# Connectivity solutions for Rockwell Automation Integrated Architecture



LINKING DEVICES | GATEWAYS | WIRELESS | PC INTERFACES | REMOTE SOLUTIONS





YOUR GLOBAL PARTNER FOR INDUSTRIAL COMMUNICATION AND REMOTE SOLUTIONS

For more than 25 years, HMS has been providing connectivity solutions to Rockwell Automation and their partners and customers through our brands Anybus<sup>®</sup>, IXXAT<sup>®</sup> and eWON<sup>®</sup>. Our relationship with Rockwell is one of the major driving forces for our own product development. Together, HMS and Rockwell keep evolving to meet the communication challenges of today and in the future.

Automotive, factory and building automation, food and beverage, mining, oil and gas, infrastructure and transportation, life sciences and water treatment, are just some industrial segments where HMS' solutions for industrial communication are connecting Rockwell Automation equipment worldwide, everyday.

#### A GLOBAL PRESENCE WITH A LOCAL TOUCH

Whether we are directly meeting with the different Rockwell divisions or distributors worldwide, on-the-road at Rockwell RAOTM's or participating at Automation Fair, you can be sure you will find a friendly HMS employee or partner, ready to discuss and help you find the right connectivity solution.





#### **QUICK FIND**

THE CONNECTED MACHINE - ENABLING IIOT CAPABILITIES FOR MACHINE BUILDERS Network connectivity, safety, remote access, machine control, wireless access, predictive maintenance, security
ETHERNET/IP LINKING DEVICES FOR LOGIX <sup>®</sup> PLC PLATFORMS Integrate Modbus TCP, PROFIBUS & Serial RS232/485/DF1 devices to Control/CompactLogix PLCs
NETWORK CONNECTIVITY FOR THE FACTORY FLOOR - GATEWAYS FOR SYSTEM INTEGRATION - ANYBUS® Integrate/Interconnect networks, machines and devices using PROFINET/PROFIBUS/MODBUS/BACnet/CAN/Serial
GO WIRELESS - WIRELESS SOLUTIONS FOR NETWORK BRIDGING AND MACHINE ACCESS - ANYBUS <sup>®</sup> WLAN/Bluetooth <sup>®</sup> connectivity for devices and machines on serial/CAN or EtherNet/IP networks
ALL YOU NEED FOR CAN - CAN INFRASTRUCTURE EQUIPMENT FOR SYSTEM INTEGRATION - IXXAT <sup>®</sup> Solutions for machine control, connecting and extending CAN networks
REMOTE SOLUTIONS - REMOTE MONITORING AND CONTROL, VPN MACHINE ACCESS - eWON <sup>®</sup> Remote Access for Logix PLCs, monitor and control Rockwell equipment remotely via the cloud

#### **ENCOMPASS™ PARTNER PROGRAM**

HMS is an active global member of the Encompass<sup>™</sup> partner program.

Automation installations worldwide.

Kevin Knake **Executive Vice President, HMS Industrial Networks Inc** 

# The Connected machine Hand-in hand with The Connected Enterprise

The Connected Machine concept from HMS displays what HMS can do for machine builders in terms of industrial machine connectivity.

