

## Protocol Analyzer for PROFIBUS DP and PA

Detailed Analysis of Bus Communication

The PROFIBUS Protocol Analyzers are efficient tools for testing the bus communication on PROFIBUS DP and PA segments during operation.

### **AN EAR TO PROFIBUS**

The BC-400-PB PROFIBUS Protocol Analyzer is a tool for analyzing PROFIBUS DP communication. The BC-450-PB allows analyzing the communication on PROFIBUS DP and PA simultaneously, e.g. before and after a link or coupler. Both tools can be used for setup and commissioning, acceptance testing, optimization, troubleshooting and laboratory tests relating to fieldbus communication.

### **ALL BUS DEVICE STATES AT A GLANCE**

The PC software is very simple to use. One mouse click starts the protocol analysis. The test results are clearly structured. The status of each bus device is color coded in a live list for easy readability. Classical frame analysis functions that only experts need are accessed separately from the standard functionality. This makes the tool ideal for both, users with a basic knowledge of the PROFIBUS protocol and fieldbus specialists.

### **INTUITIVE USE AND CLEAR READINGS**

The PC software provides many features for performing, analyzing and managing bus tests. In the Network Status view, the bus communication can be analyzed with a Quick Test or a User-Controlled Test. The test results include a live list with the color coded state of each bus device, an event log, counters for retries, restarts and diagnostics, the input/output/parameter and configuration data of the slaves, and decoded diagnostic messages in plain text based on the GSD files.

In Expert mode, the Frame view allows tracing and displaying all bus traffic according to user-defined trigger and filter settings for PROFIBUS services, addresses and data.

The baud rate is detected automatically when a test is started. As soon as the test is completed, a detailed test report can be generated. The protocol analyzer also provides a special long-term trend function that helps detecting sporadic faults.

### **CUSTOMER BENEFITS**

- > All Bus Device States at a Glance
- > Complete Event Log
- > Diagnostic Messages in Plain Text



## TECHNICAL DATA

RS485 Interface (PROFIBUS DP)	9-Pin D-Sub Connector with Power Supply for Pptional BC-131-PB Active Cable, Galvanic Isolation Baud Rates: 9.6, 19.2, 45.45, 93.75, 187.5, 500, 750 Kbit/s, 1.5, 3, 6, 12Mbit/s
MBP Interface (BC-450-PB only)	3-Pin Screw Terminal, Galvanic Isolation, Bus Powered Medium Attachment Unit Baud Rate 31.25Kbit/s
USB Interface	USB Version 2.0, High Ppeed (480Mbit/s) and Full Speed (12Mbit/s) with Automatic Detection Connector: USB Type B with USB Cable A-B to PC
External Trigger Interface	Not Active
Status LEDs	RS485 Status, USB Status, MBP Bus Power (BC-450-PB only)
Power Supply	5V (from USB), < 300mA
Permissible Ambient Conditions	Operation: 0°C ... +55°C (Without Condensation) Storage: -20°C ... +70°C
Housing	Aluminum
Dimensions (WxHxD)	69mm x 24mm x 124mm
Weight	Approximately 200g
Conformity	CE, FCC, VCCI
Protection Class	IP20
Operation	Via PROFIBUS Diagnostics Suite PC Software, See Separate Data Sheet

## ORDER NUMBER

BC-400-PB	PROFIBUS DP Protocol Analyzer in Carrying Case, Including USB Power Supply, RS485 D-Sub Adapter Cable, USB Connection Cable, User Manual, and PB-DIAG-SUITE
BC-450-PB	PROFIBUS DP+PA Protocol Analyzer in Carrying Case, Including USB Power Supply, RS485 D-Sub Adapter Cable, MBP Terminal Block, USB Connection Cable, User Manual, and PB-DIAG-SUITE



## ADDITIONAL PRODUCTS AND SERVICES

BC-131-PB	Optional Active Connecting Cable for Remote Connection and for Analyzing Live PROFIBUS Segments With Reduced Influence on Their Operation, Spur Cable (3m), Bus-powered Internal Repeater
BC-PBMB-PB-S	D-Sub Service Interface with Active Bus Termination and 90° Angled Connector for PROFIBUS DP
TRA-PB-TECH	PROFIBUS Technology Training, 2 Days
TRA-PB-TS	PROFIBUS Troubleshooting Training, 3 Days

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