



SIMATIC OPERATOR PANEL OP77A BACKLIT LC DISPLAY,
 4.5" DISPL. W. GRAPHICS CAPABIL MPI-/PROFIBUS-DP INTERFACE UP TO 1,5MB,
 FOR CONFIGURATION WINCC FLEXIBLE 2004
 COMPACT HSP UPWARDS;
 CONTAINS OPEN-SOURCE-SW,
 WHICH IS PROVIDED FREE OF CHARGE. FOR DETAILS SEE ENCLOSED CD

General information	
customer-specific configuration	No
Display	
Design of display	STN
Screen diagonal	4.5 in
Size	4.5"
Display type	STN, black/white
Color type	Black/white
Resolution (pixels)	
horizontal image resolution	160
vertical image resolution	64
Resolution (WxH in pixel)	160 x 64
Backlighting	
MTBF backlighting (at 25 °C)	about 100,000 hours
Control elements	
Control elements	Membrane keyboard
Operating options	Keys
Function keys, programmable	8 function keys, 4 with LEDs
Connection for mouse/keyboard/barcode reader	- / - / -

Keyboard fonts	
Keys with LED	Yes
user-definable label membrane keys	Yes
Number of function keys with LEDs	4
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	Yes
Touch operation	
Design as touch screen	No
Supply voltage	
Type of supply voltage	DC
Input current	
Rated current	0.2 A
Inrush current A ² s	0.5 A ² s
Processor	
Processor	ARM
Processor type	ARM
Memory	
Type	Flash / RAM
usable memory for user data	256 KB usable memory for user data
Type of output	
Info LED	Yes
Power LED	No
Error LED	No
Time of day	
Clock	
Type	Software clock, no battery backup
Hardware clock (real-time clock)	No
Software clock	Yes
battery-backed	No
synchronizable	No
Interfaces	
Interfaces	1 x RS422, 1 x RS485 (max. 1.5 Mbit/s)
Number of RS 485 interfaces	1
Transmission rate, max.	1.5 Mbit/s
USB port	No
PC card slot	No
CF card slot	No

Multimedia Card slot	No
Special interfaces	No
Industrial Ethernet	
Industrial Ethernet interface	No
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 (in Vorbereitung), EX-Zone 22 (in Vorbereitung), C-TICK, NEMA 4x, NEMA 12
cULus	Yes
EAC (former 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
Nippon Kaiji Kyokai (Class NK)	Yes
Polski Rejestr Statkow (PRS)	No
Use in hazardous areas	
EX zone 2	Yes
EX zone 22	Yes
FM Class I Division 2	Yes
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	+/- 80 °
Storage/transport temperature	
Transport, storage	-20 °C to +60 °C
Relative humidity	
Operation, max.	90 %
Operating systems	
Operating system	LINUX

Configuration	
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 2004 SP 1 and higher; HSP OP 77 (to be ordered separately)
2. Configuration kit	WinCC flexible Compact
Version	Version 2004 SP 1; HSP OP 77
Configuration tool	WinCC flexible
Type	Compact
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	320
Message system	
Number of alarm classes	32
Number of messages	1000
Bit messages	Yes
Analog messages	Yes
Number of bit messages	1000
Number of analog messages	1000
Telegram message procedure Alarm S	No
System messages HMI	Yes
System messages PLC	Yes
System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	No

Message length (in characters)	80
Number of process values per message	8
Acknowledgment groups	Yes
Message indicator	No
acoustic feedback	No
First/last value	Yes
Recipe administration	
Number of recipes	5
Data records per recipe	20
Entries per data record	20
Recipe memory	32 KB integrated Flash
Variables	
Number of variables per device	1000
Number of variables per screen	30
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	1,000 text elements
I/O fields per image	30
Index of screen context	No
Return	Yes
Graphics object	Bit maps, icons, icon (full-screen)
Icons	1
Icon (full screen)	1
Complex image objects	
Status/control	Not possible
dynamic objects	Bar graphs
Number of bars per chart	5
Limit value lines	Yes
alphanumeric fields	1000
alphanumeric fields per image	30
numerical fields	1000

numerical fields per image	30
Attributes for dynamic objects	
Color change	No
X/Y movement	No
Hide	Yes
Angle of rotation	No
Lists	
Number of text lists per project	300
Number of graphics lists per project	0
Security	
Number of user groups	50
Number of user rights	32
Password export/import	Yes
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP, serial, automatic transfer recognition
Process coupling	
Connection to controller	S7-200, S7- 300/400, Win AC see section on "System interfaces"
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	Yes
MPI	Yes
PROFIBUS DP	Yes
Ethernet	No
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	Yes
PROFINET	No
S5	No
serial	No
PROFIBUS DP	No
TI 505	No
Allen Bradley (DF1)	No
Allen Bradley (DF485)	No
Mitsubishi (FX)	No
Mitsubishi (MP4)	No
Telemecanique (ADJUST)	No
Telemecanique (Uni-Telway)	No
OMRON (LINK/Multilink)	No
Modicon (Modbus)	No

GE-Fanuc (SNP)	No
Functions	
Key repeat	Yes
TAB sequence	Yes
Calculating functions	Yes
Animate	No
Menu tree editor	No
Unit switchover	No
Service tools/configuration aids	
Clean screen	No
Touch calibration	No
Backup/Restore manually	Yes
Simulation	No
Device switchover	Yes
Delta transfer	No
Monitoring function for battery and memory	No
Trace (operation archive)	No
Expandability/openness	
Open Platform Program	No
Dimensions	
Front of enclosure (W x H)	150 mm x 186 mm
Mounting cutout/device depth (W x H / D)	135 mm x 171 mm / 38,5 mm device depth
Weights	
Weight (without packaging)	0.5 kg
Other	
free hotline	Yes
Warranty period	1 a
Status	Jul 30, 2014