per project</b>   | 200  |
| <b>Button status switches per image</b>        | 200  |
| <b>Number of selector switches per project</b> | 200  |
| <b>Selector switches per image</b>             | 200  |
| <b>Number of decade switches per project</b>   | 200  |
| <b>Decade switches per image</b>               | 200  |
| <b>Number of signal lamps per project</b>      | 200  |
| <b>Signal lamps per image</b>                  | 200  |
| <b>Attributes for dynamic objects</b>          |  |
| <b>Color change</b>                            | Yes  |
| <b>X/Y movement</b>                            | Yes  |
| <b>Hide</b>                                    | Yes  |
| <b>Lists</b>                                   |  |
| <b>Number of text lists per project</b>        | 500  |
| <b>Number of text lists per image</b>          | 200  |

|   |  |
|---|--|
| <b>Number of entries per text list</b>        | 256  |
| <b>Number of graphics lists per project</b>   | 400  |
| <b>Number of graphic lists per image</b>      | 200  |
| <b>Number of entries per graphics list</b>    | 256  |
| <b>Archiving</b>                              |  |
| <b>Number of archives per device</b>          | 20   |
| <b>Number of measuring points per project</b> | 20   |
| <b>Number of entries per archive</b>          | 10000  |
| <b>Message archive</b>                        | Yes  |
| <b>Process value archive</b>                  | Yes  |
| <b>Archiving methods</b>                      |  |
| <b>Sequential archive</b>                     | Yes  |
| <b>Short-term archive</b>                     | Yes  |
| <b>Memory location</b>                        | Multi Media Card   |
| <b>Data storage format</b>                    |  |
| <b>CSV</b>                                    | Yes  |
| <b>Online evaluation</b>                      |  |
| <b>Using trend curves</b>                     | Yes  |
| <b>Filters</b>                                |  |
| <b>cyclic</b>                                 | Yes  |
| <b>Tolerance</b>                              | Yes  |
| <b>Change</b>                                 | Yes  |
| <b>Security</b>                               |  |
| <b>Number of user groups</b>                  | 50   |
| <b>Number of user rights</b>                  | 32   |
| <b>Password export/import</b>                 | Yes  |
| <b>Logging through printer</b>                |  |
| <b>Recording/Printing</b>                     | Alarms, report (shift report), color print, hardcopy   |
| <b>Transfer (upload/download)</b>             |  |
| <b>Transfer of configuration</b>              | MPI/PROFIBUS DP, USB, Ethernet, automatic transfer recognition   |
| <b>Process coupling</b>                       |  |
| <b>Connection to controller</b>               | S5, S7-200, S7- 300/400, TI 505, SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), Modicon (Modbus), weitere Fremdtreiber siehe Kapitel "Systemkopplungen" |
| <b>S7-1200</b>                                | Yes  |
| <b>S7-1500</b>                                | Yes  |
| <b>S7-200</b>                                 | Yes  |
| <b>PPI (point-to-point)</b>                   | Yes  |
| <b>PPI network</b>                            | Yes  |

|  |                         |
|--|-------------------------|
| <b>MPI</b>   | Yes                     |
| <b>PROFIBUS DP</b>   | Yes                     |
| <b>Ethernet</b>  | Yes                     |
| <b>S7-300/400</b>  | Yes                     |
| <b>MPI</b>   | Yes                     |
| <b>PROFIBUS DP</b>   | Yes                     |
| <b>PROFINET</b>  | Yes                     |
| <b>S5</b>  | Yes                     |
| <b>serial</b>  | Yes                     |
| <b>PROFIBUS DP</b>   | Yes                     |
| <b>TI 505</b>  | Yes                     |
| <b>Allen Bradley (DF1)</b>                                 | Yes                     |
| <b>Allen Bradley (DF485)</b>                               | Yes                     |
| <b>Mitsubishi (FX)</b>                                     | Yes                     |
| <b>Mitsubishi (MP4)</b>                                    | Yes                     |
| <b>OMRON (LINK/Multilink)</b>                              | Yes                     |
| <b>Modicon (Modbus)</b>                                    | Yes                     |
| <b>GE-Fanuc (SNP)</b>                                      | Yes                     |
| <b>Functions</b>   |                         |
| <b>TAB sequence</b>  | Yes                     |
| <b>Calculating functions</b>                               | Yes                     |
| <b>Animate</b>   | Yes                     |
| <b>Service tools/configuration aids</b>                    |                         |
| <b>Clean screen</b>  | Yes                     |
| <b>Touch calibration</b>                                   | Yes                     |
| <b>Backup/restore</b>                                      | Yes                     |
| <b>Simulation</b>  | Yes                     |
| <b>Device switchover</b>                                   | Yes                     |
| <b>Delta transfer</b>                                      | Yes                     |
| <b>I/O / Options</b>                                       |                         |
| <b>I/O devices</b>   | Printer, barcode reader |
| <b>MultiMediaCard</b>                                      | Yes                     |
| <b>SD card</b>   | Yes                     |
| <b>USB memory</b>  | Yes                     |
| <b>Additional software components loadable</b>             | Yes                     |
| <b>Connection method</b>                                   |                         |
| <b>Design of electrical connection, plug-in connection</b> | 1                       |
| <b>Mechanics/material</b>                                  |                         |
| <b>Type of housing (front)</b>                             | Plastic                 |



| Dimensions                  |                       |
|-----------------------------|-----------------------|
| Housing diameter/depth (mm) | Dia 290 mm / D 103 mm |
| Weights                     |                       |
| Weight (without packaging)  | 1.7 kg                |
| other                       |                       |
| free hotline                | Yes                   |
| Warranty period             | 1 a                   |
| Status                      | Jan 23, 2014          |