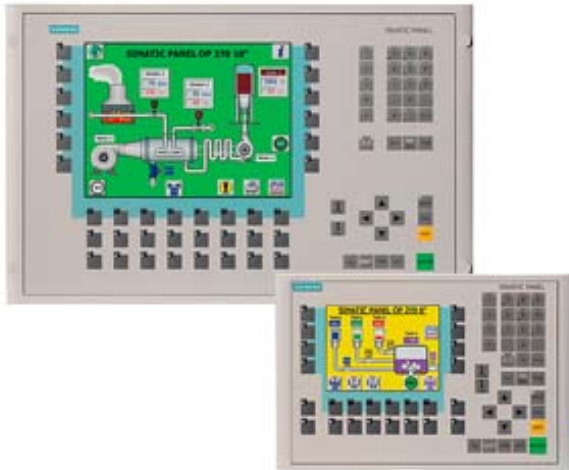


\*\*\*Spare part\*\*\* SIMATIC MP 270B Key Multi Panel 10.4" TFT display 4 MB configuration memory, configurable with ProTool From Version V6.0



| Display                              |                   |
|--------------------------------------|-------------------|
| Design of display                    | TFT, 256 colors   |
| Screen diagonal                      | 10.4 in           |
| 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                     | Membrane keyboard |
| Keyboard fonts                       |                   |
| • Membrane keyboard                  | Yes               |
| — user-definable label membrane keys | Yes               |
| • Function keys                      |                   |
| — Number of function keys            | 36                |
| — Number of function keys with LEDs  | 28                |
| • System keys                        |                   |
| — Number of system keys              | 38                |

|   |                       |
|---|-----------------------|
| • Numeric keyboard  | Yes                   |
| • alphanumeric keyboard   | Yes                   |
| • hexadecimal keyboard  | Yes                   |
| • Multi-key operation   | Yes                   |
| — Number of multi-key operations                                      | 28                    |
| <b>Touch operation</b>  |                       |
| • Design as touch screen  | No                    |
| <b>Connection type</b>  |                       |
| • Type of connection for mouse/keyboard/barcode reader                | USB / USB / USB       |
| <b>Special operator controls</b>                                      |                       |
| • Illuminated pushbutton  | Yes                   |
| <b>Installation type/mounting</b>                                     |                       |
| Mounting position   | vertical              |
| maximum permissible angle of inclination without external ventilation | 35°                   |
| <b>Supply voltage</b>   |                       |
| UPS connectable (serial)  | Yes                   |
| <b>Input current</b>  |                       |
| Current consumption (rated value)                                     | 0.9 A                 |
| Starting current inrush I <sup>2</sup> t                              | 0.5 A <sup>2</sup> ·s |
| <b>Power</b>  |                       |
| Active power input, typ.  | 22 W                  |
| <b>Processor</b>  |                       |
| Processor type  | RISC 32-bit           |
| <b>Drives</b>   |                       |
| Diskette drive  | No                    |
| CD-ROM  | No                    |
| Hard disk   | No                    |
| <b>Memory</b>   |                       |
| Type of memory  | Flash / RAM           |
| Memory available for user data  | 4 096 kbyte           |
| <b>Battery</b>  |                       |
| <b>Backup battery</b>   |                       |
| • Backup battery (optional)   | Yes; optional 3.6 V   |
| • Backup time, min.   | 3 y                   |
| <b>Type of output</b>   |                       |
| Info LED  | Yes                   |
| Power LED   | No                    |

