

SIMATIC TP170A/TP170B/OP170B Cost-effective control and monitoring

Product Brief

Userfriendly at an affordable price

The OP170B Operator Panel and the TP170 Touch Panel have incredible value for the money. They are the most cost-effective entry-level 'graphics-based' devices available. The Windows®CE-based panels are graphics-compatible for simple applications and are especially suited to those on a tight budget.

SIMATIC TP170A

Uniquely cost-effective for simple tasks in conjunction with any SIMATIC® S7 controllers

SIMATIC TP170B/OP170B

The universal entry-level devices for graphical applications, with amazing functionality

Highlights

- All the interfaces and drivers are already on-board, there are no additional costs
- Simple and quick to configure under Windows using the cost-effective SIMATIC ProTool/Lite® package
- Simulation of the configuration on the PC using ProTool/Lite
- Remote configuration download with automatic transfer recognition, even by modem.
- A wide range of online languages – e.g. Cyrillic, Chinese, Taiwanese, etc. – so it can be used anywhere in the world
- Easy to service thanks to its maintenance-free design with back-lighting which will last up to 50,000 hours (or 6 years if running 24 hours a day)
- Once a configuration has been created, it can be processed further on any panel of the SIMATIC range.

SIMATIC HMI



- Also available in tailored versions to meet customer-specific requirements – whether they need a customized front design, a different layout or a complete OEM product.
- Future-proof with the innovative standard operating system Windows CE

TP170B and OP170B also offer the following:

- Integrated printer interface
- Up to three online languages
- A slot for a Compact Flash Card, which can be used for formula data sets and backing up the configuration

Powered by
Microsoft®
Windows®CE

TP170A



TP170B



OPT170B



An overview of the technology

Display	CCFL back-lit (Cold Cathode Fluorescence Lamps), 320 x 240 pixels		
Screen size (W x H in mm)	116 x 87 (5,7")		
Representation	Blue Mode (4 levels)	Blue-Mode (4 levels) or color ¹⁾ (16 colors)	Blue-Mode (4 levels)
MTFB back-lighting at 25 °C	approx. 50,000 h (roughly equivalent to 6 years running 24 hours a day)		
Keyboard type	Touch		
Function keys	(resistive/analog)		
Numeric / character input	☺ / A-F	☺ / ☺	☺ / ☺
Processor, operating system	32 Bit RISC/66 MHz, Windows CE		
Memory	256 KByte Flash		
User memory (for configuration, on board)	512 KByte Flash		
Compact Flash Slot	☺		
Interfaces	RS232		
IF1/A	RS232		
IF2	-		
IF1/B	RS422, RS485 (1.5 Mbit/s)		
Connection to PLC	SIMATIC S7 and SIMATIC WinAC® Soft-/Slot-PLC (Version 3.0 and higher) or via PROFIBUS-DP, Lucky Goldstar SIMATIC S5/505, or via PROFIBUS-DP, Allen Bradley, Mitsubishi, Telemecanique, AEG Modicon serial (IF2)		
Printer	-		
Power supply	24 V DC (+18 to +30 V)		
Power consumption	typical	approx. 240 mA at 24	approx. 500 mA at 24 V
Clock	☺ not buffered (automatic time synchronization with the CPU possible)		
Dimensions (mm)	212 x 156		
Frontplate W x H	198 x 142 x 45		
Insertion slot W x H x D	240 x 252		
	229 x 241 x 45		
Environmental conditions	0 to +50 °C (horizontal installation), 0 to +40 °C (max. inclination 35° from horiz.), -20 to +60 °C (transport/storage)		
Temperature	- 85 % RH; no condensation		
Humidity	IP65/IP20		
Degree of protection at front / back	CE/UL/CSA/FM/Nema 12		
Certification			
Functionality	All values given are maximum values relative to function in question. The total number of elements is restricted by the size of the user memory.		
Event / alarm messages	typical	100/-	200/200
Message buffer	-		☺
Variables	typical	100	250
Process screens	typical	20	100
Text element	typical	100	1000
Character height	scaleable (True Type Font)		
Graphics objects	typical	20, full graphics	50, vector graphics
Dynamic objects	input, output, input output fields, date/time fields, status displays for buttons and signal lamps, bars, figure output, etc.		
Variable per image	typical	20	Trends, text and graphics lists
Scaling	typically	-	50
Info texts	-		20 (32 KByte integrated formula memory)
Password levels	1		☺
Online languages	1		9
			3
	20 Runtime languages available, including Chinese, Korean, Taiwanese and Russian)		
Configuration	SIMATIC configuration software ProTool/Lite, ProTool® or ProTool/Pro®; runs under Windows 95/98/NT 4.0/2000		

1) Available as of 11/2000

SIMATIC TP170A/TP170B/OP170B

Cost-effective control and monitoring

Buttons or touch-screen – the task determines the application

The SIMATIC TP170's touch-sensitive screen enables intuitive control and monitoring. For applications that cannot do without mechanical buttons, the OP170B is available with a membrane keyboard.

Robust for industrial use

With their robust faceplates which conform to degree of protection IP65, the panels are ideally suited for use at the machine level.

Efficient configuration using SIMATIC ProTool/Lite

The SIMATIC TP170 and OP170B are part of a complete, consistent range of panels from SIMATIC HMI®. All SIMATIC panels are configured using one Windows-based configuration software: SIMATIC ProTool. For the TP170 and OP170B, the affordable package ProTool/Lite is used.

Integral component of SIMATIC

Of course the TP170 and OP170B have been designed to take full advantage of the Totally Integrated Automation® (T.I.A.) concept that reduces engineering costs. For example, accessing the STEP®7 database avoids having to duplicate entries.

All interfaces and drivers are already on-board

The interfaces and drives for the various interfacing options are already integrated.

They can be connected to the following:

- SIMATIC S7
- SIMATIC WinAC, Version 3.0 and higher
- Lucky Goldstar

TP170B and OP170B can also be connected to the following:

- SIMATIC S5
- SIMATIC 505
- via PROFIBUS-DP to SIMATIC controllers
- Allen Bradley
- Mitsubishi
- Telemecanique
- AEG Modicon
- Printer

Amazing functionality

TP170A, TP170B and OP170B have the practical functionality to master all the tasks required of them with ease. During configuration, you can access graphs, bar charts, input and output fields, scalable fixed texts, messages and much more. For TP170B/OP170B, you can even use trends, scaling text and graphics lists, to name but a few.

The TP170 also has touch-specific functions such as on-screen buttons, indicator lights and buttons from the ProTool standard library.



More information can be found on the Internet at:
www.siemens.com/panels

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