

\*\*\* SPARE PART\*\*\* SIMATIC PANEL OP177B DP BLUE MODE  
 STN DISPLAY TOUCH AND KEYS MPI-/PROFIBUS-DP  
 PROTOCOL RS485-/RS422-/USB- INTERFACE PRINTER  
 INTERFACE SLOT FOR MM-CARD CONFIGURABLE WITH WINCC  
 FLEXIBLE 2005

General information	
Customer-specific configuration	Yes
Display	
Design of display	STN
Screen diagonal	5.7 in
Number of greyscale	4
Number of colors	4
Color type	Blue levels
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	
• Membrane keyboard	
— user-definable label membrane keys	Yes
• Function keys	
— Number of function keys	32
— Number of function keys with LEDs	26
• System keys	Yes
• Numeric/alphabetical input	Yes / Yes
— hexadecimal keyboard	Yes
• Multi-key operation	Yes
Touch operation	
• Design as touch screen	Yes; analog, resistive
Connection type	
• Connection for mouse/keyboard/barcode reader	USB / USB / -
Installation type/mounting	
Mounting position	vertical

maximum permissible angle of inclination without external ventilation	35°
<b>Processor</b>	
Processor type	RISC 32-bit, 200 MHz
<b>Memory</b>	
Type of memory	Flash / RAM
Memory available for user data	2 048 kbyte
<b>Time of day</b>	
<b>Clock</b>	
• Type	Hardware clock, synchronizable, no battery backup
• retentive	No
• synchronizable	Yes
<b>Interfaces</b>	
Interfaces/bus type	RS232 optional, 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
PC card slot	No
CF card slot	No
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
<b>Industrial Ethernet</b>	
• Industrial Ethernet interface	No
• Industrial Ethernet status LED	0
<b>Degree and class of protection</b>	
Front	IP65, NEMA 4, 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, PRS, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2/22, Gost-R, C-TICK, NEMA 4, NEMA 4x, NEMA 12
cULus	Yes
EAC (formerly Gost-R)	Yes
<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
• Polski Rejestr Statkow (PRS)	Yes
<b>Use in hazardous areas</b>	

- FM Class I Division 2
- EX zone 2
- EX zone 22

Yes  
Yes  
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
<b>Configuration software</b>	
• Configuration tool	WinCC flexible Compact Version 2005 or higher (to be ordered separately)

**Languages**

**Online languages**

- Number of online/runtime languages 16

**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
<b>Message system</b>	
• 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	2 000
• Telegram message procedure Alarm S	No
• System messages HMI	Yes
• System messages PLC	No

• 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
<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	50
• Number of variables	1 000
• Initial values	1 000
• Type Date & Time	1 000
• Limit values	Yes
• Multiplexing	Yes
• Structures	No
<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	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
<b>Complex image objects</b>	
• Status/control	With SIMATIC S7

<ul style="list-style-type: none"> <li>• dynamic objects <ul style="list-style-type: none"> <li>— Number of objects per project</li> <li>— Number of curve diagrams per image</li> </ul> </li> <li>• Methods</li> <li>• Bar graphs <ul style="list-style-type: none"> <li>— Number of bars per chart</li> </ul> </li> <li>• Sliders <ul style="list-style-type: none"> <li>— Number of slides per image</li> </ul> </li> <li>• Pointer instruments <ul style="list-style-type: none"> <li>— Number of analog indicators per image</li> </ul> </li> <li>• Limit value lines</li> <li>• Number of alphanumeric fields <ul style="list-style-type: none"> <li>— alphanumeric fields per image</li> </ul> </li> <li>• Number of numerical fields <ul style="list-style-type: none"> <li>— numerical fields per image</li> </ul> </li> <li>• Number of password fields</li> <li>• Number of visible switches per project <ul style="list-style-type: none"> <li>— visible switches per image</li> <li>— hidden switches per image</li> </ul> </li> <li>• Number of status switches per project <ul style="list-style-type: none"> <li>— Number of status switches per image</li> </ul> </li> <li>• Number of selector switches per project <ul style="list-style-type: none"> <li>— Selector switches per image</li> </ul> </li> <li>• Number of decade switches per project <ul style="list-style-type: none"> <li>— Decade switches per image</li> </ul> </li> <li>• Number of signal lamps per project <ul style="list-style-type: none"> <li>— Signal lamps per image</li> </ul> </li> </ul>	Diagrams, bar graphs, sliders, analog display, invisible buttons 500 5 Trend 5 0 0 Yes 1 000 100 1 000 100 1 000 1 000 100 100 1 000 100 1 000 100 0 0 1 000 100
<b>Attributes for dynamic objects</b>	
<ul style="list-style-type: none"> <li>• Color change</li> <li>• X/Y movement</li> <li>• Hide</li> <li>• Angle of rotation</li> </ul>	Yes Yes Yes No
<b>Lists</b>	
<ul style="list-style-type: none"> <li>• Number of text lists per project</li> <li>• Number of text lists per image</li> <li>• Number of entries per text list</li> <li>• Number of graphics lists per project</li> <li>• Number of graphic lists per image</li> <li>• Number of entries per graphics list</li> </ul>	300 10 30 100 10 30
<b>Security</b>	
<ul style="list-style-type: none"> <li>• Number of user groups</li> </ul>	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, by means of external storage medium, automatic transfer recognition
<b>Process coupling</b>	
• Connection to controller	S5, S7-200, S7- 300/400, Win AC, SINUMERIK, SIMOTION, Allen Bradley (DF1), Mitsubishi (FX), Telemecanique (ADJUST), Modicon (Modbus), for further non-Siemens drivers, see section on "System interfaces"
• S7-200	Yes
— PPI (point-to-point)	Yes
— PPI network	No
— MPI	Yes
— PROFIBUS DP	Yes
— Ethernet	No
• S7-300/400	Yes
— MPI	Yes
— PROFIBUS DP	Yes
— PROFINET	No
• S5	Yes
— serial	No
— PROFIBUS DP	Yes
• TI 505	No
• Allen Bradley (DF1)	Yes
• Allen Bradley (DF485)	No
• Mitsubishi (FX)	Yes
• Telemecanique (ADJUST)	Yes
• OMRON (LINK/Multilink)	No
• Modicon (Modbus)	Yes
<b>Functions</b>	
• Key repeat	No
• TAB sequence	Yes
• Calculating functions	Yes
• Animate	Yes
• Menu tree editor	Yes
• 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
• SIMATIC HMI MM memory card: Multi Media Card	Yes
Additional software components loadable	No
<b>Dimensions</b>	
Width of the housing front	243 mm
Height of housing front	212.5 mm
Overall depth	45 mm
<b>Weights</b>	
Weight (without packaging)	1 kg
<b>Other</b>	
free hotline	Yes
Warranty period	1 y
<b>last modified:</b>	04/28/2017