# Product Overview

# Embedded AnyBus®-M Master

## High Performance Master Communication Interfaces



PROFI®
PROCESS FIELD BUS
BUS
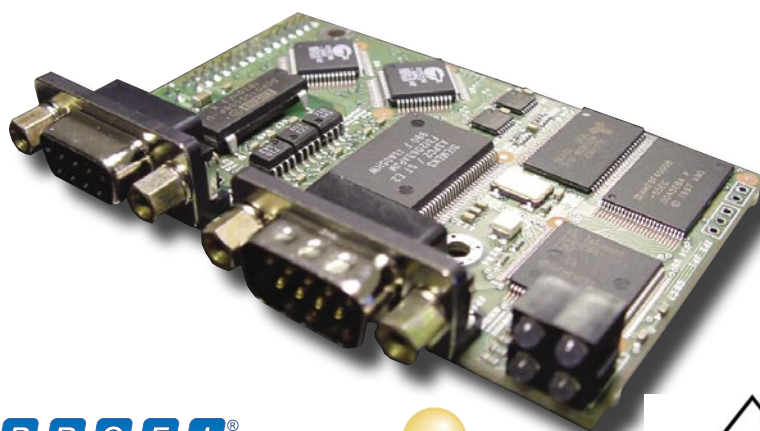
DeviceNet™

ASi INTERFACE

PROFIBUS · DEVICENET · AS-INTERFACE ·

**Designed for Industrial Applications**

# Embedded interchangeable

## Take a closer look at the world's best selling embedded fieldbus interface range.!

The AnyBus-M Master modules are designed for integration into industrial automation devices that need to communicate with industrial field devices. AnyBus-M modules have their own high performance microprocessor which handles the entire communication protocol independently of the application running in the automation device. The network configuration can either be defined and loaded into the AnyBus-M module with our NetTool configuration software or alternatively, the configuration can be loaded from the Software of the Automation device into the AnyBus-M module. Typical applications are HMI's, Controllers such as PLCs, CNCs, or Robots as well as intelligent visualization devices and operator panels.
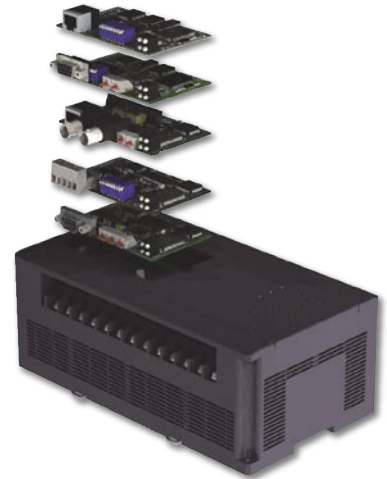
## Key Features

» Credit card sized

» Standardized application interface in mechanics, hardware and software.

» Interchangeability between all AnyBus-S and AnyBus-M modules.

» Instant connectivity to all major industrial networks in one development cycle.

» 2kByte (4kByte Profibus) Dual Port Ram

» Max 1536 bytes of Input data & 1536 bytes of Output data. 512 bytes for DeviceNet & AS-Interface

» On-board Microprocessor

» Contains all necessary network protocol features on-board.

» Can be designed into an application within 1-3 months

» Galvanically isolated fieldbus interface

» AnyBus NetTool configuration software for Profibus & DeviceNet network setup

» Tested and verified for fieldbus conformance

## Tech Specification

» **Size:** 86 x 54 x 15 mm ( L x W x H )
2.13 x 3.38 x 0.59" ( L x W x H )

» **Power Supply:** +5V 300 - 450mA VDC

» **Temperature:** Operating 0° to + 70°C

» **EMC Compliance:** 89/336/EEC
**Emission:** EN 50081-2: 1993
**Immunity:** EN 50082-2:1995
**UL&cUL Compliance:** E209168
**CE-Mark:** CE marked ( all versions )

## Designed for industrial applications
## High performance and functionality

All AnyBus-M modules have the size of a credit card. The application interface is standardized in hardware, software and mechanics. This allows interchangeability between all other AnyBus-M and AnyBus-S modules.

The application interface of the AnyBus-M modules is based upon a Dual Port Ram (DPRAM). This guarantees high data throughput and short bus cycle times. Simple handshake procedures permit secure data transmission including transfer of large consistent data areas.

## New updated Profibus Master

HMS has released the next generation of embedded Profibus Master supporting Profibus DP & DPV1. The AnyBus-M Profibus Master has a powerful 4kbyte DPRAM that allows fast transfer of up to 1536 bytes of cyclic Input and 1536 bytes cyclic Output data. In addition, acyclic parameter data can be transferred with Class1 or Class 2 DPV1 services.

The Master supports Class 1 & Class 2 services. It supports connection of up to 125 slaves at baudrates up to 12 Mbit/s. The Profibus configuration is defined and transported into the AnyBus-M module either via the configuration software NetTool or via the application interface.
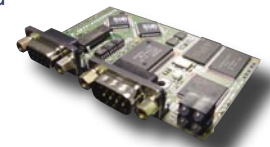
## DeviceNet Master/Scanner

The AnyBus-S DeviceNet Master module can act both as a Master/Scanner and/or Adapter/Slave. The entire DeviceNet protocol is implemented into the module. The module manages control of up to 63 DeviceNet slaves with up to 512 bytes of Input and 512 bytes of Output I/O data. Full DeviceNet configuration defined and loaded into the AnyBus-M module via the HMS configuration software NetTool or via Rockwell´s RSNetWorx. Alternatively the DeviceNet configuration can be loaded into the AnyBus-M module via the application interface.

