

AS OF 2015-01-01 THE PRODUCT IS BLOCKED FOR DELIVERY AND IS NO LONGER AVAILABLE AS A NEW PART. INFORMATION ABOUT SUCCESSOR SEE SIMATIC UPDATE ID: 62977695 FOR FURTHER QUESTIONS PLEASE APPROACH YOUR SIEMENS CONTACT PERSON. SIMATIC OPERATOR PANEL OP77B BACKLIT LC DISPLAY, 4.5" DISPL. W. GRAPHICS CAPABIL MPI-/PROFIBUS-DP INTERFACE UPTO 12 MB, PRINTER/USB INTERFACE, SLOT FOR MMC CARD, FOR CONFIGURATION OF WINCC FLEXIBLE 2004 COMPACT



Figure similar

| General information             |                   |
|---------------------------------|-------------------|
| Customer-specific configuration | No                |
| Display                         |                   |
| Design of display               | STN               |
| Screen diagonal                 | 4.5 in            |
| Number of grayscales            | 0                 |
| Number of colors                | 2                 |
| Color type                      | Black/white       |
| Resolution (pixels)             |                   |
| • Horizontal image resolution   | 160 Pixel         |
| • Vertical image resolution     | 64 Pixel          |
| Backlighting                    |                   |
| • MTBF backlighting (at 25 °C)  | 100 000 h         |
| Control elements                |                   |
| Control elements                | Membrane keyboard |
| Keyboard fonts                  |                   |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Membrane keyboard <ul style="list-style-type: none"> <li>— user-definable label membrane keys</li> </ul> </li> <li>• Function keys <ul style="list-style-type: none"> <li>— Number of function keys</li> <li>— Number of function keys with LEDs</li> </ul> </li> <li>• System keys</li> <li>• Numeric/alphabetical input <ul style="list-style-type: none"> <li>— hexadecimal keyboard</li> </ul> </li> <li>• Multi-key operation</li> </ul> | <p>Yes</p> <p>Yes</p> <p>8</p> <p>4</p> <p>Yes</p> <p>Yes / Yes</p> <p>Yes</p> <p>Yes</p> |
| <b>Touch operation</b>   |   |
| <ul style="list-style-type: none"> <li>• Design as touch screen</li> </ul>   | No  |
| <b>Connection type</b>   |   |
| <ul style="list-style-type: none"> <li>• Connection for mouse/keyboard/barcode reader</li> </ul>   | - / - / -   |
| <b>Installation type/mounting</b>  |   |
| Mounting position  | vertical  |
| maximum permissible angle of inclination without external ventilation  | 80°   |
| <b>Supply voltage</b>  |   |
| Type of supply voltage   | DC  |
| <b>Input current</b>   |   |
| Current consumption (rated value)  | 0.2 A   |
| Starting current inrush I <sup>2</sup> t   | 0.5 A <sup>2</sup> ·s   |
| <b>Processor</b>   |   |
| Processor type   | ARM   |
| <b>Memory</b>  |   |
| Type of memory   | Flash / RAM   |
| Memory available for user data   | 1 000 kbyte   |
| <b>Type of output</b>  |   |
| Info LED   | Yes   |
| Power LED  | No  |
| Error LED  | No  |
| <b>Time of day</b>   |   |
| <b>Clock</b>   |   |
| <ul style="list-style-type: none"> <li>• Type</li> <li>• retentive</li> <li>• synchronizable</li> </ul>  | <p>Software clock, no battery backup</p> <p>No</p> <p>No</p>                              |
| <b>Interfaces</b>  |   |
| Interfaces/bus type  | 1 x RS232, 1 x RS422, 1 x RS485 (max. 12 Mbit/s)  |

