



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

General information	
<b>Product function</b>	
Customer-specific configuration	No
<b>Display</b>	
Design of display	STN
Screen diagonal	4.5 in
Size	4.5"
Display type	STN, Schwarz/Weiss
Color type	Black/white
<b>Resolution (pixels)</b>	
Horizontal image resolution	160
Vertical image resolution	64
Resolution (WxH in pixel)	160 x 64
<b>Backlighting</b>	
MTBF backlighting (at 25 °C)	about 100,000 hours
<b>Control elements</b>	
Control elements	Membrane keyboard
Operating options	Keys
Function keys, programmable	8 function keys, 4 with LEDs

Connection for mouse/keyboard/barcode reader	- / - / -
<b>Keyboard fonts</b>	
Keys with LED	Yes
freely inscribable membrane keys	Yes
Number of function keys with LEDs	4
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	Yes
<b>Supply voltage</b>	
Supply voltage	24 V DC
<b>Input current</b>	
Rated current	0.2 A
Inrush current A <sup>2</sup> s	0.5 A <sup>2</sup> s
<b>Processor</b>	
Processor	ARM
Processor type	ARM
<b>Memory</b>	
Type	Flash / RAM
Usable memory for user data	1000 KB usable memory for user data
<b>Type of output</b>	
Info LED	Yes
Power LED	No
Error LED	No
<b>Time of day</b>	
<b>Clock</b>	
Type	Software clock, no battery backup
<b>Interfaces</b>	
Interfaces	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
Special interfaces	No
<b>Industrial Ethernet</b>	
Industrial Ethernet interface	No
<b>Degree and class of protection</b>	
Front	IP65, NEMA 4x, NEMA 12 (when installed)
Type of protection	IP20

<b>IP (at the front)</b>	IP65
<b>NEMA</b>	NEMA 4x, NEMA 12
<b>Rear</b>	IP20
<b>Standards, approvals, certificates</b>	
<b>Certifications</b>	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
<b>FM Class I Div. 2</b>	Yes
<b>GL</b>	Yes
<b>ABS</b>	Yes
<b>BV</b>	Yes
<b>DNV</b>	Yes
<b>LRS</b>	Yes
<b>Class NK</b>	Yes
<b>PRS</b>	No
<b>Gost-R</b>	No
<b>Suitable for safety functions</b>	No
<b>Use in hazardous areas</b>	
<b>EX zone 2</b>	Yes
<b>EX zone 22</b>	Yes
<b>Ambient conditions</b>	
<b>Mounting position</b>	vertical
<b>maximum permissible angle of inclination without external ventilation</b>	+/- 80 °
<b>Storage/transport temperature</b>	
<b>Transport, storage</b>	-20 °C to +60 °C
<b>Relative humidity</b>	
<b>max. relative humidity</b>	90 %
<b>Operating systems</b>	
<b>Operating system</b>	Windows CE
<b>Configuration</b>	
<b>Configuration software</b>	
<b>STEP 7 Basic (TIA Portal)</b>	No
<b>STEP 7 Professional (TIA Portal)</b>	No
<b>WinCC flexible Compact</b>	Yes
<b>WinCC flexible Standard</b>	Yes
<b>WinCC flexible Advanced</b>	Yes
<b>WinCC Basic (TIA Portal)</b>	No
<b>WinCC Comfort (TIA Portal)</b>	Yes

<b>WinCC Advanced (TIA Portal)</b>	Yes
<b>WinCC Professional (TIA Portal)</b>	Yes
<b>Configuration tool</b>	WinCC flexible Compact Version 2004 or higher (to be ordered separately)
<b>2nd configuration kit</b>	WinCC flexible Compact
<b>Version</b>	Version 2004
<b>Configuration tool</b>	WinCC flexible
<b>Type</b>	Compact
<b>Languages</b>	
<b>Online languages</b>	
<b>Number of online/runtime languages</b>	5
<b>Languages</b>	
<b>Languages per project</b>	32
<b>Functionality under WinCC flexible</b>	
<b>Libraries</b>	Yes
<b>Task planner</b>	Yes
<b>Help system</b>	Yes
<b>Number of characters per info text</b>	320
<b>With alarm logging system (incl. buffer and acknowledgment)</b>	
<b>Number of alarm classes</b>	32
<b>Number of messages</b>	1000
<b>Bit messages</b>	Yes
<b>Analog messages</b>	Yes
<b>Number of bit messages</b>	1000
<b>Number of analog messages</b>	1000
<b>Telegram message procedure Alarm S</b>	Yes
<b>System messages HMI</b>	Yes
<b>System messages PLC</b>	Yes
<b>System messages, other (SIMATIC S7, Sinumerik, Simotion, ...)</b>	No
<b>Message length (in characters)</b>	80
<b>Number of process values per message</b>	8
<b>Acknowledgment groups</b>	Yes
<b>Message indicator</b>	No
<b>Acoustic feedback</b>	No
<b>First/last value</b>	Yes
<b>Recipes</b>	
<b>Number of recipes</b>	100
<b>Data records per recipe</b>	200

