



Bus Monitor USB

PROFIBUS DP/PA/FOUNDATION FIELDBUS H1 Diagnosis Tool

□ Description

The Bus Monitor is an indispensable tool for commissioning, maintenance and diagnostics of PROFIBUS and FF H1 networks as well as for the development of PROFIBUS and FF H1 products.

The Bus Monitor can easily be installed on a notebook or a desktop PC via USB 2.0 interface. The low power requirement (approx. 40 mA) through the USB interface allows long run-time battery option of modern notebooks. This makes it perfectly suited for the requirements of every day use. The handling is user-friendly without time consuming training.

In PROFIBUS online operation the Bus Monitor records the message interchange up to a baud rate of 12 Mbit/s with single bit accuracy. Also faulty telegrams are recorded. The passive RS485 interface, which is integrated in the plug, guarantees a reaction less measurement during the operation of the bus. During the tests a list of all existing devices/stations with their respective addresses (live list) is shown.

In the offline mode the recorded messages are displayed. They can be decoded on different protocol levels (physical level, FDL, DP/DPV1, DPV2).

The recording contains a precise time stamp that can be calculated in milliseconds, bit times, absolute time, or time difference between succeeding messages. The recorded messages can be stored in different formats and are then available for processing with external tools. A various number of filters can be defined for recording as well as for displaying messages. These filters can be also used to search for certain messages. The start of a recording session can be defined by trigger conditions, i.e. a certain telegram or the n-multiple appearance of a telegram.

The PROFIBUS and FF H1 operation also provides a large number of trigger and filter options as well as an offline presentation of the process values.

Via the DCOM interface the Bus Monitor can be remote-controlled by any other computer. Especially, the logging function for long time supervision of networks, recording of changes of the bus configuration, as well as the analysis of the bus characteristics (error rate, bus load, ratio of user data to protocol overhead) can be used comfortably from the remote PC.

Additional software modules extend the Bus Monitor's field of application substantially.

Conti Module

PROFIBUS DP telegrams are continuously recorded during an arbitrary length of time. The only limitation is the available hard-disk space.

Spy Module

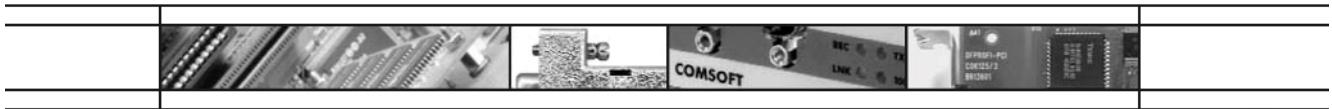
The Spy Module offers extensive possibilities of comfortably listening to the bus communication in online or offline mode. Owing to GSD based decoding and various analysis functions, all important characteristics of the manufacturing network are prepared graphically or in tabular form.

OPC Module

The OPC Module provides an open interface through which all data recorded and prepared by the Bus Monitor can be accessed online.



Bus Monitor USB



□ **Technical Data**

System Prerequisites	PENTIUM IV processor, 1,4 GHz, 512 MB RAM, one port for USB 2.0 (highspeed), operating system MS-Windows 2000/XP/Vista/7 (beta)	
Interfaces	USB 2.0 (highspeed): USB plug type A RS485: Sub-D 9 pins socket and plug	
Baud Rates	9.6 kbit/s - 12 Mbit/s	
Dimensions	Cable length	1.8 m
	Probe head (L x W x H)	40 mm x 38 mm x 18 mm
Operating Temperature	0 - 70 °C	
Insulation Voltage	At least 2500 V	
Supply Voltage	4.9 - 5.1 V (through USB interface)	
Power Consumption	20/38/47 mA	

□ **Order Numbers**

Order No.	Item
4000-7-0 L - 3 -*	Bus Monitor USB - Basic Version Includes PROFIBUS DP probe head with USB 2.0 interface as well as essential software
4000-7-0 M - 3 -*	Bus Monitor USB PA with DP Includes active probe head with full functionality of the Basic Version + Connection to PROFIBUS PA
4000-7-0 N - 3 -*	Bus Monitor USB FF H1 with DP Includes active probe head with full functionality of the Basic Version + Connection to FOUNDATION FIELDBUS H1
4000-7-0 P - 3 -*	Bus Monitor USB DP with PA or FF H1 One of the active probe heads (FF H1 or PA) together with one active DP probe head - Combination of the full functionality of the PROFIBUS DP and the PA or FF H1 Version
	Additional Software Modules
4000-7-0 E -*	Conti Module
4000-7-0 F -*	Spy Module
4000-7-0 G -*	OPC Module
	4 weeks rental within the EU
4000-7-0 o - 3 -*	Bus Monitor USB with software

* Please complete the order number either with E for a documentation in English or D for a documentation in German.