## AS-Interface Master

The AnyBus-M AS-Interface Master module supports up to 62 slaves with a maximum of 248 digital input, 186 output signals and 124 analog values. All standard services are available including access to analog values and detailed diagnostics. The network interface is optically isolated and equipped with a 2 pin pluggable screw connector. The Master supports intelligent auto-configuration or manual configuration via a remotely connected terminal program.

# high performance Master interfaces

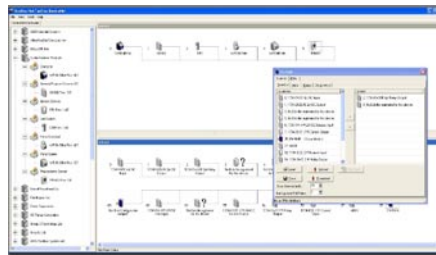## AnyBus NetTool-PB™ Master Configurator
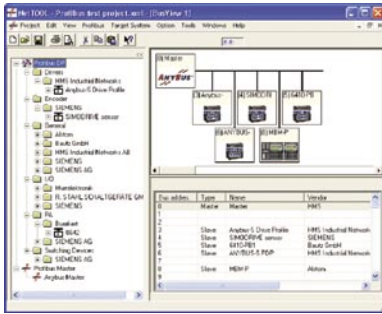


The AnyBus-M Profbus Master has been developed with its own configuration tool "AnyBus NetTool-PB".

This windows based drag and drop configurator provides optimal configuration features of your Profibus network without any compromises. In addition, the tool provides online diagnostics with monitor/modify of process I/O data.

This complete stand-alone configuration tool can also be customized or integrated into a 3rd party software package as a Windows OCX component.

## AnyBus NetTool-DN™ Master Configurator



The AnyBus NetTool-DN is a windows based drag and drop configurator which allows optimal configuration of your DeviceNet network without any compromises.

Setup functions include full scanner and adapter on/off line configuration, online diagnostics, auto EDS file generation and an online parameter editor.

The configuration is loaded from the PC into the AnyBus-M module via a RS-232 cable and the HMS DeviceNet configuration adapter.

## AS-Interface Master Auto-Configuration
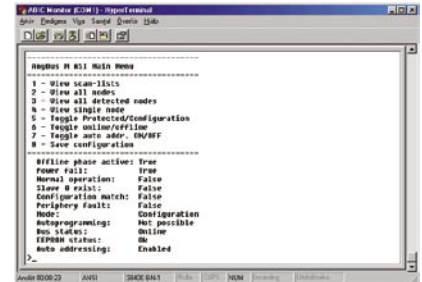


The AnyBus-M AS-Interface Master has an intelligent auto-configuration feature.

It is also possible to configure manually via a simple text based terminal interface on a PC connected via the RS-232 interface of the AS-Interface Master module.
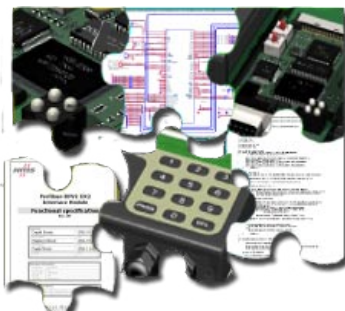
## Customizing your AnyBus Master

For nearly 15 years HMS has been providing some of the world´s largest OEM manufacturers of Factory, Building & Process Automation products with custom AnyBus solutions. A custom solution could be as simple as a carrier board for the AnyBus interface, or a customized adaption of an AnyBus module. Even with a custom AnyBus solution, multiple fieldbus connectivity is still guarenteed if required.

Almost everything on the AnyBus interface can be customized, such as software, hardware and mechanics, to meet a unique customer specification.
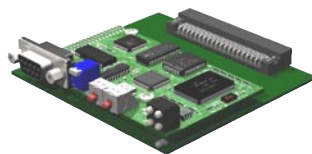
**Custom AnyBus Carrier Boards**

**Custom AnyBus Interfaces to specially meet your products requirements**

Custom solutions are not always the best way to acheive fieldbus connectivity. If your looking for an embedded solution and your product is still in the in-design and specification phase. Please call HMS so that our product experts can discuss the optimal solution for your application together with you.

# AnyBus-M Master family

## AnyBus technology - Proven in over 100,000 industrial applications

### Profibus DPV1 Master AB5030

➢ Complete Profibus DP/DPV1 Master according to IEC 61158

➢ Built on Siemens ASIC ASPC2 Step E with Infineon C165 Microprocessor

➢ Up to 125 slaves can be connected

➢ Up to 1536 bytes input & 1536 bytes Output data

➢ High throughput up to 12 Mbit/s

➢ RS-485 optically isolated Profibus interface with on-board DC/DC converter.

➢ Configuration via AnyBus NetTool-PB Windows based configuration software or via the application interface

### DeviceNet Scanner AB5021

➢ Complete DeviceNet 2.0 scanner implementation according to ODVA lastest standards

➢ Group 2 Client/Server / UCMM support

➢ Baud rate 125-500 kbit/s

➢ Optically isolated DeviceNet interface

➢ Max 512 bytes of input & 512 bytes output data.

➢ Manages up to 63 DeviceNet slaves

➢ Configuration via AnyBus NetTool-DN or RSNetworx. Configuration can be loaded into the module via DeviceNet or the application interface.

### AS-Interface Master AB5023

➢ Manages control of up to 62 AS-I slaves.

➢ 248 digital inputs and 186 digital outputs.

➢ 124 (16 bit) analog values.

➢ Optically isolated interface.

➢ Supports extended Master profiles

➢ Backwards compatible with V2.0

➢ Intelligent auto configuration support

➢ Alternative configuration via standard Windows Hyper terminal program on your PC

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