



## M - Master

High performance interchangeable master interfaces supporting Profibus, DeviceNet, EtherNet/IP and AS-Interface

- ▶ Profibus
- ▶ DeviceNet
- ▶ EtherNet/IP
- ▶ AS-Interface

## Powerful credit card-sized master/scanner interfaces supporting Profibus, DeviceNet, EtherNet/IP and AS-Interface. Take a closer look at the embedded Anybus-M master family.

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 be defined and loaded into the Anybus-M module with the Anybus NetTool configuration software. Alternatively, the configuration can be loaded from the software of the automation device into the Anybus-M module. Typical applications are HMI's, PLCs, CNCs, or robot controllers as well as intelligent visualization devices.

### Designed for industrial applications with high performance and functionality

All Anybus-M modules are the size of a credit card. The application interface is standardized in hardware, software and mechanics, allowing interchangeability between other Anybus-M 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.

#### Profibus-DPV1 master

The Embedded Profibus master module supports both Profibus-DP and -DPV1. This master module has a powerful 4kbyte Dual Port RAM that allows fast transfer of up to 1536 byte of cyclic Input and 1536 byte cyclic Output data. In addition, acyclic parameter data can be transferred due to the support of class 1 and class 2 DPV1 services. It is possible to connect up to 125 slaves at baud rates up to 12 Mbit/s. The Profibus configuration is defined and loaded into the master module either via the configuration software Anybus NetTool or via the application interface.

#### DeviceNet scanner

The Embedded DeviceNet scanner module can act both as a master/scanner and/or

adapter/slave. The entire DeviceNet protocol is implemented into the module and complies to DML version 3.011. Functionality includes latest features such as "Quick Connect" and "ADR" Auto Device Recovery. The module can control up to 62 DeviceNet adapters with up to 1536 byte of Input and 1536 byte of Output data. The DeviceNet configuration is defined and loaded into the Anybus-M module via the HMS configuration software Anybus NetTool or via Rockwell Automation's RSNetWorx.



### Contains all analog and digital components such as bus drivers, DC/DC converter & optocouplers

#### AS-Interface master

The embedded AS-Interface master module conforms with the latest AS-i master technology (Version 3 with M4 functionality). It connects up to 62 slaves with a maximum of 2108 Input and 2048 Output signals.

All standard services are available, including access to analog values and detailed diagnostics. The network interface is optically isolated and equipped with two 2-pin pluggable screw connectors.

The master supports intelligent auto-configuration or manual configuration via a remotely connected terminal program.

#### EtherNet/IP scanner

The embedded Ethernet module allows easy implementation of 10/100Mbit/s EtherNet/IP scanner interface into industrial devices. The module supports up to 64 adapters (slaves). Configuration of the EtherNet/IP network is done via an external configuration tool (i.e. RSNetWorx).

The module also supports IT functionality such as a web server for creating dynamic web pages which include reading & writing of Dual Port RAM data, sending E-mail and FTP for downloading of user web pages.

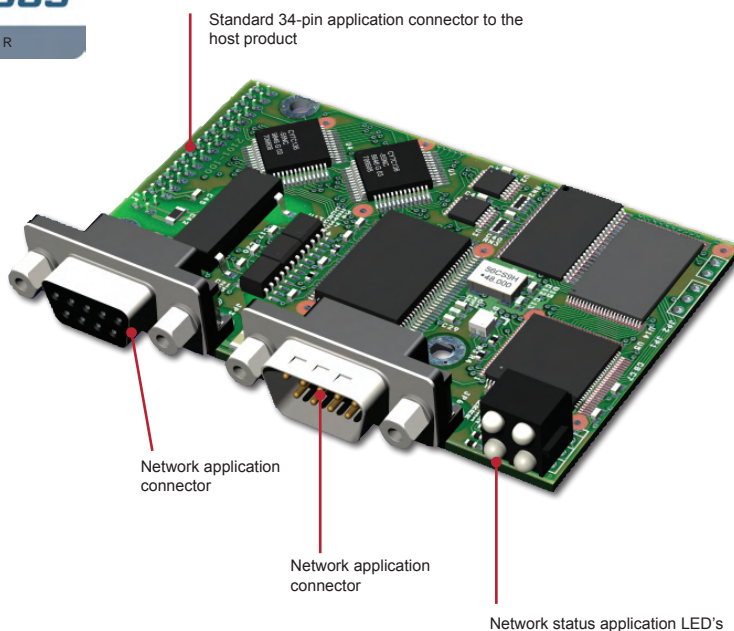
#### WHY USE ANYBUS-M MODULES?

- Connectivity to several different Industrial Networks with only one development
- Anybus-M modules are fully interchangeable with each other
- Same hardware and software interface from the view of the host device
- Up to 70 % savings in development costs compared with own implementation
- Continuous technology maintenance by HMS
- Short time-to-market, typically only 1-3 months for several networks
- Proven Anybus technology - over 950,000 Anybus modules sold (Q408)

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**Available for:**  
 Profibus-DPV1  
 DeviceNet  
 EtherNet/IP  
 AS-Interface

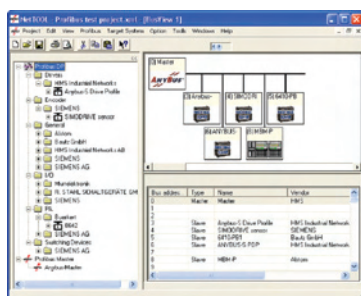


### KEY FEATURES

- Credit card-sized
- Standardized application interface in mechanics, hardware and software
- Interchangeability between the Anybus-S and Anybus-M modules
- Instant connectivity to all major industrial networks in one in-design
- 2 kbyte (4 kbyte Profibus) Dual Port RAM
- On-board microprocessor
- All necessary network protocol features on-board
- Galvanically isolated network interface
- Anybus NetTool configuration software for Profibus and DeviceNet network setup
- IT functions such as web server, E-mail, FTP included with EtherNet/IP scanner
- Tested and verified for fieldbus conformance