|   |   |
|---|---|
| Number of RS 485 interfaces               | 1   |
| • Transmission rate, max.                 | 12 Mbit/s   |
| USB port                                  | 1 x USB   |
| Multimedia card/SD card slot              | combined  |
| <b>Industrial Ethernet</b>                |   |
| • Industrial Ethernet interface           | No  |
| <b>Protocols</b>                          |   |
| Supports protocol for PROFINET IO         | No  |
| PROFIsafe                                 | No  |
| PROFIBUS                                  | Yes   |
| <b>Protocols (Ethernet)</b>               |   |
| • TCP/IP                                  | No  |
| <b>Further protocols</b>                  |   |
| • EtherNet/IP                             | No  |
| • MODBUS                                  | No  |
| • other bus systems                       | Yes   |
| <b>Degree and class of protection</b>     |   |
| Front                                     | IP65, NEMA 4x, NEMA 12 (when installed)   |
| IP (at the front)                         | IP65  |
| IP (rear)                                 | IP20  |
| <b>Standards, approvals, certificates</b> |   |
| Certifications                            | CE, GL, ABS, BV, DNV, LRS, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2 (in Vorbereitung), EX-Zone 22 (in Vorbereitung), C-TICK, NEMA 4x, NEMA 12 |
| cULus                                     | Yes   |
| EAC (formerly Gost-R)                     | No  |
| Suitable for safety functions             | No  |
| <b>Marine approval</b>                    |   |
| • Germanischer Lloyd (GL)                 | Yes   |
| • American Bureau of Shipping (ABS)       | Yes   |
| • Bureau Veritas (BV)                     | Yes   |
| • Det Norske Veritas (DNV)                | Yes   |
| • Lloyds Register of Shipping (LRS)       | Yes   |
| • Nippon Kaiji Kyokai (Class NK)          | Yes   |
| • Polski Rejestr Statkow (PRS)            | No  |
| <b>Use in hazardous areas</b>             |   |
| • FM Class I Division 2                   | Yes   |
| • EX zone 2                               | Yes   |
| • EX zone 22                              | Yes   |
| <b>Ambient conditions</b>                 |   |
| Ambient temperature during operation      |   |

|  |        |
|--|--------|
| • min.   | 0 °C   |
| • max.   | 50 °C  |
| <b>Ambient temperature during storage/transportation</b> |        |
| • min.   | -20 °C |
| • max.   | 60 °C  |
| <b>Relative humidity</b>                                 |        |
| • Operation, max.  | 90 %   |

|                                |            |
|--------------------------------|------------|
| <b>Operating systems</b>       |            |
| pre-installed operating system | Windows CE |

|  |  |
|--|--|
| <b>Configuration</b>                           |  |
| Message indicator                              | Yes  |
| Alarm system (incl. buffer and acknowledgment) | Yes  |
| Process value display (output)                 | Yes  |
| Process value default (input) possible         | Yes  |
| Recipe management                              | Yes  |
| <b>Configuration software</b>                  |  |
| • STEP 7 Basic (TIA Portal)                    | No   |
| • STEP 7 Professional (TIA Portal)             | No   |
| • WinCC flexible Compact                       | Yes  |
| • 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 Compact Version 2004 or higher (to be ordered separately) |

|                                      |    |
|--------------------------------------|----|
| <b>Languages</b>                     |    |
| <b>Online languages</b>              |    |
| • Number of online/runtime languages | 5  |
| <b>Project languages</b>             |    |
| • Languages per project              | 32 |

|   |       |
|---|-------|
| <b>Functionality under WinCC (TIA Portal)</b> |       |
| Libraries                                     | Yes   |
| Task planner                                  | Yes   |
| Help system                                   | Yes   |
| • Number of characters per info text          | 320   |
| <b>Message system</b>                         |       |
| • Number of alarm classes                     | 32    |
| • Number of messages                          | 1 000 |
| • Bit messages                                | Yes   |

|  |                                     |
|--|-------------------------------------|
| — Number of bit messages   | 1 000                               |
| • Analog messages  | Yes                                 |
| — Number of analog messages                                      | 1 000                               |
| • Telegram message procedure Alarm S                             | Yes                                 |
| • System messages HMI  | Yes                                 |
| • System messages PLC  | Yes                                 |
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | No                                  |
| • Number of characters per message                               | 80                                  |
| • Number of process values per message                           | 8                                   |
| • Acknowledgment groups  | Yes                                 |
| • Message indicator  | No                                  |
| • acoustic feedback  | No                                  |
| • First/last value   | Yes                                 |
| <b>Recipe management</b>   |                                     |
| • Number of recipes  | 100                                 |
| • Data records per recipe  | 200                                 |
| • Entries per data record  | 200                                 |
| • Recipe memory  | 32 KB integrated Flash, expandable  |
| <b>Variables</b>   |                                     |
| • Number of variables per device                                 | 1 000                               |
| • Number of variables per screen                                 | 30                                  |
| • Limit values   | Yes                                 |
| • Multiplexing   | 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   | 2,500 text elements                 |
| • Number of I/O fields per image                                 | 30                                  |
| • Number of date/time fields                                     | 0                                   |
| • Index of screen context  | No                                  |
| • Return   | Yes                                 |
| • Graphics object  | Bit maps, icons, icon (full-screen) |
| — Icons  | 1 000                               |
| — Icon (full screen)   | 100                                 |
| <b>Complex image objects</b>                                     |                                     |
| • dynamic objects  | Bar graphs                          |

