

PB Diagnostic Plug

PROFIBUS mini diagnostic tool for permanent monitoring

□ Description

The PB Diagnostic Plug can be connected to any PROFIBUS node continuously monitoring the complete running data traffic for typical communication errors.

Arising errors are directly indicated by integrated status LEDs and can be reported through the potential-free alarm contact to superordinate control systems.

Thus it is possible to reduce failures and to avoid unexpected plant shutdowns. Service and maintenance costs can be planned more proactively.

The baud rate is manually set via the integrated rotary switch and supports the complete range from 9600 Bit/s to 12000 Kbit/s. Automatic decoding of the baud rate is also possible.

An external power supply is not necessary because PB Diagnostic Plug is directly powered by the connected PROFIBUS node. The required power consumption is only about 40 mW, less than the PROFIBUS maximum default value of 50 mW.

PB Diagnostic Plug analyses the complete data traffic and triggers typical PROFIBUS-specific errors and messages, such as:

- Faulty telegrams
- Retransmissions
- Device-specific diagnostic messages

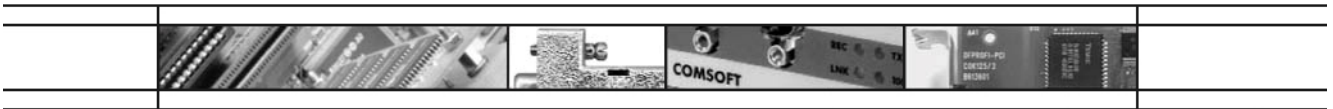
Red and green LEDs indicate its status or arising errors.

- Permanent green:
Power consumption ok, no data traffic
- Green – flashing at shorter intervals:
Power consumption ok, active data traffic
- Permanent red:
Detection of faulty telegrams
- Red – flashing at shorter intervals:
Detection of retransmissions
- Red – flashing at longer intervals:
Detection of diagnostic messages

If PROFIBUS errors are detected, the potential-free alarm contact triggers a one-second impulse. Arising error messages can be quantified on a connected, superordinate control system by counting the generated impulses. It is possible to reset error messages at any time by pressing the integrated button.



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Technical Data

Indicators	Green LED, red LED
Control Elements	Rotary switch for baud rate setting Reset button
Interfaces	PROFIBUS RS485 (DB9) Potential-free alarm contact 24 Volt/100 mA
Baud Rates	9600 Bit/s – 12000 Kbit/s
Power Requirements	Approx. 8 mA at 5 Volt DC
Temperature Range	0 °C – +50 °C
Trouble-Shooting	Faulty telegrams Retransmissions Device-specific diagnostic messages

Order Numbers

Order No.	Item
1012463	PB Diagnostic Plug Includes PROFIBUS DP Diagnostic Plug with Quick guide