

Overview



- Touch Panel for operator control and monitoring of small machines and plants
- Low-cost entry-level product in the category of touch panels with graphics capability and all the basic functions required for simple tasks
- Pixel graphics 5.7" STN touch screen (analog/resistive), Bluemode (4 levels)
- Specially for SIMATIC S7-200: Communication to the PLC through the integrated interface over a point-to-point link
- Connection to the PLC over MPI or PROFIBUS DP cable
- SIMATIC TP 177micro is the innovative successor to the Touch Panels SIMATIC TP 070/TP 170micro

Benefits

- Can even be used where installation space is restricted thanks to vertical installation
- Fast configuring and start-up
- Service-friendly thanks to maintenance-free design and the long service life of the backlighting
- Graphics library is available complete with ready-to-use display objects
- Can be used worldwide:
 - 32 languages can be configured (including Asiatic and Cyrillic character sets)
 - Up to 5 languages are selectable online

Application

TP 177micro Touch Panels can be used wherever small machines and systems are controlled and monitored locally – in production, process and building automation alike. They are used in all types of sectors and applications.

The TP 177micro has been designed specifically for use with the SIMATIC S7-200. With fast response times, it is also ideal for jog mode.

Compatibility with TP 070/TP 170micro

- Same mounting cutout as the TP 070/TP 170micro.

Design

- 5.7" STN display, CCFL¹⁾ backlit, Bluemode (4 levels)
- Resistive analog Touch
- Compact design with small installation depth
- Rugged plastic housing
- The front is resistant to various oils, greases and standard detergents
- Numeric system keyboard for decimal, binary and hexadecimal number formats
- On-screen alphanumeric keyboard
- Plug-in terminals for connecting a 24 V DC power supply
- RS 485 interface for connection of the MPI cable or the PPI adaptor

¹⁾ Cold Cathode Fluorescence Lamps

Operator Control and Monitoring Devices

Micro Panels

SIMATIC TP 177micro

Function

- Input/output fields
for displaying and changing process parameters
- Buttons
for direct triggering of functions and actions. Up to 16 functions can be configured simultaneously on buttons
- Graphics
can be used as icons instead of text to "label" function keys or buttons. They can also be used as background displays (wallpaper).
In the configuration tool, a library is available containing extensive graphics and a wide variety of objects. All editors with an OLE interface can be used as graphics editors (such as PaintShop, Designer or CorelDraw).
- Vector graphics
Simple geometric basic forms (line, circle and rectangle) can be created direct in the configuring tool
- Predefined texts
for labeling function keys, process images and process values in any character size
- Bars
for the graphical display of dynamic values
- Changing languages
- 5 online languages, 32 configuration languages incl. Asian and Cyrillic character sets
- User administration (security)
- Authentication using password
- Signaling system
- Discrete alarms
- Analog messages
- Freely definable message classes (e.g., status/fault messages) for definition of acknowledgment response and display of message events
- Message history
- Help texts
for process images, messages and variables
- Arithmetic functions
- Limit value monitoring
for reliable process control of inputs and outputs
- Indicator light
for machine and plant status indication
- Template concept
Creation of picture templates (picture elements configured in the template appear in every image)
- User-friendly maintenance and configuration thanks to:
 - Backup and restoration of configuration, operating system and firmware on a PC using ProSave
 - Configuration download serially via RS485
 - Individual contrast setting and calibration
 - Clean screen
 - No batteries are necessary

Configuring

SIMATIC WinCC flexible Micro, Compact, Standard or Advanced engineering software Version 2004 SP1 and higher plus HSP is used for configuration. For more information about engineering software, see HMI software/engineering software SIMATIC WinCC flexible. A PC/PPI adapter cable is needed to download the configuration.

Integration

The TP 177micro can be connected to all SIMATIC S7-200-CPU's using the standard MPI bus cables or PROFIBUS DP cables (integration into networks possible).

Note:

For further information see "System interfaces".

Technical specifications

SIMATIC TP 177micro	
Supply voltage	
Supply voltage	24 V DC
Permissible range	+20.4 V to +28.8 V DC
Rated current	0.24 A
Memory	
Type of storage	
• Type	Flash
Memory usable for project data/Options	256 KB
Time	
Clock	
• Type	Software clock, not battery backed
Configuration	
Configuration tool	WinCC flexible Micro Version 2004 SP1, HSP or higher (to be ordered separately)
Display	
Display type	STN, 4 shades of blue
Size	5.7"
Resolution (WxH in pixel)	320 x 240
MTBF backlighting (at 25 °C)	about 50,000 hours
Operating mode	
Operating elements	Touch screen
Function keys, programmable	None
System keys	None
Touchscreen	analog, resistive
Numeric/alphabetical input	Yes / Yes
Ambient conditions	
Mounting position	Vertical
Maximum permissible angle of inclination without external ventilation	+/- 35 °
Max. relative humidity (in %)	90%
Temperature	
• Operation (vertical installation)	0 °C to +50 °C
• Operation (max. tilt angle)	0 °C to +40 °C
• Transport, storage	-20 °C to +60 °C
Degree of protection	
Front	IP65, NEMA 4x, (when installed)
Rear	IP20
Certifications & Standards	
Certifications	CE, GL, ABS, BV, DNV, LRS, FM Class I Div. 2, UL, CSA, cULus, EX-Zone 2 (available soon), EX-Zone 22 (available soon), C-TICK, NEMA 4x
interfaces	
Interfaces	1 x RS485 (max. 187.5 Mbit/s)
Operating systems	
Operating system	LINUX
Processor	
Processor	ARM