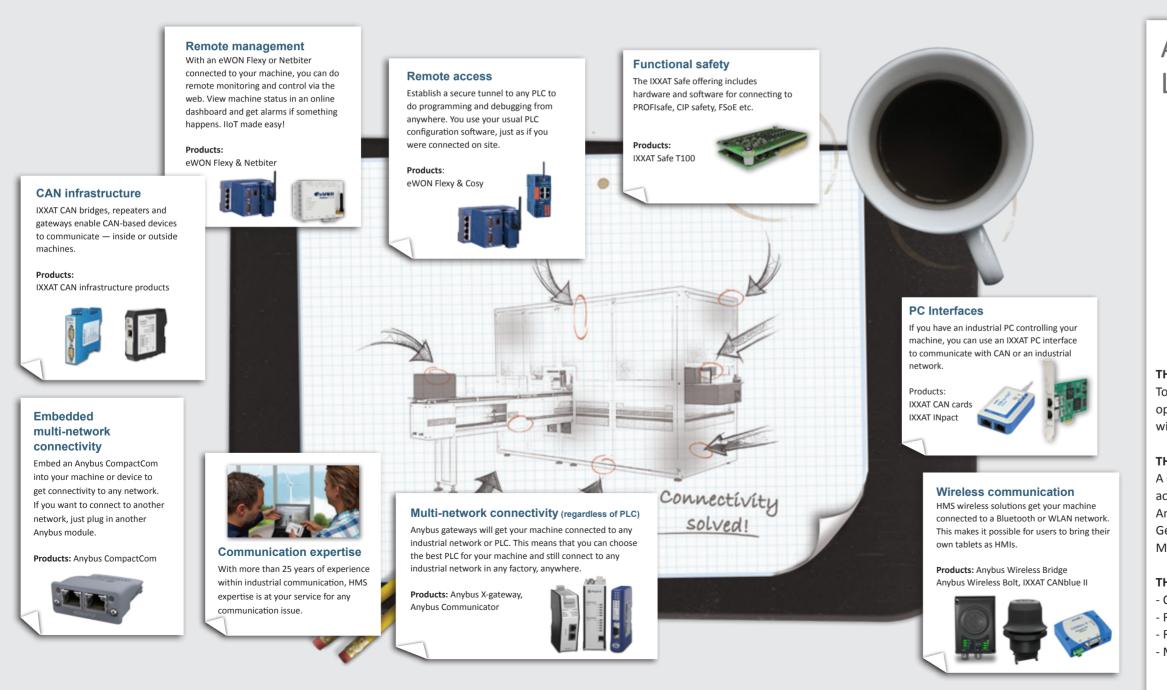
Real-time communication, remote access, data monitoring, wireless architectures, safety and security — all are vital parts.

With trends such as the Internet of Things (IoT) and Industry 4.0, more and more industrial machines are required to become networked.

Highly connected machinery with data-enabled operations speed up time-to-market, lower costs, improve asset utilization and reduce risk.

HMS products, solutions and know-how enable industrial machinery to get connected to systems and networks and are therefore a must-have for any industrial company wishing to operate globally.

This is nothing new to HMS, our products connect millions of devices around the world and enable







our customers to expand their market and improve their business.

HMS' long expertise, large installed base, and wide market coverage, make us the undisputed market leader of our field.

# A Connected Machine Live at Automation Fair



#### THE CHALLENGE

To fully automate a paper slitter machine to increase machine operator safety and at the same time to get both remote and wireless access to machine control and diagnostics.

#### THE SOLUTION

A combination of a Fanuc robot arm, eWON Cosy remote access VPN router, a HMS EtherNet/IP Linking Device and an Anybus Wireless Bolt, in collaboration with know-how from Georgia-based machine builder JSI and system integrator Millennium Controls.

#### THE RESULT

- Operators avoid contact with sharp slitter blades - Reduced downtime thanks to automated blade changes - Reduced service costs since service can be done remotely - Maximized blade life through wear traceability

#### **EtherNet/IP Linking Devices** for PROFIBUS, Modbus TCP and Serial Devices

# Ether Vet/IP

In-chassis alternatives for Logix<sup>™</sup> controllers with seamless Studio 5000<sup>®</sup> integration



Integrate devices running PROFIBUS, Modbus TCP or serial/DF1 RS-232/485 protocols into ControlLogix<sup>®</sup> or CompactLogix<sup>®</sup> PLCs from Rockwell Automation.

#### Why use a Linking Device instead of an in-chassis or PLC communication module?

#### **REDUCE PROJECT COSTS**

Cost-effective hardware drastically reduces costs for integrating equipment to Rockwell Logix platforms.

#### MAXIMIZE PERFORMANCE

"Big Data" up to 8KB I/O data. Does not affect PLC backplane performance.

