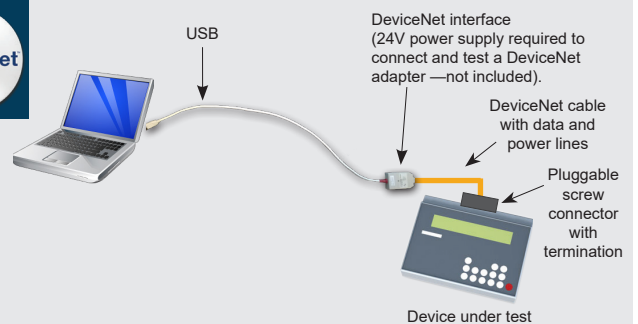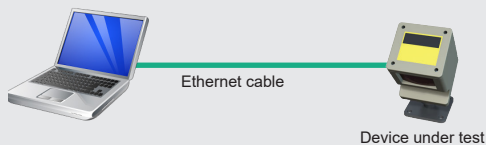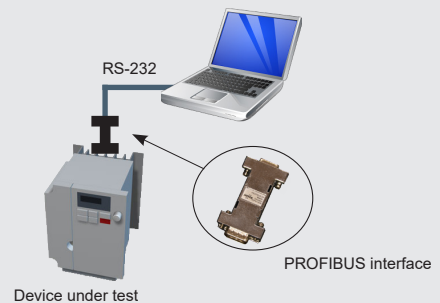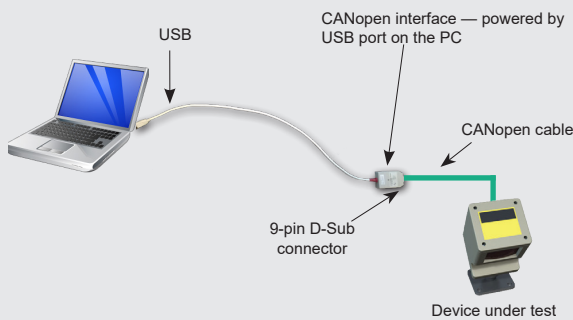# Anybus®
BY HMS NETWORKS

Master simulators

By using master simulators from HMS, you can set up and test slaves/adapters on PROFIBUS, PROFINET, CANopen, EtherNet/IP and DeviceNet without having a PLC in place.

Simply connect to your computer and you have a very cost-efficient alternative to a PLC or PC-card.

CANopen

USB

CANopen interface — powered by USB port on the PC

CANopen cable

9-pin D-Sub connector

Device under test

PROFIBUS

RS-232

PROFIBUS interface

Device under test

PROFINET / EtherNet/IP

Ethernet cable

Device under test

DeviceNet

USB

DeviceNet interface (24V power supply required to connect and test a DeviceNet adapter —not included).

DeviceNet cable with data and power lines

Pluggable screw connector with termination

Device under test

Available for:

CANopen

PROFIBUS

PROFINET

EtherNet/IP

DeviceNet

HMS provides a full 3 year product guarantee

Test your device without an expensive PLC

Master simulators are ideal for test-wiring of inputs and ouputs and reading and writing analog values. They are useful during setup of slave/adapters in a network as well as during final inspection tests at the device manufacturer.

Industrial Ethernet versions are software-only, while fieldbus versions also include a converter interface which is used to connect the fieldbus cable to the PC.

No GSD/EDS files needed

During setup and maintenance, there may not be GSD/EDS available making master simulators especially useful for this scenario.
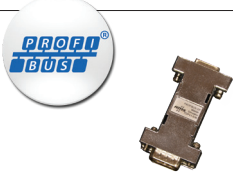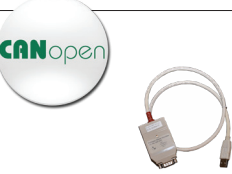
Key features

- Easy-to-use test and diagnostics tool.

- No programming required.

- Auto-detects slaves/adapters (even when GSD/EDS file is not available).