SIMATIC TP 177micro	
Functionality under WinCC flexible	
Task planner	Yes
Help system	Yes
Status/control	Not possible
Message system	
• Number of messages	500
• Bit messages	Yes
• Analog messages	Yes
• Message buffer	Ring buffer (n x 128 entries)
Number of process images	
• Process images	250
• Variables	250
• Limit values	Yes
• Multiplexing	Yes
Image elements	
• Text objects	500 text elements
• Graphics object	Bit maps, icons, icon (full-screen), vector graphics
• dynamic objects	Diagrams, bar graphs
Lists	
• Text lists	150
• Graphics list	100
• Libraries	Yes
Security	
• Number of user groups	1
• Passwords exportable	Yes
• Number of users	1
Data medium support	
• Multi Media Card	No
Recording	
• Printer driver	-
Fonts	
• Keyboard fonts	US American (English)
Languages	
• Online languages	5
• 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
• Fonts	WinCC flexible Standard, symbol languages
Transfer (Upload/Download)	
• Transfer of configuration	serial
Process coupling	
• Connection to controller	for S7-200, see section on "System interfaces"
Expandability/openness	
• Open Platform Program	No
Dimensions	
Front of enclosure (W x H) in mm	212 x 156
Mounting cutout/Device depth (W x H/D) in mm	198 x 142 / 45
Weight	0.75 kg

Operator Control and Monitoring Devices

Micro Panels

SIMATIC TP 177micro

Ordering data

Order No.

SIMATIC TP 177micro C **6AV6 640-0CA11-0AX1**

Touch Panel for connection to the SIMATIC S7-200, 5.7" STN display

TP 177micro starter package F **6AV6 650-0DA01-0AA0**

Consisting of:

- TP 177micro Touch Panel
- SIMATIC WinCC flexible Micro engineering software
- SIMATIC HMI Manual Collection (DVD), 5 languages (English, French, German, Italian, Spanish), comprising: all currently available user manuals, manuals and communication manuals for SIMATIC HMI
- MPI cable (5m) (for test purposes)

Configuration

with SIMATIC WinCC flexible

see HMI Software

Documentation (to be ordered separately)

Operating Instructions OP 73micro, TP 177micro

- | | |
|-----------|----------------------------|
| • German | 6AV6 691-1DF01-0AA0 |
| • English | 6AV6 691-1DF01-0AB0 |
| • French | 6AV6 691-1DF01-0AC0 |
| • Italian | 6AV6 691-1DF01-0AD0 |
| • Spanish | 6AV6 691-1DF01-0AE0 |

WinCC flexible Micro User Manual

- | | |
|-----------|----------------------------|
| • German | 6AV6 691-1AA01-3AA0 |
| • English | 6AV6 691-1AA01-3AB0 |
| • French | 6AV6 691-1AA01-3AC0 |
| • Italian | 6AV6 691-1AA01-3AD0 |
| • Spanish | 6AV6 691-1AA01-3AE0 |

SIMATIC HMI Manual Collection B **6AV6 691-1SA01-0AX0**

Electronic documentation, on DVD

5 languages (English, French, German, Italian, Spanish); contains: all currently available user manuals, manuals and communication manuals for SIMATIC HMI

Accessories

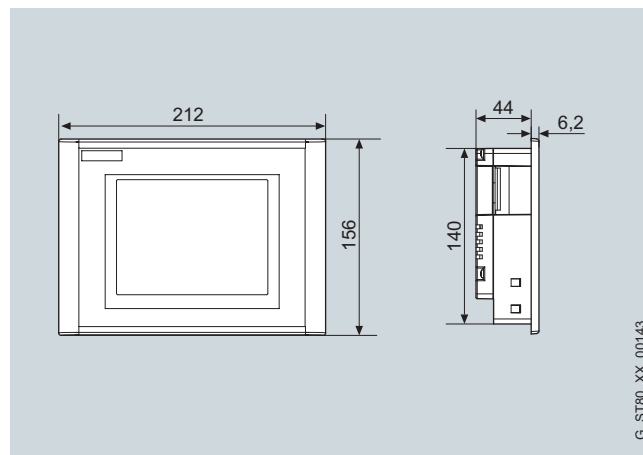
Accessories for supplementary ordering

see HMI accessories, from page 2/158

- B) Subject to export regulations: AL: N and ECCN: EAR99S
 C) Subject to export regulations: AL: N and ECCN: EAR99T
 F) Subject to export regulations: AL: N and ECCN: 5D002ENC3

Dimensions

All specifications in mm. Panel cutout see technical specifications.



More information

Additional information is available in the Internet under:

<http://www.siemens.com/panels>

Note:

Do you need a specific modification or option for the products described here? Then look up "Customized products", where you will find information about additional sector-specific products that can be ordered as well as about options for customer-specific modification and adaptation.