Anybus® BY HMS NETWORKS

Anybus gateway range

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.

Meet the new family members

→ Communicator

→ Contact Form

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.

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.

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.

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.

Network to Network Communicators

Anybus Communicator - PROFINET IO-Device - Modbus TCP server

The Anybus Communicator PROFINET IO-Device – Modbus TCP server is an industrial protocol gateway that allows you to seamlessly transfer data between PLC control systems over PROFINET and Modbus TCP 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 both bridge and integrate legacy equipment into modern high-performance networks with 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

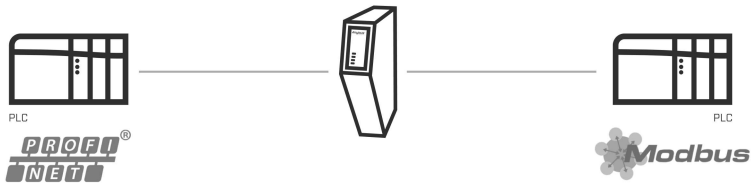
- Dedicated Ethernet configuration port - no special cables required.
- Intuitive web-based drag-and-drop configuration interface - no need to install additional software.
- Front-facing connectors make it easy to connect cables, and the slim form factor saves space on the DIN rail.
- Troubleshoot with 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

MODBUS TCP FEATURES

- Modbus TCP server
- Transfer up to 1 500 bytes to and from Modbus TCP (3 000 bytes total)
- 4 connections
- Function codes 01-06, 15-16, 23, 43/14
- Dual RJ45 Ethernet ports with 10/100 Mbit full duplex
- Daisy chaining with integrated switch

GENERAL

Dimensions (L x W x H) with serial and power connector	98 x 27 x 144 mm 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

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

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

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

MODBUS TCP

Mode	Server
Max number of connections	4
Input data size	1 500 bytes
Output data size	1 500 bytes

CERTIFICATIONS AND STANDARDS

UL	cULusfile number E214107
CE	2014/30/EU
KC	R-R-ABJ-Communicator
EMC	EN 61000-6-2 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-6-4 EN 55032
Environment	IEC 60068-2-1 Ab IEC 60068-2-2 Bb IEC 60068-2-1 Ab IEC 60068-2-2 Bb IEC 60068-2-14 Nb IEC 60068-2-30 Db IEC 60068-2-78 Cab IEC 60068-2-78 Cab
Vibration and shock	IEC 60068-2-27 IEC 60068-2-6
Waste certification	WEE

CONFIGURATION

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

SECURITY

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

PRODUCT PACKAGING

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

MEAN TIME BETWEEN FAILURE

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

File	Version	Size	Read online

Ordering Information

ORDER CODE: ABC4017
WARRANTY: 3 years
For purchasing instructions and terms and conditions, see: How to buy

Contact form

Message to HMS*

Please describe you connectivity requirement

See the Anybus Communicator's user interface in action!

First Name * Last Name *

First | Last/surname

Company Name * Email *

Please enter your compa | Enter a valid Email addr

Country* Region/State

Type your Country then | Type then select - add if

Business Phone* Zip/Post Code

Enter your business pho | 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