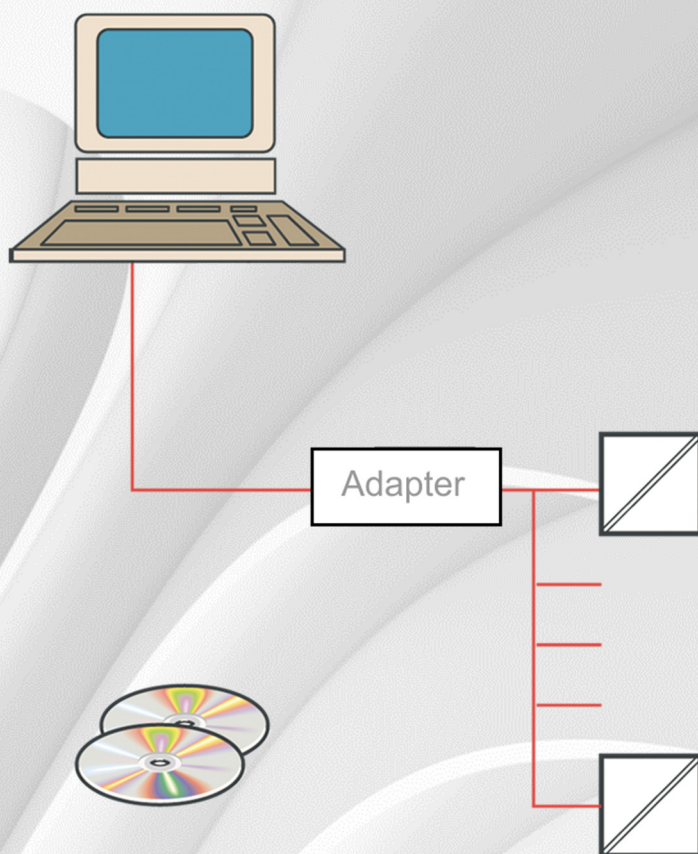


ABB MEASUREMENT & ANALYTICS | DATA SHEET

# PROFIBUS-Adapter



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# Measurement made easy

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## Profibus DP / PC Adapter

- USB

## NDA121-NO PROFIBUS DP / PC-USB adapter

### Adapter

Desktop PC's as well as notebooks can be flexible connected in the field to a PROFIBUS® network via the adapter NDA121-NO. Thereby a parallel operation of up to 16 adapter is possible. The adapter supports the Master functionality of the PROFIBUS® Standards DP (class 1 and 2), DP-V1 (class 2). The adapter is USB powered, thus not depending on external power connections.

Its high transmission rate of up to 12 Mbit/s is especially of interest for fast applications in the manufacturing process like drive set-up and diagnosis.

### Software

The delivery contents includes the universal PROFIBUS driver for Windows operating systems. The installed operating system is detected automatically by the driver DLL. Further more a Device Type Manager (DTM) compliant to the current FDT specification version 1.2.1 is included.

### Device Type Manager for PROFIBUS® networks (optional)

The software package PROFIBUS® FDT consists of the following component:

- CommunicationDTM **CommDTM** for NDA121-NO

### CommDTM

The Device Type Manager CommDTM provides access to the PROFIBUS® Master NDA121-NO. Within the FDT architecture, the CommunicationDTM enables DeviceDTMs to connect to their respective devices via PROFIBUS® DP/-V1.

The DTM is compliant to the current version 1.2.1 of the FDT standard. It is responsible for the management and configuration of the communication device. Based on the CommChannel provided by the CommDTM the DeviceDTMs can handle the engineering and commissioning task for a remote device from one central workplace.

The Communication DTM CommDTM contains all communication device specific functions. The configuration parameters of the communication device can be accessed through a set of property pages which are embedded into an ActiveX control. No additional proprietary configuration software is needed for the setting of the communication properties of the device.

The screenshot shows a dialog box titled "FDL Parameter". It contains several input fields and a "Default Value" button. The parameters and their values are as follows:

| Parameter       | Value   | Unit |
|-----------------|---------|------|
| Baud Rate       | 9,6 kBd |      |
| Station Address | 0       |      |
| MinTSDR         | 11      | tBit |
| MaxTSDR         | 60      | tBit |
| TQuiet          | 0       | tBit |
| HSA             | 126     |      |
| MaxRetry        | 1       |      |
| TSlot           | 100     | tBit |
| TTR             | 100000  | tBit |
| TSet            | 1       | tBit |
| G               | 10      |      |

Figure 1: FDL parameter (example)



... NDA121-NO PROFIBUS DP / PC-USB adapter

Specifications

|                                                                                    |                                                                                                                  |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Adapter type                                                                       | NDA121-NO                                                                                                        |
|  |                                                                                                                  |
| PC Interface                                                                       | USB                                                                                                              |
| Area of application                                                                | mobile / stationary                                                                                              |
| Controller                                                                         | MC 68302, ASPC2                                                                                                  |
| RAM                                                                                | 16 kByte dual ported                                                                                             |
| Connection                                                                         | 1 RS 485                                                                                                         |
| Operation                                                                          | up to 16 connections in parallel                                                                                 |
| Current consumption via USB port                                                   | approx. 300 mA                                                                                                   |
| Field bus protocol                                                                 | PROFIBUS DP (Class 1 + 2) and DP-V1 Master (Class 2), DP Slave, FMS Master                                       |
| Available software                                                                 | IsPro CommDTM (FDT 1.2.1), isPro Multiserver (OPC)                                                               |
| Transmission rate                                                                  | 9.6 kbit/sec to 12 Mbit/sec                                                                                      |
| Operating system                                                                   | Windows 7, 8.x & 10 (32-Bit / 64-Bit)                                                                            |
| Certification                                                                      | CE                                                                                                               |
| Scope of delivery                                                                  | Hardware, USB cable, driver, configuration and test software, CommDTM, Documentation in German and English on CD |

Note

Installation of the software / DTM

- The USB adapter may be connected to a PC only after the driver has been installed! Otherwise, the adapter could possibly not be detected correctly.
- After first use of the USB adapter with current drivers (64 Bit support) the USB no longer runs with older drivers.

## Ordering Information

| PROFIBUS DP / PC-adapter                                                                           |              | Catalog No. |
|----------------------------------------------------------------------------------------------------|--------------|-------------|
| NDA121-NO                                                                                          | (10390-1101) | 9890002     |
| PROFIBUS DP / PC USB-adapter                                                                       |              |             |
| to connect an ABB tool to one PROFIBUS line via PC / Notebook,                                     |              |             |
| max. transmission rate 12 Mbit/s,                                                                  |              |             |
| incl. standard driver and CommDTM (FDT 1.2.1), for Windows 7, 8.x & 10 (32-bit / 64-bit versions). |              |             |
| USB cable and manual (*.pdf).                                                                      |              |             |

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## Trademarks

PROFIBUS and PROFIBUS DP are registered trademarks of PROFIBUS & PROFINET International (PI)

Windows is a registered trademark of Microsoft Corporation.

Sales



Service







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