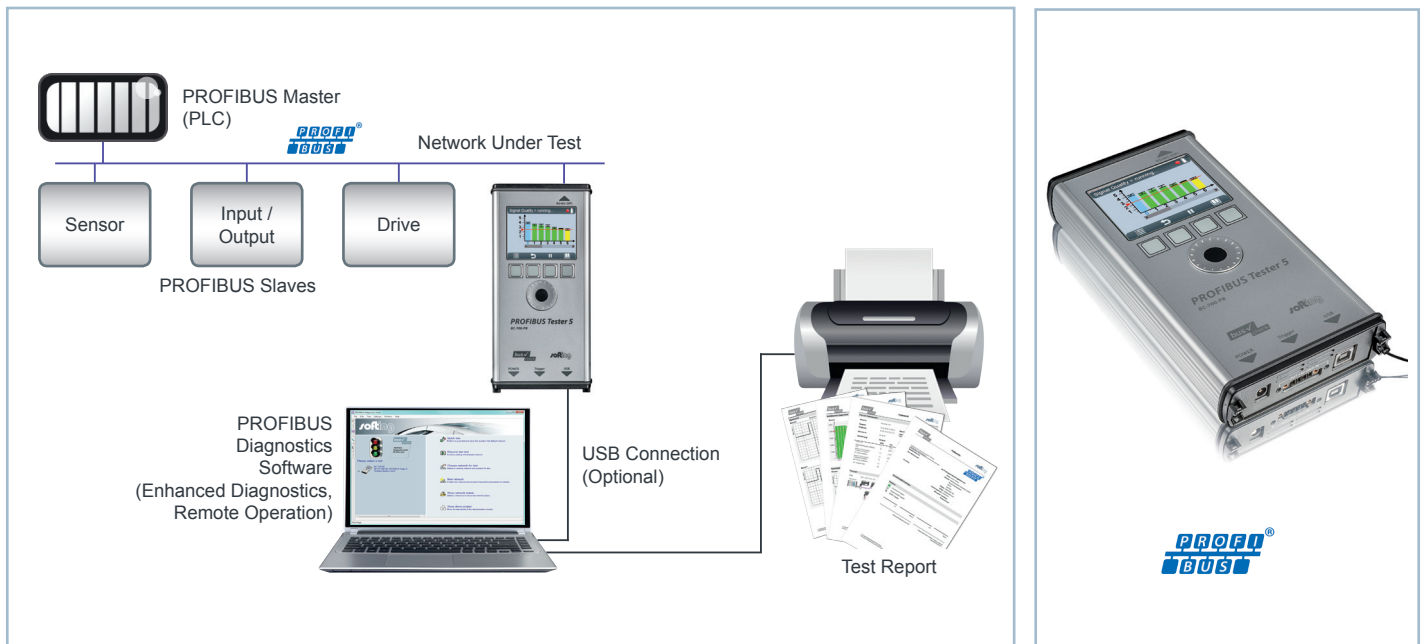


# PROFIBUS Tester 5 BC-700-PB

## Quick and Easy Testing of Bus Physics, Bus Communication and Cabling

The PROFIBUS Tester 5 BC-700-PB is a powerful diagnostic and troubleshooting tool for testing the cables, measuring the signals and analyzing the communication of PROFIBUS networks. It is battery-powered and provides a graphical display, allowing for quick results when working in stand-alone mode. In addition, the PROFIBUS Tester 5 BC-700-PB supports the export of test results for advanced analysis.



### Testing Bus Cabling, Bus Physics and Bus Communication “All-In-One”

- > Combination of signal tester, storage oscilloscope, protocol analyzer, master simulator and cable tester functionality in a single diagnostics tool
- > Stand-alone mode plus extended PC-based diagnostics
- > Suited for installation, setup and commissioning, documentation, acceptance testing, network optimization, preventive maintenance, troubleshooting as well as laboratory tests

### Highly Mobile Bus Tester for Testing Even Without a Notebook

- > Battery-powered operation without the need for additional power supply
- > Graphical display providing easy-to-understand presentation of test results
- > Comprehensive network tests in stand-alone mode without requiring a notebook

