Anybus®

Master Simulators

The Master Simulator is an easy to use tool for setup and testing of Profibus DP/DPV1, DeviceNet and CANopen Slave/Adapters. Master Simulators are also a popular economic alternative to a PLC or a PC-board.

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The Master Simulators are easy to use tools to setup and test your Profibus, DeviceNet and CANopen Slave/Adapters. The user-friendly application interface makes it easy to configure, initialize and communicate with the Slave/Adapter devices. Its ideal for test wiring of Inputs and Ouputs and with Reading and Writing of analog values. It requires no external power supply and is ideal for use with laptops and Notebooks and makes a good economic alternative to a PLC or PC-card.

For example, you can use the tool to test the wiring of the inputs and outputs of an I/O block or even read and write analog values. The Master Simulator is useful during setup of the Slave/Adapters in the network as well as during final inspection tests at the device manufacturer.

Not only for these purposes, the Master Simulator is an economic alternative to a PLC or a PC-board. The converter does not need any external power supply. It takes its power directly from the Profibus/DeviceNet/CANopen interface of the connected device. For this reason, the Master Simulator is excellent for mobile use with Laptops/Notebooks.

CANopen

The Master Simulator can be used with nearly all CANopen slaves from different manufacturers.

The network scan function automatically detects and identifies all operational slaves in a CANopen network; even if the normally required EDS file is not available. Any CANopen slave can be set into operation. User friendly dialogs are used to exchange cyclic I/O or explicit message parameter data.

The Master Simulator consists of a Windows based Software and a CANopen USB-interface circuitry (Dongle). The Dongle is plugged into the USB port of the PC and provides on the other side a 9-pin D-Sub connector as the CANopen Interface. The Dongle is powered from the USB port.
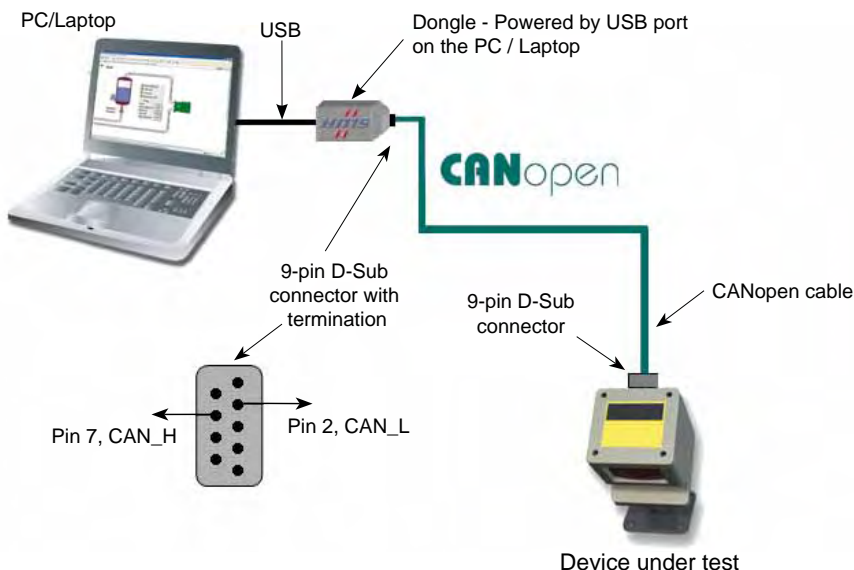
Key Features

- Easy to use test and diagnostic tool for CANopen slaves
- No programming required
- Read / Write of cyclic I/O data and Explicit messaging data (SDO & PDO's)
- Auto CANopen address search
- Auto detection of I/O data size
- Works even without EDS-File
- Supports all standard CANopen baudrates
- Ideal for mobile usage with laptops
- Connection via USB port

Specifications

- **Power Supply:** Powered by the PC/laptop USB port
- **Operating Temperature:** 0-55°C
- **Baudrate:** CANopen 5-1000 kbit/s
- **Cable Length:** max. 2m
- **CE certified and RoHS compliant**

Ordering Information

- **Order Code: 019920**

  Delivery includes:
  CANopen Master Simulator software CD, CANopen (Dongle)

Operating Requirements

- PC operating Win 9X/2K/ME/XP

PC/Laptop

USB

Dongle - Powered by USB port on the PC / Laptop

CANopen

9-pin D-Sub connector with termination

9-pin D-Sub connector

CANopen cable

Pin 7, CAN_H   Pin 2, CAN_L

Device under test

The Master Simulator is useful during setup of the Slaves in the Profibus network as well as during final inspection tests at the device manufacturer. For these purposes, the Master Simulator is an economic alternative to an expensive PLC or a Profibus PC-interface card. Using the Master Simulator off loads users from the time consuming writing of specific test programs. However, the Master Simulator is a test tool only. It shall not be recommended to be used in control applications.

