

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 OP177B 6" PN/DP STN 256 COLOR DISPLAY TOUCH AND KEYS MPI-/PROFIBUS-DP PROTOCOL RS485-/RS422-/USB- INTERFACE ETHERNET - INTERFACE PRINTER INTERFACE SLOT FOR MM-CARD CONFIGURABLE WITH WINCC FLEXIBLE 2005



Figure similar

| General information | |
|---------------------------------|------------------------------------|
| Customer-specific configuration | Yes |
| Display | |
| Design of display | STN |
| Screen diagonal | 5.7 in |
| Number of grayscales | 0 |
| Number of colors | 256 |
| Color type | Colors |
| Resolution (pixels) | |
| • Horizontal image resolution | 320 Pixel |
| • Vertical image resolution | 240 Pixel |
| Backlighting | |
| • MTBF backlighting (at 25 °C) | 50 000 h |
| Control elements | |
| Control elements | Touch screen and membrane keyboard |
| Keyboard fonts | |

| | |
|--|--|
| <ul style="list-style-type: none"> • Membrane keyboard <ul style="list-style-type: none"> — user-definable label membrane keys • Function keys <ul style="list-style-type: none"> — Number of function keys — Number of function keys with LEDs • System keys <ul style="list-style-type: none"> — Number of configurable system keys • Numeric/alphabetical input <ul style="list-style-type: none"> — hexadecimal keyboard • Multi-key operation | <p>Yes</p> <p>32</p> <p>26</p> <p>Yes</p> <p>32</p> <p>Yes / Yes</p> <p>Yes</p> <p>Yes</p> |
| Touch operation | |
| <ul style="list-style-type: none"> • Design as touch screen | Yes; analog, resistive |
| Connection type | |
| <ul style="list-style-type: none"> • Connection for mouse/keyboard/barcode reader | USB / USB / USB |
| Installation type/mounting | |
| Mounting position | vertical |
| maximum permissible angle of inclination without external ventilation | 35° |
| Supply voltage | |
| Type of supply voltage | DC |
| Input current | |
| Current consumption (rated value) | 0.24 A |
| Starting current inrush I ² t | 0.5 A ² ·s |
| Processor | |
| Processor type | ARM, 200 MHz |
| Memory | |
| Type of memory | Flash / RAM |
| Memory available for user data | 2 048 kbyte |
| Time of day | |
| Clock | |
| <ul style="list-style-type: none"> • Type • retentive • synchronizable | <p>Hardware clock, synchronizable, no battery backup</p> <p>No</p> <p>Yes</p> |
| Interfaces | |
| Interfaces/bus type | RS232 optional, 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"> • Transmission rate, max. | 12 Mbit/s |
| USB port | 1 x USB |

| | |
|---|---|
| PC card slot | No |
| CF card slot | No |
| Multimedia card/SD card slot | combined, as of E version 016 in conjunction with WinCC flexible 2008 SP1 |
| With software interfaces | No |
| Industrial Ethernet | |
| • Industrial Ethernet interface | 1 x Ethernet (RJ45) |
| • Industrial Ethernet status LED | 1 |
| Protocols | |
| Supports protocol for PROFINET IO | Yes |
| PROFIsafe | No |
| PROFIBUS | Yes |
| Protocols (Ethernet) | |
| • TCP/IP | Yes |
| Protocols (terminal link) | |
| • Sm@rtServer | Yes |
| Further protocols | |
| • EtherNet/IP | Yes |
| • MODBUS | Yes |
| • other bus systems | Yes |
| Degree and class of protection | |
| Front | IP65, NEMA 4x, NEMA 12 (when installed) |
| IP (at the front) | IP65 |
| IP (rear) | IP20 |
| Standards, approvals, certificates | |
| Certifications | CE, GL, ABS, BV, DNV, LRS, FM Class I Div. 2, UL, CSA, cULus, EX Zone 2, EX Zone 22, C-TICK, NEMA 4x, NEMA 12 |
| cULus | Yes |
| EAC (formerly Gost-R) | No |
| Suitable for safety functions | No |
| Marine approval | |
| • 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 |
| • Polski Rejestr Statkow (PRS) | No |
| Use in hazardous areas | |
| • FM Class I Division 2 | Yes |
| • EX zone 2 | Yes |
| • EX zone 22 | Yes |

Ambient conditions

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

Operating systems

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|--------------------------------|------------|
| pre-installed operating system | Windows CE |
|--------------------------------|------------|

Configuration

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|--|--|
| 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 | |
| • 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 2005 or higher (to be ordered separately) |

Languages

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

Functionality under WinCC (TIA Portal)

| | |
|--------------------------------------|-----|
| Libraries | Yes |
| Task planner | Yes |
| Help system | Yes |
| • Number of characters per info text | 70 |
| Message system | |
| • Number of alarm classes | 32 |

| | |
|--|------------------------------------|
| • Number of messages | 2 000 |
| • Bit messages | Yes |
| — Number of bit messages | 2 000 |
| • Analog messages | Yes |
| — Number of analog messages | 50 |
| • Telegram message procedure Alarm S | No |
| • System messages HMI | Yes |
| • System messages PLC | Yes |
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | No |
| • Lines | 1 |
| • Number of characters per message | 80 |
| • Number of process values per message | 8 |
| • Acknowledgment groups | |
| — Number of acknowledgement groups | 99 |
| • Message indicator | Yes |
| • acoustic feedback | No |
| • First/last value | Yes |
| Recipe management | |
| • Number of recipes | 100 |
| • Data records per recipe | 200 |
| • Entries per data record | 200 |
| • Recipe memory | 32 KB integrated Flash, expandable |
| Variables | |
| • Number of variables per device | 1 000 |
| • Number of variables per screen | 50 |
| • Number of variables | 1 000 |
| • Initial values | 1 000 |
| • Type Date & Time | 1 000 |
| • Limit values | Yes |
| • Multiplexing | Yes |
| • Structures | No |
| 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 | 2,500 text elements |
| • Number of I/O fields per image | 50 |