|   |   |
|---|---|
| • Bar graphs                              |   |
| — Number of bars per chart                | 5   |
| • Pointer instruments                     |   |
| — Number of analog indicators per image   | 0   |
| • Limit value lines                       | Yes   |
| • Number of alphanumeric fields           | 1 000   |
| — alphanumeric fields per image           | 30  |
| • Number of numerical fields              | 1 000   |
| — numerical fields per image              | 30  |
| • Number of password fields               | 0   |
| • Number of visible switches per project  |   |
| — visible switches per image              | 0   |
| — hidden switches per image               | 0   |
| • Number of status switches per project   |   |
| — Number of status switches per image     | 0   |
| • Number of selector switches per project |   |
| — Selector switches per image             | 0   |
| • Number of decade switches per project   |   |
| — Decade switches per image               | 0   |
| • Number of signal lamps per project      |   |
| — Signal lamps per image                  | 0   |
| <b>Attributes for dynamic objects</b>     |   |
| • Color change                            | Yes   |
| • X/Y movement                            | No  |
| • Hide                                    | Yes   |
| • Angle of rotation                       | No  |
| <b>Lists</b>                              |   |
| • Number of text lists per project        | 300   |
| • Number of graphics lists per project    | 0   |
| • Number of graphic lists per image       | 0   |
| • Number of entries per graphics list     | 0   |
| <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), hardcopy   |
| <b>Transfer (upload/download)</b>         |   |
| • Transfer of configuration               | MPI/PROFIBUS DP, serial, USB, 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, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), OMRON (LINK/Multilink), Modicon (Modbus), further non-Siemens drivers, see chapter "System interfaces" |
| • S7-200                     | Yes   |
| — PPI (point-to-point)       | Yes   |
| — PPI network                | Yes   |
| — MPI                        | Yes   |
| — PROFIBUS DP                | Yes   |
| — Ethernet                   | No  |
| • S7-300/400                 | Yes   |
| — MPI                        | Yes   |
| — PROFIBUS DP                | Yes   |
| — PROFINET                   | No  |
| • 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)     | No  |
| • Telemecanique (Uni-Telway) | Yes; Only in combination with WinCC flexible  |
| • OMRON (LINK/Multilink)     | Yes   |
| • Modicon (Modbus)           | Yes   |
| • GE-Fanuc (SNP)             | Yes   |

#### Functions

|                         |     |
|-------------------------|-----|
| • Key repeat            | Yes |
| • TAB sequence          | Yes |
| • Calculating functions | Yes |
| • Animate               | Yes |
| • Menu tree editor      | Yes |
| • 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 | No  |

|  |            |
|--|------------|
| • Trace (operation archive)                    | No         |
| <b>Expandability/openness</b>                  |            |
| • Open Platform Program                        | No         |
| <b>Peripherals/Options</b>                     |            |
| Peripherals                                    | Printer    |
| • SIMATIC HMI MM memory card: Multi Media Card | Yes        |
| Additional software components loadable        | Yes        |
| <b>Dimensions</b>                              |            |
| Width of the housing front                     | 150 mm     |
| Height of housing front                        | 186 mm     |
| Mounting cutout, width                         | 135 mm     |
| Mounting cutout, height                        | 171 mm     |
| Overall depth                                  | 38.5 mm    |
| <b>Weights</b>                                 |            |
| Weight (without packaging)                     | 0.5 kg     |
| <b>Other</b>                                   |            |
| free hotline                                   | Yes        |
| Warranty period                                | 1 y        |
| <b>last modified:</b>                          | 04/28/2017 |