Two versions are available, one basic version for Profibus-DP only, and a full version for both Profibus-DP and DPV1.

The automatic Slave identification functionality permits communication to almost any Profibus slave device even if the normally required GSD file is not available. So it is possible, to initialize a slave device step by step and finally read or write the I/O data. Especially during setup and maintenance, where usually the GSD files of several manufacturers are not available, the Master Simulator has proven its concept and pays off shortly.

The Master Simulator also permits the address assignment of the Profibus slaves via the bus and to display and analyze diagnostic messages of Profibus slaves on the screen. The DPV1 version also permits read/write access to acyclic parameter data.

The connection to the Profibus interface of the slave device is made via an RS-232 to Profibus converter, which is built-in into a small D-SUB connector housing. This converter is connected to the PC´s COM-Port via a serial connection cable, which is also included in the scope of delivery. As an option a USB to Serial Converter can purchased separately. This connects the Profibus Master Simulator directly to the USB interface of a PC or laptop.
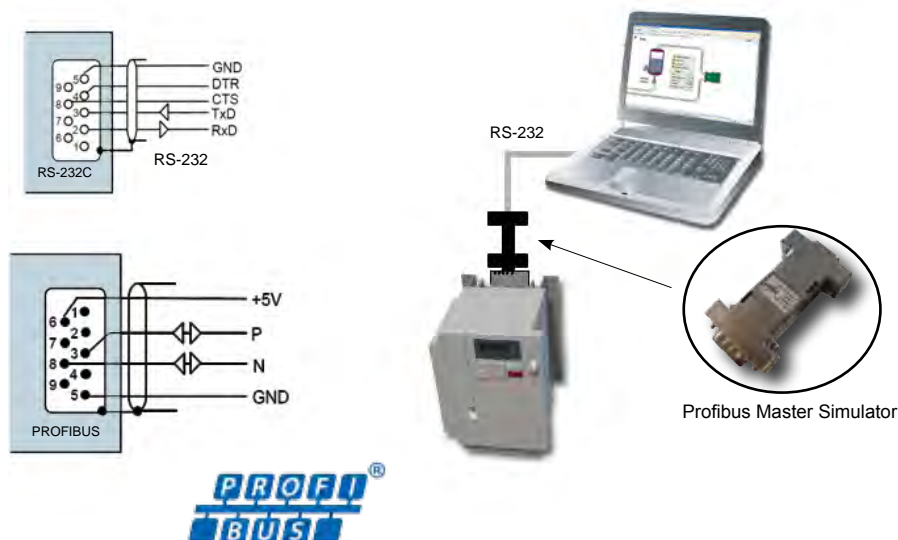
Key Features

- Easy to use test and diagnostic tool for Profibus DP/DPV1 slaves
- No programming required
- Read/Write of cyclic I/O data
- Read/Write of acyclic I/O data(DPV1)
- Auto Profibus slave address search
- Auto detection of I/O data size
- Works even without GSD-File
- Ideal for mobile usage with laptops
- Connection via RS-232 / D-sub

Specifications

- **Size:** 62 mm x 34 mm x 15 mm
  2.44" x 1.34" x 0.59"
- **Connectors:**
  RS-232 side: DSub-9 female
  Profibus side: DSub-9 male
- **Supply:** 5 Volt / 60 mA taken from the Profibus interface of the device
- **Operating Temperature:** 0-55 ˚C
- **Baudrate:** 19.2 kbit/s
- **Cable Length:** max. 2 m
- **CE certified; RoHS compliance**

Ordering Information

017504
Master Simulator Profibus-DP

017505
Master Simulator Profibus-DP/DPV1

Delivery includes:
Profibus Master Simulator software CD, connection cable to connect the converter to a PC COM-Port and an RS-232/ Profibus converter.