- Auto detection of I/O data size. (not for EtherNet/IP)

TECHNICAL SPECIFICATIONS	PROFIBUS	PROFINET	DeviceNet	CANopen	EtherNet/IP
Description	Consists of a Windows-based software and an RS-232 to PROFIBUS converter which plugs into the PROFIBUS device. The converter is then connected to the PC´s COM-Port via a serial connection cable. Two versions are available, one basic version for PROFIBUS-DP only, and a full version for both PROFIBUS-DP and DPV1.	Software only. An Ethernet cable is used to connect directly between the PC and the device under test. Two versions are available, one basic version for PROFINET and a Plus version which supports acyclic data, PROFIsafe and logging of I/O data.	Consists of a Windows-based software tool and a DeviceNet interface. The interface is plugged into the USB port of the PC and on the other side, there is a 9-pin D-Sub connector connecting to the DeviceNet device. The interface is powered from USB port.	Consists of a Windows-based software and a CANopen USB-converter interface. The interface is plugged into the USB port of the PC. On the other side, there is a 9-pin D-Sub connector connecting CANopen device. The interface is powered from the USB port.	Software only. An Ethernet cable is used to connect directly between the PC and the device under test. EIPScan is a fully-featured, PC-based EtherNet/IP Scanner Simulation Tool. (A dedicated network interface card is recommended. Needs to be configured by the user for the EtherNet/IP network (IP-Address, Subnet Mask etc.). Only IPv4 is applicable. Multiple network interfaces are supported simultaneously.
PC connection via	COM port (RS232)	Ethernet	USB	USB	Ethernet
Automatic scan	Yes. (Detects and identifies all operational slaves in a PROFIBUS network; even if the normally required GSD file is not available.)	-	Yes. (Detects and identifies all operational slaves in a DeviceNet network; even if the normally required EDS file	Yes. (Detects and identifies all operational slaves in a CANopen network; even if the normally required EDS file is not available.)	Yes (Detects and identifies all EtherNet/IP devices in the network and shows them by their Identity Object attributes even if the normally required EDS-File is not available.)
PC requirements	Win 9X/2K/ME/XP/7	Win 9X/2K/ME/XP/Vista/7/8	Win 9X/2K/ME/XP/7	Win 9X/2K/ME/XP/7	Win XP/Vista/7 Microsoft .NET Framework 4 Client Profile installation required
Accessories	USB – Serial Converter Order no: 019570 Connects the PROFIBUS-DP or PROFIBUS-DPV1 Master Simulator to the USB interface of a PC.	-	DeviceNet Cable-Kit Order no: 017509 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.	-	-
Network-specific features	• 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 without GSD-File	• Read/Write of cyclic I/O data • Read/Write of acyclic I/O data (plus version) • PROFIsafe (plus version) • Logging of I/O data (plus version)	• Read / Write of cyclic I/O data and explicit messaging data • Auto DeviceNet address search • Auto detection of I/O data size • Works without EDS-File	• Read / Write of cyclic I/O data and explicit messaging data (SDO & PDOs) • Auto CANopen address search • Auto detection of I/O data size • Works without EDS-File • Supports all standard CANopen baudrates	• Read/Write of cyclic I/O data (Class 1 Connections) • Read/Write of explicit messaging data (Unconnected Messages and Class 3 Connections) • CIP File Retrival (File Object uploading and downloading) • Works without EDS-File

CONVERTER INTERFACE

Size	62 mm x 34 mm x 15 mm	-	67 mm x 41 mm x 20 mm	67 mm x 41 mm x 20 mm	-
Power supply	5 Volt / 60 mA taken from the PROFIBUS interface of the device	-	DeviceNet interface powered by the PC/laptop	Powered by the PC/laptop USB port	-
Operating temperature	0-55˚C	-	0-55˚C	0-55˚C	-
Max cable lenght	2 meters	-	2 meters	2 meters	-
Baudrate	19.2 kbit/s	-	125-500 kbit/s	5-1000 kbit/s	-
Certifications	CE certified and RoHS compliant	-	CE certified and RoHS compliant	CE certified and RoHS compliant	-

ORDERING INFORMATION

Order code	017504 (Profibus-DP) 017505 (Profibus-DP/DPV1)	024710 (Basic) 024720 (Plus)	018410	019920	1.24.0034.03100
Delivery includes	PROFIBUS Master Simulator software CD, connection cable to connect the converter to a PC COM-Port and an RS-232/PROFIBUS converter.	Software download. License document provided by HMS.	DeviceNet Master Simulator software CD, DeviceNet (interface)	CANopen Master Simulator software CD, CANopen (interface)	EIPScan software, manual and license information

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