**Anybus®**
BY HMS NETWORKS

# Anybus gateway range

## Meet the new family members

HMS Networks has expanded its second generation Anybus® Communicator™ range of high-performance gateways, enabling more data to be transferred faster within industrial applications. Thirteen new versions that bridge EtherCAT, EtherNet/IP, Modbus TCP, PROFIBUS, and PROFINET networks make it simple to connect control systems, remove islands of automation, and maximize opportunities to increase operational performance.

The award-winning Anybus NP40 industrial network processor powers the gateways, ensuring that the Communicators will match demanding requirements in terms of performance, reliability, and security.

The new hardware and software enable the gateways to transfer data instantly, up to 10 times faster than the current gateways. Users can also benefit from significantly increased data exchange support as the gateway transfers up to 1 500 bytes to and from the connected PLC.

# High performance

Instant data transfer enables you to take full advantage of high-speed industrial networks. The hardware accelerated endian conversion (byte swap) saves processing time on the PLC. Transfer up to 1500 bytes in each direction.

PERFORMANCE

# Cybersecurity

Designed to keep you safe from cyberattacks. Secure boot protects you against malicious software and a security switch adds physical protection to prevent unauthorized configuration changes.

CYBERSECURITY

# Durability

Built using carefully selected industrial components and verified against industry standards, the Gateway can handle harsh industrial environments. Proven network conformance thanks to the market-leading NP40 network processor.

DURABILITY

# User-friendly

Fast installation and configuration are guaranteed thanks to an intuitive GUI, easy-to-understand documentation, and effective housing design. The GUI makes it simple to analyze live data, export log files, and generate support packages.

USER-FRIENDLY

# Network to Network Communicators

## Anybus Communicator - PROFINET IO to PROFIBUS DP device

The Anybus Communicator PROFINET IO device – PROFIBUS DP device is an industrial protocol gateway that allows you to seamlessly transfer data between PLC control systems over PROFINET and PROFIBUS networks.

Anybus Communicators are designed to ensure reliable, secure, and high-speed data transfer between different industrial Ethernet and Fieldbus networks. Very easy to install and deploy, the stand-alone gateways enable transparent data exchange between PLCs, allowing you to integrate legacy equipment into modern, high-performance networks without any changes to the hardware and only minimal changes to the software.

Anybus Communicators are built using the award-winning and proven Anybus NP40 industrial network processor providing network conformance, high performance, and reliability. When connecting between PLCs on different networks, extremely fast data cycling is enabled with data transfer of up to 1500 bytes in each direction, meeting most current control application needs as well as supporting future demands.

Quick installation is ensured thanks to the intuitive configuration, easy-to-understand documentation, and smart hardware and housing design.

### Excellent performance
- Instan data transfer - The time required for data transfer between two PLCs is made up of the cycle time of the first network plus the cycle time of the second network. The internal data transfer in the communicator is negligible because it corresponds to the natural fluctuations of the network cycle times (jitter).
- Hardware-accelerated endian conversion (byte swap) - Communicators can change the data representation (endianness) using hardware-accelerated endian conversion to ensure that data is represented correctly in each PLC. You can even convert different parts of the data area in different ways to handle different types of data. This has no impact on performance, relieves the PLC of the data conversion task, and simplifies PLC programming.

### Easy startup
- Dedicated Ethernet configuration port - no special cables required.
- Intuitive web-based drag-and-drop configuration interface - no need to install additional software.
- Front-facing connectors make it easy to connect cables, and the slim form factor saves space on the DIN rail.
- Troubleshoot with powerful diagnostics, including live data monitor, status screen, and support package.

### Latest security features
- Secure boot functionality to detect firmware tampering and protect against malware attacks and infections.
- Security switch that locks your configuration and prevents any unauthorized access.
- The ports used in production have been disabled to prevent malware from being loaded via the ports.

### For industrial environments
- Robust, compact housing.
- Industrial components are CE and UL tested and certified.
- Wide temperature range, -25°C to 70°C.
- Top-hat rail mounting for installation close to the connected devices, reducing wiring effort.
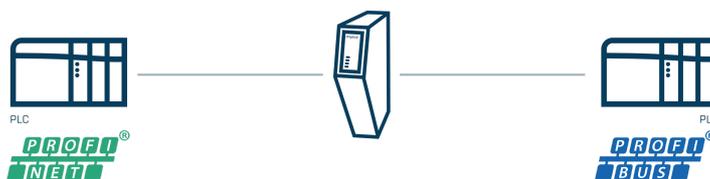
### PROFINET FEATURES
- PROFINET IO-Device (slave)
- Transfer up to 1 024 bytes to and from PROFINET (2048 bytes total)
- 1 ms minimum cycle time
- Conformance class B, Real-Time (RT)
- High robustness against network load, Netload Class III

- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

**PROFIBUS DP DEVICE FEATURES**

- PROFIBUS DPV1 & DPV0 Device (slave)
- Transfer up to 244 bytes to and from PROFIBUS (488 bytes total)
- Automatic baud rate detection up to 12 Mbit/s
- PROFIBUS slave address setting via onboard rotary switches or web interface
- Supports Sync and Freeze and Watchdog
- Supports I&M 0-3
- 1x D-sub 9-pin female PROFIBUS connector
- GSD file available