### Enhanced Diagnostic Features Through Complementing PC-Based Software

- > Many additional features for executing, analyzing and managing bus tests in PC mode (Trend, Topology Scan, Master Simulator, Oscilloscope, Frame Analyzer)
- > Quick Test and User-Controlled Test for easy network status assessment at the push of a button
- > Generation of test reports describing the actual status of the PROFIBUS installation
- > Ideal for less experienced users as well as for fieldbus specialists

## Technical Data

### Diagnostics Functionality

|                             |   |
|-----------------------------|---|
| Protocol and Frame Analysis | PROFIBUS DP-V0 and DP-V1, automatic baud rate detection in the range of 9.6 kbit/s ... 12 Mbit/s  |
| Signal Analysis             | PROFIBUS DP-V0, DP-V1, FMS and MPI; signal quality index 0 ... 5,000, determined from signal waveform as well as signal/noise ratio and rise time; signal sampling with 8/16 samples per bit                            |
| Oscilloscope Display        | Test range: $\pm 5$ V at 10 mV resolution (differential), 0 V ... 15 V at 15 mV resolution (A or B to DGND); sampling rate: up to 384 Msamples/s; sampled points: 2,400 (signal details), 8,192 (oscilloscope analysis) |
| Topology Scan               | Active, maximum distance: 230 m, accuracy: $\pm 2$ m  |
| Cable Test                  | Active, supported cable segment length: 5 m ... 1,500 m, accuracy: 5 %  |

Operation Via graphical colour display, four function keys and scrollwheel including central push-button or via PC/notebook

Internal Memory Capacity 3 user-definable network directories (segment and test location) for storing quick tests, trend logs and cable test results  
Trend logging: max. 99 hours

Trigger IN: L = 0 V .. 0.8 V; H = 2.4 V .. 24 V; pulse > 10  $\mu$ s, active high  
OUT: approximately 5 V, active low (connection to storage oscilloscope)

PC Operating Software PROFIBUS Diagnostics Suite, see separate datasheet for details

### Connectors

|                       |   |
|-----------------------|---|
| EIA-485 (PROFIBUS DP) | PROFIBUS D-sub connector, 9 pins, power supply for external bus termination |
| USB                   | V 2.0, high speed 480 Mbit/s, galvanically isolated                         |

Dimensions (H x W x D) 35 mm x 220 mm x 110 mm

Power Supply Built-in three-cell lithium-ion battery supporting 11.1 VDC or external AC adapter 100 VAC ... 240 VAC, 50/60 Hz (galvanically isolated)  
The rechargeable battery has a runtime of up to 5 hours (runtime depends on the performed test functionality and rate of wear of the rechargeable battery)  
Battery is charged via external AC adapter

Operating/Storage Temperature Operating temperature: 0 °C ... 50 °C, storage temperature: -20 °C ... 70 °C

Relative Humidity Air humidity: 10 % ... 90 % without condensation

Weight Test tool, no cable: approximately 0.75 kg; complete carrying case: approximately 4.2 kg

Conformity CE, FCC, VCCI

## Scope of Delivery

Hardware PROFIBUS Tester 5 BC-700-PB, power supply unit 100 VAC ... 240 VAC, 50/60 Hz with connecting cables for Europe and USA, adaptor cables, carrying case

Software PROFIBUS Diagnostics Suite (PC software for Windows on CD-ROM)

Documentation Device manual, "Getting Started" manual

## Order Numbers

DDA-NN-006014 PROFIBUS Tester 5 BC-700-PB

## Additional Products and Services

BC-600-PB PROFIBUS Tester 4 "all-in-one" for PROFIBUS DP bus physics and communication

BC-600-PB-CB-M12 D-Sub to M12 adapter set with T-piece and M12 bus termination for PROFIBUS DP

PB-LSZ-CHB3 Digital fieldbus leakage current clamp for locating EMC problems, 40 Hz ... 1,000 Hz, Min/Max, Data Hold, measuring cables, supplied in handy case (fits into empty compartment of carrying case)

BC-PBMB-PB-S D-Sub service interface with active bus termination and 90° angled connector for PROFIBUS DP

BC-M12DP-PB M12 service interface for PROFIBUS DP, comprising M12 T-piece, end cap, M12 connection cable (1 m)

TRA-PB-TECH Training „PROFIBUS Technology“, 2 days

TRA-PB-TS Training „PROFIBUS Troubleshooting“, 3 days

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