| | |
|------------------------------|--|
| • Number of date/time fields | 30 |
| • Index of screen context | No |
| • Return | Yes |
| • Graphics object | Bit maps, icons, icon (full-screen), vector graphics |
| — Icons | 500 |
| — Icon (full screen) | 50 |

Complex image objects

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|---|--|
| • Status/control | With SIMATIC S7 |
| • dynamic objects | Diagrams, bar graphs, sliders, analog display, invisible buttons |
| — Number of objects per project | 500 |
| — Number of curve diagrams per image | 5 |
| • Methods | Trend |
| • Bar graphs | |
| — Number of bars per chart | 5 |
| • Sliders | |
| — Number of slides per image | 0 |
| • Pointer instruments | |
| — Number of analog indicators per image | 0 |
| • Limit value lines | Yes |
| • Number of alphanumerical fields | 1 000 |
| — alphanumeric fields per image | 100 |
| • Number of numerical fields | 1 000 |
| — numerical fields per image | 100 |
| • Number of password fields | 1 000 |
| • Number of visible switches per project | 1 000 |
| — visible switches per image | 100 |
| — hidden switches per image | 100 |
| • Number of status switches per project | 1 000 |
| — Number of status switches per image | 100 |
| • Number of selector switches per project | 1 000 |
| — Selector switches per image | 100 |
| • Number of decade switches per project | 0 |
| — Decade switches per image | 0 |
| • Number of signal lamps per project | 1 000 |
| — Signal lamps per image | 100 |

Attributes for dynamic objects

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|---------------------|-----|
| • Color change | Yes |
| • X/Y movement | Yes |
| • Hide | Yes |
| • Angle of rotation | No |

Lists

| | |
|--|--|
| • Number of text lists per project | 300 |
| • Number of text lists per image | 10 |
| • Number of entries per text list | 30 |
| • Number of graphics lists per project | 100 |
| • Number of graphic lists per image | 10 |
| • Number of entries per graphics list | 30 |
| Security | |
| • Number of user groups | 50 |
| • Number of user rights | 32 |
| • Password export/import | Yes |
| Data carrier support | |
| • PC card | No |
| • CF card | No |
| Logging through printer | |
| • Recording/Printing | Alarms, report (shift report), color print, hardcopy |
| Transfer (upload/download) | |
| • Transfer of configuration | MPI/PROFIBUS DP, serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition |
| Process coupling | |
| • Connection to controller | S5, S7-200, S7-300/400, Win AC, PC (TCP/IP), SINUMERIK, SIMOTION, Allen Bradley (DF1), Mitsubishi (FX), Telemecanique (ADJUST), Modicon (Modbus), further non-Siemens drivers, see chapter "System interfaces" |
| • S7-1200 | Yes |
| • S7-1500 | No |
| • S7-200 | Yes |
| — PPI (point-to-point) | Yes |
| — PPI network | No |
| — MPI | Yes |
| — PROFIBUS DP | Yes |
| — Ethernet | Yes |
| • S7-300/400 | Yes |
| — MPI | Yes |
| — PROFIBUS DP | Yes |
| — PROFINET | Yes |
| • S5 | Yes; only PROFIBUS DP |
| — serial | No |
| — PROFIBUS DP | Yes |
| • TI 505 | No |
| • Allen Bradley (DF1) | Yes |
| • Allen Bradley (DF485) | Yes |
| • Mitsubishi (FX) | Yes |

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|--|--|
| • Telemecanique (ADJUST) | No |
| • Telemecanique (Uni-Telway) | Yes; Only in combination with WinCC flexible |
| • OMRON (LINK/Multilink) | Yes |
| • Modicon (Modbus) | Yes |
| Functions | |
| • Key repeat | No |
| • TAB sequence | Yes |
| • Calculating functions | Yes |
| • Animate | Yes |
| • Menu tree editor | Yes |
| • Unit switchover | No |
| Service tools/configuration aids | |
| • Clean screen | Yes |
| • Touch calibration | Yes |
| • Backup/Restore manually | Yes |
| • Simulation | Yes |
| • Device switchover | Yes |
| • Delta transfer | Yes |
| • Monitoring function for battery and memory | No |
| • Trace (operation archive) | No |
| Expandability/openness | |
| • Open Platform Program | Yes |
| Peripherals/Options | |
| Peripherals | Printer |
| • SIMATIC HMI MM memory card: Multi Media Card | Yes |
| Additional software components loadable | Yes |
| Dimensions | |
| Width of the housing front | 243 mm |
| Height of housing front | 212 mm |
| Mounting cutout, width | 229 mm |
| Mounting cutout, height | 196 mm |
| Overall depth | 45 mm |
| Weights | |
| Weight (without packaging) | 1 kg |
| Other | |
| free hotline | Yes |
| Warranty period | 1 y |
| last modified: | 04/28/2017 |