

SIEMENS

Product data sheet

6AV6642-0DC01-1AX1


SIMATIC OP177B 6" 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 system features

Customer-specific configuration	Yes
Message indicator	Yes
With alarm logging system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe administration	Yes
Additional software components loadable	Yes

Display

Design of display	STN
Size	5.7" (120 mm x 90 mm)
Screen diagonal	5.7 in
Display type	STN, 4 Blaustufen
Number of grayscales	4
Color type	Blue levels

Resolution (pixels)	
Horizontal image resolution	320
Vertical image resolution	240
Resolution (WxH in pixel)	320 x 240
Backlighting	
MTBF backlighting (at 25 °C)	about 50,000 hours
Control elements	
Control elements	Membrane keyboard
Operating mode	
Operating options	Keys and Touch
Function keys, programmable	32 function keys, 26 with LEDs
Connection for mouse/keyboard/barcode reader	USB / USB / USB
external mouse	USB
Keyboard	
external keyboard	USB
freely inscribable membrane keys	Yes
Number of function keys with LEDs	26
Multi-key operation	Yes
Number of configurable system keys	32
System keys	Yes
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	Yes
Touch operation	
Touch screen	analog, resistive
Design as touch screen	Yes
Barcode reader	
Connection for barcode reader	-
Expansions for operator control of the process	
DP direct LEDs (LEDs as S7 output I/O)	F1...F8, K1...K18
DP direct keys (screen buttons and keys as S7 input I/O)	F1...F14, K1...K18, Number of bytes for configurable buttons: 4
Supply voltage	
Input voltage	

Type of voltage	DC
permissible range	+20.4 V to +28.8 V DC
Supply voltage	24 V DC
Input current	
Rated current	0.24 A
I ² t-level / maximum	0.5 A ² ·s
Processor	
Processor	ARM, 200 MHz
Processor type	ARM
Memory	
Type	Flash / RAM
Usable memory for user data	2048 KB usable memory for user data
Type of output	
LED colors	Green
Time of day	
Clock	
Type	Hardware clock, synchronizable, no battery backup
Interfaces	
Interfaces	RS232 optional, 1 x RS422, 1 x RS485 (max. 12 Mbit/s)
USB port	1 x USB
PC card slot	No
CF card slot	No
Multimedia card / SD card slot	combined
Special interfaces	No
Number of RS 485 interfaces	1
Transmission rate, max.	12 Mbit/s
Industrial Ethernet	
Industrial Ethernet interface	No
Industrial Ethernet status LED	0
Protocols	
Protocols (terminal link)	
Sm@rtAccess	Yes
Ambient conditions	

Operating temperature	
Operation (vertical installation)	0 °C to +50 °C
Operation (max. tilt angle)	0 °C to +40 °C
Storage/transport temperature	
Transport, storage	-20 °C to +60 °C
Relative humidity	
max. relative humidity	90 %
Mounting position	
maximum permissible angle of inclination without external ventilation	+/- 35 °
Degree and class of protection	
Front	IP65, NEMA 4x, NEMA 12 (when installed)
IP (at the front)	IP65
NEMA	NEMA 4x, NEMA 12
Rear	IP20
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
Operating systems	
Operating system	Windows CE
Configuration	
Configuration software	
Configuration tool	WinCC flexible Compact Version 2005 or higher (to be ordered separately)
2nd configuration kit	WinCC flexible Compact
Version	Version 2005
Configuration tool	WinCC flexible
Type	Compact
Functionality under WinCC flexible	
Applications/options	Sm@rtService, Sm@rtAccess
Task planner	Yes
Help system	Yes

Number of info. texts	70
Status/control	with SIMATIC S7
With alarm logging system (incl. buffer and acknowledgment)	
Number of messages	2000
Bit messages	Yes
Analog messages	Yes
Number of bit messages	2000
Number of analog messages	50
Number of alarm classes	32
Telegram message procedure Alarm S	No
System messages HMI	Yes
System messages PLC	Yes
System messages, other (Sinumerik, Simotion,..)	No
Message length (in characters)	80
Lines	1
Number of process values per message	8
Acknowledgment groups	99
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes
Message buffer	Ring buffer (n x 256 entries), retentive, maintenance-free
Recipes	
Recipes	100
Data records per recipe	200
Entries per data record	200
Recipe memory	32 KB integrated Flash, expandable
Number of process images	
Process images	500
Variables	1000
Type Date & Time	1000
Number of internal variable	1000
Initial values	1000
Limit values	Yes

Multiplexing	Yes
Structs	No
Image elements	
Text objects	2,500 text elements
Fields per image	50
Variables per image	50
Permanent window/default	Yes
Image selection via PLC	Yes
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Y
Graphics object	Bit maps, icons, icon (full-screen), vector graphics
Icons	500
Icon (full screen)	50
dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
Number of objects per project	500
Number per image	5
Write direction	horizontal
Online operation of trends	Compress / shift
trigger	Bit / Time
Methods	Trend
Limit value lines	Yes
Number of bars per chart	5
Direction	vertical / horizontal
Limit value lines	Yes
alphanumeric fields	1000
alphanumeric fields per image	100
numerical fields	1000
numerical fields per image	100
Date and time field	30
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
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
Lists	
Text lists	300
Number of text lists per image	10
Number of entries in text lists	30
Graphics list	100
Number of graphic lists per image	10
Number of entries in graphics lists	30
Libraries	Yes
Security	
Number of user groups	50
Passwords exportable	Yes
Number of user rights	32
Data carrier support	
PC card	No
CF card	No
Multimedia Card	Yes

Recording	
Recording/Printing	Alarms, report (shift report), hardcopy
Printer driver	ESC/P2, PCL3/PCL6
Fonts	
Keyboard fonts	US American (English)
Languages	
Online languages	5
Languages per project	32
Configuration languages	D, GB, F, I, E, CHN "traditional", CHN "simplified", DK, FIN, GR, J, KP / ROK, NL, N, PL, P, RUS, S, CZ / SK, TR, H
Character sets	Tahoma, Courier New, WinCC flexible Standard, symbol languages, 2 additional character sets can be loaded, all freely scalable
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP, serial, USB, by means of external storage medium, automatic transfer recognition
Process coupling	
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 ; only PROFIBUS DP
serial	No
PROFIBUS DP	Yes

TI 505	No
Point-to-point	No
Network	No
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF485)	No
Point-to-point	No
Network	No
Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	No
Telemecanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
OMRON (LINK/Multilink)	No
Point-to-point	No
Network	No
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	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	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
I/O / Options	
I/O devices	Printer
Mounting	
Mounting technology	Clamp terminals
Mechanics/material	
Type of housing (front)	Plastic
Dimensions and weight	
Dimensions	
Front of enclosure (W x H)	243 mm x 212 mm
Mounting cutout/device depth (W x H / D)	229 mm x 196 mm / 45 mm device depth
Weight	
Weight	1 kg
other	
free hotline	Yes
Warranty period	1 a
Status	May 23, 2011