019570
USB – Serial Converter
Connects the Profibus-DP or Profibus-DPV1 Master Simulator to the USB interface of an PC or Laptop

Operating Requirements

- PC operating Win 9X/2K/ME/XP

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The Master Simulator is a simple software tool which permits many test functions for nearly all DeviceNet adapters from different manufacturers. The network scan function automatically detects and identifies all operational slaves in a DeviceNet network; even if the normally required EDS file is not available. Any DeviceNet adapter can be set into operation and afterwards clear and user friendly dialog boxes are used to exchange cyclic I/O data or acyclic explicit messages between the DeviceNet adapter and the Simulator.

The Master Simulator consist of a Windows based Software tool and a DeviceNet interface circuitry (Dongle). The Dongle is plugged into the USB port of the PC and provides on the other side a 9-pin D-Sub connector as the DeviceNet Interface. The Dongle is powered from USB port.

To connect a DeviceNet Adapter, a DeviceNet cable together with connectors are required. This "DeviceNet Cable-Kit" can be purchased separately from HMS, if you do not already have this accessories. In addition to this, a separate 24V power supply is required.
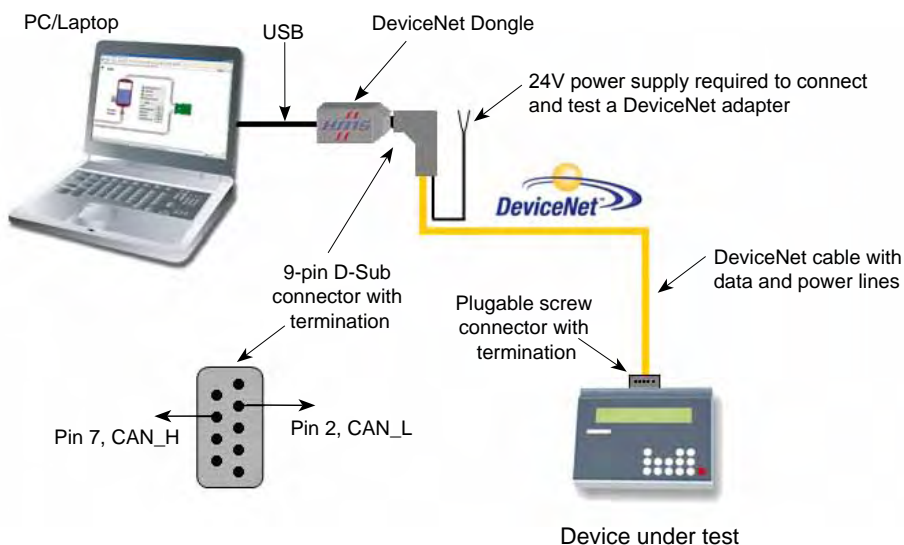
Key Features

- Easy to use test and diagnostic tool for DeviceNet adapters
- No programming required
- Read / Write of cyclic I/O data and Explicit messaging data
- Auto DeviceNet address search
- Auto detection of I/O data size
- Works even without EDS-File
- Ideal for mobile usage with laptops
- Connection via USB port

Specifications

- **Power Supply:** DeviceNet Dongle powered by the PC/laptop USB port.
- **Operating Temperature:** 0-55°C
- **Baudrate:** DeviceNet 125-500 kbit/s
- **Cable Length:** max. 2m
- **CE certified and RoHS compliant**

Ordering Information

- **Order Code: 018410 (DeviceNet)**

  Delivery includes:
  DeviceNet Master Simulator software CD, DeviceNet (Dongle)

  Order Number: 017509 DeviceNet Cable-Kit

  Consists of 2 m thin DeviceNet cable with a 9-pin D-Sub and one 5-pin pluggable screw connector, power supply cable, bus termination resistor.

Operating Requirements

- PC operating Win 9X/2K/ME/XP

PC/Laptop

USB

DeviceNet Dongle

24V power supply required to connect and test a DeviceNet adapter

9-pin D-Sub connector with termination

Plugable screw connector with termination

DeviceNet cable with data and power lines

Pin 7, CAN_H

Pin 2, CAN_L

Device under test

About HMS

HMS Industrial Networks is the leading independent supplier of network technology for automation devices. HMS develops and manufactures solutions for interfacing automation devices to industrial networks.

Development and manufacturing takes place at the head office in Halmstad, Sweden. Local sales, support and training is provided by the branch offices in Chicago, Beijing, Karlsruhe, Milan, Mulhouse and Tokyo and by a global distribution network spanning 40 countries. HMS employs over 160 people and reports revenues of €23 million during 2009. HMS is a public listed company on the NASDAQ OMX Nordic exchange in Stockholm, ISIN-code: SE0002136242

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