



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

General information	
Product function	
Customer-specific configuration	Yes
Display	
Design of display	STN
Screen diagonal	5.7 in
Size	5.7" (120 mm x 90 mm)
Display type	STN, 256 colors
Color type	Colors
Resolution (pixels)	
Horizontal image resolution	320
Vertical image resolution	240
Resolution (WxH in pixel)	320 x 240
Backlighting	
MTBF backlighting (at 25 °C)	about 50000 hours
Control elements	
Control elements	Membrane keyboard
Operating options	Keys and Touch
Function keys, programmable	32 function keys, 26 with LEDs

<b>Connection for mouse/keyboard/barcode reader</b>	USB / USB / USB
<b>Keyboard fonts</b>	
<b>freely inscribable membrane keys</b>	Yes
<b>Number of function keys with LEDs</b>	26
<b>Multi-key operation</b>	Yes
<b>Number of configurable system keys</b>	32
<b>System keys</b>	Yes
<b>Numeric/alphabetical input</b>	Yes / Yes
<b>hexadecimal keyboard</b>	Yes
<b>Multi-key operation</b>	Yes
<b>Touch operation</b>	
<b>Touch screen</b>	Analog, resistive
<b>Supply voltage</b>	
<b>Supply voltage</b>	24 V DC
<b>Input current</b>	
<b>Rated current</b>	0.24 A
<b>Inrush current A<sup>2</sup>s</b>	0.5 A <sup>2</sup> s
<b>Processor</b>	
<b>Processor</b>	ARM, 200 MHz
<b>Processor type</b>	ARM
<b>Memory</b>	
<b>Type</b>	Flash / RAM
<b>Usable memory for user data</b>	2048 KB usable memory for user data
<b>Time of day</b>	
<b>Clock</b>	
<b>Type</b>	Hardware clock, synchronizable, no battery backup
<b>Interfaces</b>	
<b>Interfaces</b>	RS232 optional, 1 x RS422, 1 x RS485, 1 x Ethernet (RJ45) (max. 12 Mbit/s)
<b>Number of RS 485 interfaces</b>	1
<b>Transmission rate, max.</b>	12 Mbit/s
<b>USB port</b>	1 x USB
<b>PC card slot</b>	No
<b>CF card slot</b>	No
<b>Multimedia card/SD card slot</b>	combined, as of E version 016 in conj. with WinCC flex. 2008 SP1
<b>Special interfaces</b>	No
<b>Industrial Ethernet</b>	
<b>Industrial Ethernet interface</b>	1 x Ethernet (RJ45)
<b>Industrial Ethernet status LED</b>	1

Protocols	
Protocols (terminal link)	
Sm@rtServer	Yes
Degree and class of protection	
Front	IP65, NEMA 4x, NEMA 12 (when installed)
Type of protection	IP20
IP (at the front)	IP65
NEMA	NEMA 4x, NEMA 12
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
FM Class I Div. 2	Yes
GL	Yes
ABS	Yes
BV	Yes
DNV	Yes
LRS	Yes
PRS	No
Gost-R	No
Suitable for safety functions	No
Use in hazardous areas	
EX zone 2	Yes
EX zone 22	Yes
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	+/- 35 °
Storage/transport temperature	
Transport, storage	-20 °C to +60 °C
Relative humidity	
max. relative humidity	90 %
Operating systems	
Operating system	Windows CE
Configuration	
Message indicator	Yes
With alarm logging system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes

