

*** SPARE PART*** SIMATIC TOUCH PANEL TP177B DP BLUE
 MODE STN-DISPLAY MPI-/PROFIBUS-DP PROTOCOL RS485-
 /RS422-/USB INTERFACE PRINTER - INTERFACE SLOT FOR
 MMCARD CONFIGURABLE WITH WINCC FLEXIBLE 2005

General information

Customer-specific configuration Yes

Display

Design of display STN
 Screen diagonal 5.7 in
 Color display No
 Number of colors 4; 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

Keyboard fonts

• System keys Yes
 • alphanumeric keyboard Yes
 • hexadecimal keyboard Yes
 • Multi-key operation No

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°

Processor

Processor type RISC 32-bit, 200 MHz

Memory

Type of memory Flash / RAM

Memory available for user data	2 048 kbyte
Time of day	
Clock	
<ul style="list-style-type: none"> • Type 	Hardware clock, synchronizable, no battery backup
<ul style="list-style-type: none"> • retentive 	No
<ul style="list-style-type: none"> • synchronizable 	Yes
Interfaces	
Interfaces/bus type	RS232 optional, 1 x RS422, 1 x RS485 (max. 12 Mbit/s)
Number of RS 485 interfaces	1
<ul style="list-style-type: none"> • Transmission rate, max. 	12 Mbit/s
Number of USB interfaces	1; Up to 1 GB
PC card slot	No
CF card slot	No
Multimedia card/SD card slot	1x Multimedia Card slot, up to 128 MB
Industrial Ethernet	
<ul style="list-style-type: none"> • Industrial Ethernet interface 	No
<ul style="list-style-type: none"> • Industrial Ethernet status LED 	0
Degree and class of protection	
IP (at the front)	IP65
NEMA (front)	NEMA 4, NEMA 4x, NEMA 12 (when installed)
IP (rear)	IP20
Standards, approvals, certificates	
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
Marine approval	
<ul style="list-style-type: none"> • Germanischer Lloyd (GL) 	Yes
<ul style="list-style-type: none"> • American Bureau of Shipping (ABS) 	Yes
<ul style="list-style-type: none"> • Bureau Veritas (BV) 	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	Yes
<ul style="list-style-type: none"> • Polski Rejestr Statkow (PRS) 	Yes
Use in hazardous areas	
<ul style="list-style-type: none"> • ATEX Zone 2 	Yes
<ul style="list-style-type: none"> • ATEX Zone 22 	Yes
<ul style="list-style-type: none"> • FM Class I Division 2 	Yes
Ambient conditions	
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> • 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
Configuration software	
• 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
Message system	
• 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	Yes
• 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
Recipe management	
• Number of recipes	100
• Data records per recipe	200
• Entries per data record	200
• Recipe memory	32 KB integrated Flash, expandable
Variables	
• 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
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	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
Complex image objects	
• Status/control	With SIMATIC S7
• dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
— Number of objects per project	500
— Number of curve diagrams per image	5
• Methods	Trend
• Bar graphs	
— Number of bars per chart	5
• Sliders	

— Number of slides per image	0
• Pointer instruments	
— Number of analog indicators per image	0
• Limit value lines	Yes
• Number of alphanumeric fields	1 000
— alphanumeric fields per image	100
• Number of numerical fields	1 000
— numerical fields per image	100
• Number of password fields	1 000
• Number of visible switches per project	1 000
— visible switches per image	100
— hidden switches per image	100
• Number of status switches per project	1 000
— Number of status switches per image	100
• Number of selector switches per project	1 000
— Selector switches per image	100
• Number of decade switches per project	0
— Decade switches per image	0
• Number of signal lamps per project	1 000
— Signal lamps per image	100
Attributes for dynamic objects	
• Color change	Yes
• X/Y movement	Yes
• Hide	Yes
• Angle of rotation	No
Lists	
• 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
Security	
• Number of user groups	50
• Number of user rights	32
• Password export/import	Yes
Data carrier support	
• CF card	No
Logging through printer	
• Recording/Printing	Alarms, report (shift report), hardcopy
Transfer (upload/download)	

- Transfer of configuration

MPI/PROFIBUS DP, USB, Ethernet, 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

- 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

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 manually

Yes

- Simulation

Yes

- Device switchover

Yes

- Delta transfer

Yes

- Monitoring function for battery and memory

Yes

• Trace (operation archive)	No
Expandability/openness	
• Open Platform Program	Yes
Peripherals/Options	
Peripherals	Printer
• SIMATIC HMI MM memory card: Multi Media Card	Yes
Additional software components loadable	Yes
Dimensions	
Width of the housing front	212 mm
Height of housing front	156 mm
Overall depth	46 mm
Weights	
Weight (without packaging)	0.8 kg
Other	
free hotline	Yes
Warranty period	1 y
last modified:	08/12/2017