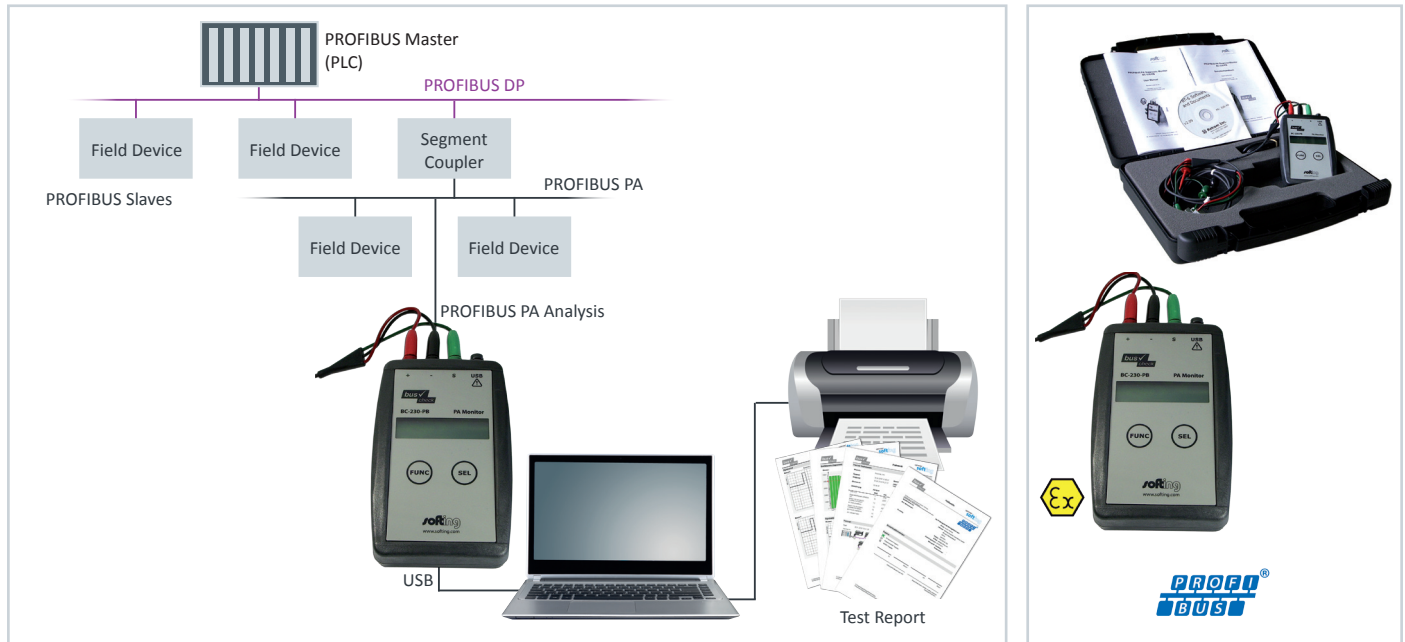


Diagnostic Monitor for PROFIBUS PA (BC-230-PB)

Quick and Easy Bus Testing

The Diagnostic Monitor is a versatile tool for testing PROFIBUS PA during operation. It is powered by the fieldbus so that no battery or external power source is required. The monitor is also suitable for use in hazardous areas.



Universal Application

- Testing of the bus physics
- Verification of stable communication between the bus devices
- Universal tool for setup and commissioning, documentation, acceptance testing, predictive maintenance, and troubleshooting

Very Simple to Use

- Outstanding ease of use based on display and two function buttons
- Clear classification of test results as either OK or BAD
- Ideal choice even for less experienced users

Fully Automatic Bus Test

- Automatically powered by fieldbus and start of segment testing without operator intervention after attachment to PROFIBUS PA network
- Information in plain text, if measured data exceeds tolerance limits
- Measurement of segment voltage as well as average noise and peak noise for three frequency ranges
- Reliable detection of short circuits between individual signal wires and cable shield
- Detection of all frame retransmissions and all devices added or dropped during bus operation at field device level
- Determination of current and lowest signal levels of all devices
- No PC or notebook needed for testing the bus
- Internal storage of test data for later transfer to PC
- Detailed test reports in Microsoft Excel or text format

Technical Data

Input Voltage:	Fieldbus Mode: 8 VDC ... 32 VDC, USB Mode: 4.1 VDC ... 5.5 VDC
Maximum Input Current:	Fieldbus Mode: 10 mA*, USB Mode: 30 mA
Power Dissipation:	Fieldbus Mode: maximum 320 mW (at 32 VDC), USB Mode: maximum 165 mW (at 5.5 VDC)
DC Voltage Measurement Range:	8 VDC ... 32 VDC, ± 0.5 VDC
Signal Level Measurement Range:	0.12 Vpp ... 2 Vpp, $\pm 10\%$, ± 0.025 Vpp
LF Noise Measurement Range:	50 Hz ... 4 KHz, 0 mVpp ... 1000 mVpp, $\pm 15\%$, ± 25 mVpp**
FF Noise Measurement Range:	9 KHz ... 40 KHz, 0 mVpp ... 1000 mVpp, $\pm 10\%$, ± 25 mVpp**
HF Noise Measurement Range:	90 kHz ... 350 KHz, 0 mVpp ... 250 mVpp, $\pm 20\%$, ± 25 mVpp**
Operating Temperature:	-20 °C ... $+50$ °C***
Dimensions:	146 mm x 88 mm x 28 mm
Weight:	378 g
Case Material:	ABS
Conformity	CE, FCC
Hazardous Area Approvals	FM USA and Canada: Class I Division 2 Groups A, B, C and D T4 Class I Zone 2 Group IIC T4 Class I Division 1 Groups A, B, C and D T4 Class I Zone 0 and 1 Ex/AEx ia IIC T4 ATEX Ex ia IIC T4 ATEX Ex nL IIC T4 ATEX Ex ic IIC T4
Data Transfer to PC	Via supplied PC software for Windows 2000, Windows XP, Windows VISTA and Windows 7 (32 Bit and 64 Bit) and USB interface, Version 1.1 or 2.0

* In Fieldbus Mode, the Diagnostic Monitor is powered by the fieldbus and draws approximately 9.4 mA of current from the segment (depending on bus voltage and ambient temperature)

** Vpp = Volts (Peak-to-Peak); excessive noise adjacent to the fieldbus frequency (FF) band will prevent the Diagnostic Monitor from reading the fieldbus data and thus reduce functionality

*** Display update speed is impaired below -10 °C

Scope of Delivery

Hardware	Diagnostic Monitor for PROFIBUS PA (BC-230-PB), connection cables, carrying case
Software	PC software (in English) on CD-ROM
Documentation	Manual (in English), certificates (in English)

Order Numbers

BC-230-PB	Diagnostic Monitor for PROFIBUS PA
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Additional Products and Services

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
TRA-PB-TECH	Training "PROFIBUS Technology", 2 days
TRA-PB-TS	Training "PROFIBUS Troubleshooting", 3 days

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