|  |  |
|--|--|
| Error LED  | Yes  |
| <b>Time of day</b>   |  |
| <b>Clock</b>   |  |
| <ul style="list-style-type: none"> <li>• Type</li> </ul>                               | Hardware clock, battery backup, synchronizable   |
| <ul style="list-style-type: none"> <li>• retentive</li> </ul>                          | Yes  |
| <ul style="list-style-type: none"> <li>• synchronizable</li> </ul>                     | Yes  |
| <b>Interfaces</b>  |  |
| Interfaces/bus type  | 2 x RS232, 1 x RS422, 1 x RS485, 1 x Ethernet (RJ45) (max. 12 Mbit/s)  |
| Number of RS 485 interfaces  | 1  |
| <ul style="list-style-type: none"> <li>• Transmission rate, max.</li> </ul>            | 12 Mbit/s  |
| USB port   | Yes; 1 x USB   |
| PC card slot   | 1 x PC card slot   |
| CF card slot   | 1 x CF card slot   |
| <b>Industrial Ethernet</b>   |  |
| <ul style="list-style-type: none"> <li>• Industrial Ethernet interface</li> </ul>      | 1 x Ethernet (RJ45)  |
| <b>Degree and class of protection</b>  |  |
| IP (at the front)  | IP65   |
| IP (rear)  | IP20   |
| <b>Standards, approvals, certificates</b>  |  |
| Certifications   | CE, GL, ABS, DNV, LRS, FM Class I Div. 2, cULus, EX Zone 2/22, C-TICK  |
| <b>Ambient conditions</b>  |  |
| <b>Ambient temperature during storage/transportation</b>                               |  |
| <ul style="list-style-type: none"> <li>• min.</li> </ul>                               | -20 °C   |
| <ul style="list-style-type: none"> <li>• max.</li> </ul>                               | 60 °C  |
| <b>Relative humidity</b>   |  |
| <ul style="list-style-type: none"> <li>• Operation, max.</li> </ul>                    | 90 %   |
| <b>Operating systems</b>   |  |
| pre-installed operating system   | Windows CE   |
| <b>Configuration</b>   |  |
| <b>Configuration software</b>  |  |
| <ul style="list-style-type: none"> <li>• Configuration tool</li> </ul>                 | ProTool Version 6 SP 3 or higher, or WinCC flexible Standard Version 2004 or higher (to be ordered separately) |
| <b>Languages</b>   |  |
| <b>Online languages</b>  |  |
| <ul style="list-style-type: none"> <li>• Number of online/runtime languages</li> </ul> | 5  |
| <b>Project languages</b>   |  |
| <ul style="list-style-type: none"> <li>• Languages per project</li> </ul>              | 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                                  |
| <b>Message system</b>  |                                    |
| • 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                               | 70                                 |
| • 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  | 300                                |
| • Data records per recipe  | 500                                |
| • Entries per data record  | 1 000                              |
| • Recipe memory  | 64 KB integrated Flash, expandable |
| <b>Variables</b>   |                                    |
| • 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                                |
| <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                            | 10,000 text elements   |
| • Number of I/O fields per image          | 200  |
| • Number of date/time fields              | 200  |
| • Index of screen context                 | No   |
| • Return                                  | Yes  |
| • Graphics object                         | Bit maps, icons, vector graphics                                 |
| — Icons                                   | 1 000  |
| — 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           | 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 alphanumerical 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  |
| <b>Attributes for dynamic objects</b>    |  |
| • Color change                           | Yes  |
| • X/Y movement                           | Yes  |
| • Hide                                   | Yes  |
| • Angle of rotation                      | No   |
| <b>Lists</b>                             |  |
| • 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  |
| <b>Archiving</b>                         |  |
| • 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                      | Sequence archive, circular log, alarm log, process value archive                         |
| — Sequential archive                     | Yes  |
| — Short-term archive                     | Yes  |
| • Memory location                        | PC card, CF card, Ethernet   |
| — PC card                                | Yes  |
| — 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  |
| <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>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), 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                     | Yes   |
| — MPI                             | Yes   |
| — PROFIBUS DP                     | Yes   |
| • S7-300/400                      | Yes   |
| — MPI                             | Yes   |
| — PROFIBUS DP                     | Yes   |
| — PROFINET                        | Yes   |
| • 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   |
| <b>Functions</b>                  |   |
| • 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 | 483 mm |
| Height of housing front    | 310 mm |
| Overall depth              | 55 mm  |

| Weights                    |      |
|----------------------------|------|
| Weight (without packaging) | 6 kg |

| Other                 |            |
|-----------------------|------------|
| free hotline          | Yes        |
| Warranty period       | 1 y        |
| <b>last modified:</b> | 05/17/2018 |