<b>Entries per data record</b>	200
<b>Recipe memory</b>	32 KB integrated Flash, expandable
<b>Variables</b>	
<b>Number of variables per device</b>	1000
<b>Number of variables per screen</b>	30
<b>Limit values</b>	Yes
<b>Multiplexing</b>	Yes
<b>Images</b>	
<b>Number of configurable images</b>	500
<b>Permanent window/default</b>	Yes
<b>Start screen configurable</b>	Yes
<b>Image selection by PLC</b>	Yes
<b>Image number in the PLC</b>	Yes
<b>Image objects</b>	
<b>Text objects</b>	2,500 text elements
<b>Fields per image</b>	30
<b>Date/time fields</b>	0
<b>Index of screen context</b>	No
<b>Return</b>	Yes
<b>Graphics object</b>	Bit maps, icons, icon (full-screen)
<b>Icons</b>	1000
<b>Icon (full screen)</b>	100
<b>Complex image objects</b>	
<b>dynamic objects</b>	Bar graphs
<b>Number of bars per chart</b>	5
<b>Limit value lines</b>	Yes
<b>alphanumeric fields</b>	1000
<b>alphanumeric fields per image</b>	30
<b>numerical fields</b>	1000
<b>numerical fields per image</b>	30
<b>Password errors</b>	0
<b>Number of analog indicators per image</b>	0
<b>visible switches per image</b>	0
<b>hidden switches per image</b>	0
<b>Button status switches per image</b>	0
<b>Selector switches per image</b>	0
<b>Decade switches per image</b>	0
<b>Signal lamps per image</b>	0
<b>Attributes for dynamic objects</b>	

<b>Color change</b>	Yes
<b>X/Y movement</b>	No
<b>Hide</b>	Yes
<b>Angle of turn</b>	No
<b>Lists</b>	
<b>Number of text lists per project</b>	300
<b>Number of graphics lists per project</b>	0
<b>Number of graphic lists per image</b>	0
<b>Number of entries per graphics list</b>	0
<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), hardcopy
<b>Transfer (upload/download)</b>	
<b>Transfer of configuration</b>	MPI/PROFIBUS DP, serial, USB, by means of external storage medium, automatic transfer recognition
<b>Process coupling</b>	
<b>Connection to controller</b>	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"
<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>	No
<b>S7-300/400</b>	Yes
<b>MPI</b>	Yes
<b>PROFIBUS DP</b>	Yes
<b>PROFINET</b>	No
<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>Telemecanique (ADJUST)</b>	No
<b>Telemecanique (Uni-Telway)</b>	Yes ; Only in combination with WinCC flexible
<b>OMRON (LINK/Multilink)</b>	Yes
<b>Modicon (Modbus)</b>	Yes
<b>GE-Fanuc (SNP)</b>	Yes
<b>Functions</b>	
<b>Key repeat</b>	Yes
<b>TAB sequence</b>	Yes
<b>Calculating functions</b>	Yes
<b>Animate</b>	Yes
<b>Menu tree editor</b>	Yes
<b>Unit switchover</b>	No
<b>Service tools/configuration aids</b>	
<b>Clean screen</b>	No
<b>Touch calibration</b>	No
<b>Backup/restore</b>	Yes
<b>Simulation</b>	Yes
<b>Device switchover</b>	Yes
<b>Delta transfer</b>	Yes
<b>Monitoring function for battery and memory</b>	No
<b>Trace (operation archive)</b>	No
<b>Expandability/openness</b>	
<b>Open Platform Program</b>	No
<b>I/O / Options</b>	
<b>I/O devices</b>	Printer
<b>Multi Media Card</b>	Yes
<b>Dimensions</b>	
<b>Front of enclosure (W x H)</b>	150 mm x 186 mm
<b>Weight</b>	
<b>Weight</b>	0.5 kg
<b>other</b>	
<b>free hotline</b>	Yes
<b>Warranty period</b>	1 a
Status	Mar 4, 2013