<b>Recipe administration</b>	Yes
<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 2005 or higher (to be ordered separately)
<b>2nd configuration kit</b>	WinCC flexible Compact
<b>Version</b>	Version 2005
<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>	70
<b>With alarm logging system (incl. buffer and acknowledgment)</b>	
<b>Number of alarm classes</b>	32
<b>Number of messages</b>	2000
<b>Bit messages</b>	Yes
<b>Analog messages</b>	Yes
<b>Number of bit messages</b>	2000
<b>Number of analog messages</b>	50
<b>Telegram message procedure Alarm S</b>	No
<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>Lines</b>	1
<b>Number of process values per message</b>	8
<b>Acknowledgment groups</b>	99
<b>Message indicator</b>	Yes
<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>	50
<b>Number of variables</b>	1000
<b>Initial values</b>	1000
<b>Limit values</b>	Yes
<b>Multiplexing</b>	Yes
<b>Structs</b>	No
<b>Type Date &amp; Time</b>	1000
<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>	50
<b>Date/time fields</b>	30
<b>Index of screen context</b>	No
<b>Return</b>	Yes
<b>Graphics object</b>	Bit maps, icons, icon (full-screen), vector graphics
<b>Icons</b>	500
<b>Icon (full screen)</b>	50
<b>Complex image objects</b>	
<b>Status/control</b>	With SIMATIC S7
<b>dynamic objects</b>	Diagrams, bar graphs, sliders, analog display, invisible buttons

Number of objects per project	500
Number per image	5
Methods	Trend
Limit value lines	Yes
Number of bars per chart	5
Limit value lines	Yes
alphanumeric fields	1000
alphanumeric fields per image	100
numerical fields	1000
numerical fields per image	100
Password errors	1000
Number of slides per image	0
Number of analog indicators per image	0
Number of visible switches per project	1000
visible switches per image	100
hidden switches per image	100
Number of status switches per project	1000
Button status switches per image	100
Number of selector switches per project	1000
Selector switches per image	100
Number of decade switches per project	0
Decade switches per image	0
Number of signal lamps per project	1000
Signal lamps per image	100
<b>Attributes for dynamic objects</b>	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
<b>Lists</b>	
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
<b>Security</b>	
Number of user groups	50
Number of user rights	32

<b>Password export/import</b>	Yes
<b>Data carrier support</b>	
<b>PC card</b>	No
<b>CF card</b>	No
<b>Logging through printer</b>	
<b>Recording/Printing</b>	Alarms, report (shift report), color print, hardcopy
<b>Transfer (upload/download)</b>	
<b>Transfer of configuration</b>	MPI/PROFIBUS DP, serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition
<b>Process coupling</b>	
<b>Connection to controller</b>	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"
<b>S7-1200</b>	Yes
<b>S7-1500</b>	No
<b>S7-200</b>	Yes
<b>PPI (point-to-point)</b>	Yes
<b>PPI network</b>	No
<b>MPI</b>	Yes
<b>PROFIBUS DP</b>	Yes
<b>Ethernet</b>	Yes
<b>S7-300/400</b>	Yes
<b>MPI</b>	Yes
<b>PROFIBUS DP</b>	Yes
<b>PROFINET</b>	Yes
<b>S5</b>	Yes ; only PROFIBUS DP
<b>serial</b>	No
<b>PROFIBUS DP</b>	Yes
<b>TI 505</b>	No
<b>Allen Bradley (DF1)</b>	Yes
<b>Allen Bradley (DF485)</b>	No
<b>Mitsubishi (FX)</b>	Yes
<b>Telemecanique (ADJUST)</b>	Yes
<b>Telemecanique (Uni-Telway)</b>	Yes ; Only in combination with WinCC flexible
<b>OMRON (LINK/Multilink)</b>	No
<b>Modicon (Modbus)</b>	Yes
<b>Functions</b>	
<b>Key repeat</b>	No
<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>	Yes
<b>Touch calibration</b>	Yes
<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>	Yes
<b>I/O / Options</b>	
<b>I/O devices</b>	Printer
<b>Multi Media Card</b>	Yes
<b>Additional software components loadable</b>	Yes
<b>Dimensions</b>	
<b>Front of enclosure (W x H)</b>	243 mm x 212 mm
<b>Weight</b>	
<b>Weight</b>	1 kg
<b>other</b>	
<b>free hotline</b>	Yes
<b>Warranty period</b>	1 a
Status	Feb 11, 2013