**GENERAL**

| | |
|---|---|
| **Dimensions (L x W x H) with serial and power connector** | 98 x 27 x 144 mm<br>3.85 x 1.06 x 5,67 in |
| **Weight** | 150 grams, 0.33 lb |
| **Buttons and switches** | Reset button and security switch |
| **LEDs** | Gateway, Network 1 & Network 2 |
| **IP rating** | IP20 |
| **Housing material** | PC ABS, UL 94 VO |
| **Mounting** | DIN rail (35 * 7,5/15) |

**ENVIRONMENT**

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|---|---|
| **Operating temperature** | -25 to 70° C, -13 to 158° F |
| **Storage temperature** | -40 to 85° C, -40 to 185° F |
| **Relative humidity** | 0-95% non condensing |
| **Installation altitude** | Up to 2 000 m |

**POWER**

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|---|---|
| **Input voltage** | 12 - 30 VDC |
| **Current consumption** | Typical: 160 mA @ 24V Max: 400 mA @ 12V |
| **Power connector** | 3-pin plug with screw terminal |
| **Protection** | Reverse voltage protection and short circuit protection |

## ETHERNET PORTS

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|---|---|
| **Ports** | 2+2 x Ethernet |
| **Isolation** | Galvanic isolation |
| **Bitrate** | 10/100 Mbit full duplex |
| **Connector** | RJ45 |
| **Switch**. | Dual port cut-through switch |

## PROFINET

| | |
|---|---|
| **Mode** | PROFINET IO-Device (slave) |
| **Class** | A, B |
| **Communication channels** | Real Time Channel (RT) |
| **Input data size** | 1 024 bytes |
| **Output data size** | 1 024 bytes |
| **Minimum cycle time** | 1 ms |
| **Max number of connections** | 1 IO Controller Application Relationship + 2 Device Access Application Relationships |
| **Netload class** | Class III |
| **I&M records** | Manufacturer data (I&M0), Tag information (I&M1), Date/Time (I&M2), Description (I&M3) |
| **SNMP** | Available |
| **GSDML File** | Available |
| **Certification** | Pending |

## PROFIBUS

| | |
|---|---|
| **Mode** | PROFIBUS DPV1 Device (slave) |
| **Input data size** | 244 bytes |
| **Output data size** | 244 bytes |
| **Baude rate** | Automatic baud rate detection up to 12 Mbit/s |
| **Rotary switches** | PROFIBUS slave address setting via onboard rotary switches or web interface |
| **Features** | Supports Sync and Freeze and Watchdog |
| **I&M records** | Manufacturer data (I&M0), Tag information (I&M1), Date/Time (I&M2), Description (I&M3) |
| **Connector** | 1x D-sub 9-pin female PROFIBUS connector |
| **GSD** | GSD file available |

## CERTIFICATIONS AND STANDARDS

| | |
|---|---|
| **UL** | $_C$UL$_{US}$file number E214107 |
| **CE** | 2014/30/EU |
| **KC** | R-R-ABJ-Communicator |
| **EMC** | EN 61000-6-2<br>EN 61000-4-2<br>EN 61000-4-3<br>EN 61000-4-4<br>EN 61000-4-5<br>EN 61000-4-6<br>EN 61000-6-4<br>EN 55032 |
| **Environment** | IEC 60068-2-1 Ab<br>IEC 60068-2-2 Bb<br>IEC 60068-2-1 Ab<br><br>IEC 60068-2-2 Bb<br>IEC 60068-2-14 Nb<br>IEC 60068-2-30 Db<br>IEC 60068-2-78 Cab<br>IEC 60068-2-78 Cab |
| **Vibration and shock** | IEC 60068-2-27<br>IEC 60068-2-6 |
| **Waste certification** | WEE |

## CONFIGURATION

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|---|---|
| **Configuration software** | Web based configuration |
| **Configuration ports** | Dedicated 10/100 Mbit RJ45 Ethernet configuration port and Ethernet ports |

## SECURITY

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|---|---|
| **Secure boot** | Ensures software authenticity |
| **Security switch** | Physical switch that enable/disable access to the web based configuration interface |

## PRODUCT PACKAGING

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|---|---|
| **Content** | Gateway, power connector, start-up guide, compliance information sheet |
| **Box material** | Cardboard |

## MEAN TIME BETWEEN FAILURE

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|---|---|
| **MTBF** | > 1500000 h, Telcordia Method I Case 3 at 30° C |

## Ordering Information

**ORDER CODE: ABC4023-A**

**WARRANTY:**  3 years

For purchasing instructions and terms and conditions, see: How to buy

# Contact form

# See the Anybus Communicator's

Message to HMS*

Please describe you connectivity requirement

First Name *

First

Last Name *

Last/surname

Company Name *

Please enter your comp

Email *

Enter a valid Email addi

Country*

Type your Country ther

Region/State

Type then select - add

Business Phone*

Enter your business phi

Zip/Post Code

For faster processing

**HMS Privacy Information**

I agree that HMS Networks handles my contact information in accordance with HMS's [Privacy Policy.](#) I understand that I can unsubscribe from mailings and have my data deleted at any time.

☐  I hereby give consent for HMS to process my data*

SUBMIT

# user interface in action!