

# PROFIBUS Tester

## PB-T3

Precise Analysis of Signal Quality and Configuration



PB-T3

The PB-T3 PROFIBUS Tester is a universal measuring instrument for analysis, monitoring, error finding and maintenance of PROFIBUS systems. Typical operating faults for plants running PROFIBUS, such as station failure,

communication errors or even plant shutdowns, are frequently due to the bus electrics and cabling. PB-T3 provides an overview of the signal conditions on the bus, thus helping users to quickly find and correct errors.

### Measured Data/Functions

- ▶ Disturbance-free voltage range  
Overview measurement, logger measurement
- ▶ Signal shape  
Station-specific measurement with built-in oscilloscope
- ▶ Signal edges  
Quality of rising and falling edges
- ▶ Bus status  
Detection of bus activity, measurement of differential voltage when idle
- ▶ Bus cycle time  
Token rotation time of a master
- ▶ Error counter  
Detection of erroneous frames
- ▶ Topology scan  
Measurement of the line lengths between stations
- ▶ Multiple address detection  
Detection of multiple identical PROFIBUS addresses
- ▶ Master simulator  
Permits measurement without bus master, automatic station scan
- ▶ Trigger output  
Station-specific trigger signal for controlling an oscilloscope
- ▶ Report generator  
Creates a user-configurable test report

### Technische Daten:

- ▶ Connection
  - PROFIBUS 2 x 9-pin female D-sub connector (also M12, via supplied adapter cable)
- ▶ Protocols
  - PROFIBUS DP and FMS
- ▶ Data transfer rates
  - 9.6 - 12000 kbits/s incl. 45.45 kbits/s, automatic recognition
- ▶ Measuring range
  - Typ. 0.4 ... 5 V, resolution: 50 mV, Signal sampling with 16 samples per bit
- ▶ Power supply
  - Via supplied wide-range power supply
- ▶ Dimensions in (W x H x D):
  - 109 x 35 x 143 in mm
- ▶ Temperature
  - Ambient: 5°C - +40°C
  - Storage: -20°C - +60°C



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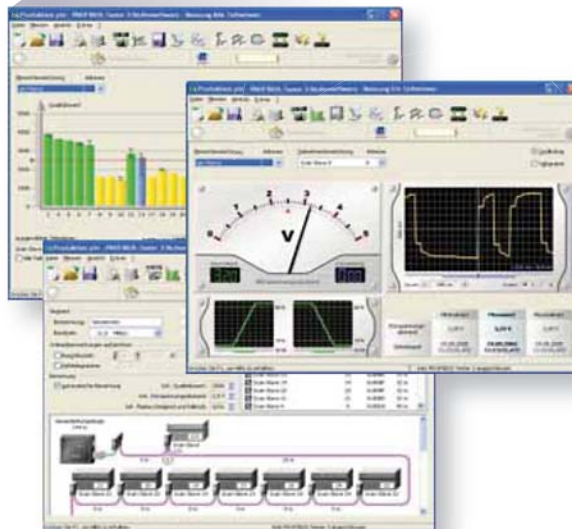
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## Find Errors Easily

PB-T3 is quickly connected to any PC via USB. Besides automatically detecting the baud rate and the individual devices of the system to be analyzed, it determines the signal quality of each device on the bus. Thereby it also shows the signal shape with its built-in storage oscilloscope. PB-T3 also provides a master simulator which permits checking the PROFIBUS installation even without having the actual bus master in operation.



PB-T3 determines signal quality and network topology

The detection of multiple identical station addresses and the determination of the bus cycle times help to ensure the correct configuration of the system. In addition, PB-T3 can determine the topology of a plant, thereby localizing sources of error with exact position information.

Other convenient features include the comprehensive, automatically generated test report and the possibility to export the measurement results as CSV files and graphics for further processing, for example in MS Office programs.

## Features:

- ▶ System Requirements
  - PC with Windows XP, Windows Server 2003, Windows 2000 or Windows ME/98
- ▶ PC Connection
  - USB 1.1
- ▶ Oscilloscope
  - Trigger output galvanically isolated, BNC jack



Everything is always at hand in the practical service case

## Scope of Delivery:

PB-T3 hardware, wide-range power supply, tester software on CD, user manual and a comprehensive range of accessories in a handy carrying case.

## Order Data:

PB-T3

Order no.: 500-PB-T3