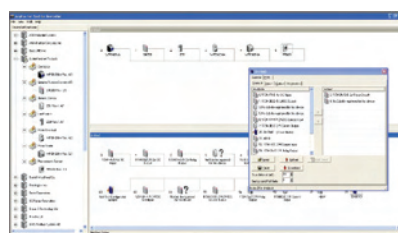
## Master Configuration - Anybus NetTool

**Anybus NetTool-PB™**  
 master configurator



The Anybus-M Profibus master has been developed with its own configuration tool “Anybus NetTool-PB”. This Windows based drag-and-drop configurator provides optimal configuration of your Profibus network without any compromise. 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 allowing optimal configuration of your DeviceNet network without any compromise. Setup functions include full scanner and adapter on/off line configuration, online diagnostics, auto EDS-file generation and an online parameter editor. The Anybus-M DeviceNet master can also be configured with Rockwell Automation's RSNetWorx.

### TECHNICAL 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:  
 +5 V 300 - 450 mA VDC
- Operating temperature:  
 0 °C to + 70 °C  
 32 °F to + 158 °F
- EMC Compliance:  
 89/336/EEC  
 Emission: EN 50081-2: 1993  
 Immunity: EN 50082-2: 1995  
 UL and cUL Compliance: E209168  
 CE-Mark: CE marked (all versions )
- RoHS compliance



# Fieldbus specific supported features - Anybus-M master

 <p><b>Profibus-DPV1 master AB5030</b></p> <ul style="list-style-type: none"> <li>• Complete Profibus DP/DPV1 master functionality according to IEC 61158</li> <li>• Based on Siemens Profibus master technology</li> <li>• 4 kbyte Dual Port RAM interface</li> <li>• Manages up to 125 slaves</li> <li>• Up to 1536 byte of cyclic Input and 1536 byte of cyclic Output data</li> <li>• Acyclic parameter data transfer via class 1 or class 2 DPV1 services</li> <li>• Hot stand-by feature with controller redundancy and automatic switchover from M1 to M2 if M1 fails</li> <li>• Configuration via HMS NetTool for Profibus</li> <li>• comDTM available to support FDT technology</li> </ul>	 <p><b>DeviceNet Scanner AB5021</b></p> <ul style="list-style-type: none"> <li>• Complete DeviceNet scanner</li> <li>• Group 2 client/server with UCMM support</li> <li>• DeviceNet baud rate 125-500 kbit/s</li> <li>• Optically isolated DeviceNet interface</li> <li>• Max 1536 byte of Input &amp; 1536 byte Output data</li> <li>• Manages up to 63 DeviceNet slaves</li> <li>• Support for "Quick Connect"</li> <li>• Support for "ADR" Automatic Device Recovery</li> <li>• Configuration via Anybus NetTool-DN or RSNetWorx. Configuration can be loaded into the module via DeviceNet or the application interface</li> <li>• Optional serial USB configuration port available</li> <li>• DML Ver 3.011</li> </ul>	 <p><b>AS-Interface master AB5021</b></p> <ul style="list-style-type: none"> <li>• Complete AS-Interface master (M4 Ver.3 Rev.1)</li> <li>• Controls up to 62 AS-Interface slaves</li> <li>• Max 2108 inputs and 2048 outputs</li> <li>• Support for analog value processing</li> <li>• Easy to use, text based configuration interface via on board RS-232 port</li> <li>• Automatic slave address programming</li> <li>• Complete access to network configuration via the application interface</li> <li>• Analog slave profiles</li> <li>• Backwards compatible with previous versions</li> <li>• Alternative configuration via the standard Windows Hyper terminal program on your PC</li> <li>• Duplicate slave address detection</li> </ul>
 <p><b>EtherNet/IP Scanner AB5057</b></p> <ul style="list-style-type: none"> <li>• Complete EtherNet/IP master/scanner interface</li> <li>• Dual Port RAM (DPRAM) parallel interface</li> <li>• Manages up to 64 adapters</li> <li>• Max 512 byte of Input &amp; 512 byte of Output data</li> <li>• Ethernet settings configurable through a built-in web server or with on-board DIP switches - DHCP</li> <li>• Transformer isolated Ethernet interface</li> <li>• Dynamic webserver with SSI script support</li> <li>• User downloadable web pages through FTP server</li> <li>• E-mail client functionality</li> <li>• Configuration via RSNetWorx</li> </ul>	 <p><b>Anybus NetTool Profibus NetTool-PB</b></p> <ul style="list-style-type: none"> <li>• Windows based configuration software</li> <li>• Easy to use drag and drop interface similar to Siemens Step 7 configuration software</li> <li>• Supports online diagnostics monitor/modify process I/O data</li> <li>• GSD library with interpreter</li> <li>• Supports: Set slave address</li> </ul>	 <p><b>Anybus NetTool DeviceNet NetTool-DN</b></p> <ul style="list-style-type: none"> <li>• Windows based configuration software</li> <li>• Easy to use drag and drop Interface</li> <li>• Multiple Networks simultaneously</li> <li>• Click and configure</li> <li>• On-line and Off-line configuration</li> <li>• EDS library with interpreter</li> </ul>
<p>Customized versions for specific requirements possible - Contact your nearest HMS office</p>		



## 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 30 countries. HMS employs over 150 people and is reporting sales of over €30 million. HMS is a public listed company on the NASDAQ OMX Nordic exchange in Stockholm, ISIN-code: SE0002136242

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