

PROFIBUS



PROFIboard

APPLICATION

PROFIboard is an intelligent PC board used to integrate PC-based systems into a PROFIBUS network in a cost effective and easy-to-use way.

Applications such as Human Machine Interfaces (HMI), SCADA systems, operator interfaces or PC-based controllers can take advantage of the flexibility and functional completeness provided by the various types of PROFIboard.

The different hardware options enable users to select the board which best fits their needs:

- Single-channel ISA board
- Single-channel PCI board
- Dual-channel PCI board

Because various PROFIBUS protocols are supported, PROFIboard can be used extremely flexibly and within changing application environments.

The following options are supported:

- DP master class 1 and class 2
- DP slave
- FMS master or slave
- FDL (Fieldbus Data Link protocol)
- Enhanced DP functions (DP/V1)

All the options listed above are included in the standard scope of delivery. No protocol upgrades are required to switch between options. Users will not be burdened by loss or malfunctioning of hardlocks, software tokens or any other external copy protections.

The application interface of PROFIboard is compatible to those of other Softing products such as PROFICard, PROFI104 or PROFIgate. Not only OPC- and DDE servers are available, but also drivers for all important operating systems.

The protocol software running on the board is used by many device vendors and has passed various quality assurance programs. Of course it is certified by the PROFIBUS User Organization.



SCOPE OF FUNCTIONS

PROFIboard provides the complete PROFIBUS protocol of layers 1, 2 and 7 as specified in the European standard EN 50 170, part 2. Transfer rates up to 12 Mbit/s are supported by every hardware option. The single-channel versions (ISA and PCI) provide master as well as slave functionality. The dual-channel version adds a second channel with master capability.

The boards are equipped with a DC-isolated RS-485 transceiver and interfaces to the PROFIBUS cable via a 9-pin, Sub-D female connector. Intelligent communication capabilities are ensured through the microprocessor SAB-C165. The easy-to-use application interface features an MS-Windows NT driver.

As an option, Softing offers DDE and OPC (Open Process Control) Servers for easy integration of PROFIBUS communication into standard application software packages.

Software updates can be downloaded via Internet. A well-trained service team can be contacted by phone, fax or email in case of support requests.

TECHNICAL DATA		Single-channel ISA board	Single-channel PCI board	Dual-channel PCI board
Unit	ISA PC board, short AT-format PCI board, compliant to PCI spec. V 2.1 or higher	■	–	–
CPU	Microprocessor Siemens SAB-C165	■	■	■
Memory	512-Kbyte Flash 512-Kbyte SRAM 16-Kbyte dual-port RAM	■	■	■
Supported PC interrupts	5, 10, 11, 12, 15 Controlled by operating system	■	–	–
PROFIBUS ASIC	Siemens ASPC2 and SPC3	■	■	■
Physical interface	Galvanically isolated RS-485	■	■	■
Connector type	1 x 9-pin Sub-D female 2 x 9-pin Sub-D female, axial version	■	■	–
Connector pinning	According to EN 50 170, part 2	■	■	■
Hardware configuration	The I/O address is set by a switch on the board; all other settings configurable via software. Controlled by operating system	■	–	–
Power supply	+5 V (+- 5 %); typ. 700 mA +5 V (+- 5 %); typ. 900 mA	■	■	–
Permissible ambient conditions	Operating temperature: 0 °C up to 55 °C Storage temperature: - 20 °C up to 70 °C Relative humidity: < 90 %, non-condensing	■	■	■
Transfer rate	9.6 Kbit/s up to 12 Mbit/s	■	■	■
SOFTWARE REQUIREMENTS				
Option A.	PROFI-DMK-NT: PROFIBUS Application Programming Interface (PAPI); demo programs; PAPI user manual (English version); Windows NT™ driver	■	■	■
Option B.	DDE Server for Windows NT™ (16-bit), Windows NT™: FMS Client; DP master class 1; function block for S5-95U and S7-300S; symbolic configuration manager.	■	■	■
Option C.	OPC Server for Windows NT™: OPC Server DP; user manual; key and sample Client	■	■	■
Option D.	PROFI-DMK-3: PROFIBUS Application Programming Interface (PAPI) for Windows™ (16-bit) or MS-DOS™; PROFIBUS program library and DLL; demo program; PAPI user manual (English version)	■	–	–
Option E.	Driver software for Windows 95/98 (in preparation)	–	■	■
HARDWARE REQUIREMENTS				
■ IBM PC/AT or compatible PC		■	–	–
■ IBM PC/AT or compatible PC, with PCI interface V 2.1 or higher		–	■	■
SCOPE OF DELIVERY				
■ PROFIBUS PC interface		■	■	■
■ Hardware user manual (English version)		■	■	■
ORDERING INFORMATION		PB-IF-03*	PB-IF-1MS	PB-IF-2MS
According to software requirements, optionally:				
■ PROFI-DMK-NT		■	■	■
■ PROFI-DMK-3		■	–	–
■ DDE Server (see corresponding Data Sheet)		■	■	■
■ OPC Server (see corresponding Data Sheet)		■	■	■
	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> ■ PB-TK-M * ■ PB-TK-DPS ■ PB-DMK-DPS </div>			

Please ask for more information and assistance



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