#### EASIER CONFIGURATION

Seamless Studio 5000 Logix Designer integration with Custom Add-on-Profiles simplifies configuration and reduces commissioning time.

#### **IMPROVED SYSTEM ARCHITECTURE**

Mounts close to the devices, saves rack space and eliminates long proprietary cable runs. Uses the existing Ethernet network and limits points of failure.



Get up and running fast with our "How to configure" videos



#### EtherNet/IP to PROFIBUS Linking Device

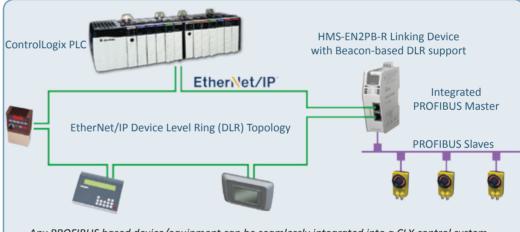
The EtherNet/IP to PROFIBUS Linking Device allows you to connect any PROFIBUS device or system to your ControlLogix® and CompactLogix<sup>®</sup> PLC from Rockwell Automation.

The stand-alone Linking Device eliminates the need for a PROFIBUS PLC and configuration software, as everything is configured inside Studio 5000 Logix designer.

The fast and easy way to implement PROFIBUS devices to Logix PLCs

Automatically generated, named and structured controller tags within Studio 5000 for each connected PROFIBUS device significantly reduces commissioning time.

The Linking Device acts as a slave (adapter) on EtherNet/IP and as a master on the PROFIBUS side, handling up to 7000 bytes of I/O data. There is no reduction to the Logix PLC backplane performance (PLC execution time), even when large amounts of data is transferred.



Any PROFIBUS based device/equipment can be seamlessly integrated into a CLX control system

#### ADDITIONAL PROFIBUS MASTER FEATURES

- Complete PROFIBUS DP/DPV1 Master functionality according to IEC 61158.
- Supports DPV1 Class 1 and 2 for acyclic data exchange
- Controls up to 125 PROFIBUS slaves
- Supports all baudrates up to 12Mbit/s
- PROFIBUS network configuration accessed through Studio 5000.

#### ADDITIONAL ETHERNET/IP ADAPTER FEATURES

- Dual EtherNet/IP ports with 10/100 Mbit, full or half-duplex operation.
- Support for Explicit Messaging including DPV1 specific functions on PROFIBUS



#### HIGHLIGHTS

- No PROFIBUS software needed
- Reduce PROFIBUS cabling
- Seamless Studio 5000 integration
- Up to 10 EIP I/O connections
- · No PLC performance reduction
- ODVA EIP conformance tested
- Encompass Partner Product
  - **ORDERING INFORMATION**

#### Part No: HMS-EN2PB-R

Installation guide, Power supply not Included)



Size	110 x 35 x 101 mm
Oper. Temp Stor. Temp	-25 to +60°C -40 to +85 °C
Power	24 VDC +/-10%
Isolation	Yes
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 1 DSUB 9F
Baudrates	10/100 + 9600 -12Mbits
ConfigPorts	1x USB, 1 MicroSD
Certification	CE, ATEX, Haz.Loc UL & cUL
Guarantee	3 years

#### EtherNet/IP to Modbus TCP Linking Device

The EtherNet/IP to Modbus TCP Linking Device allows you to connect any Modbus TCP device or system to your ControlLogix<sup>™</sup> and CompactLogix<sup>™</sup> PLC from Rockwell Automation.

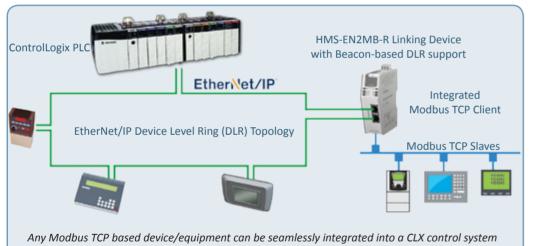
The stand-alone Linking Device eliminates the need for a Modbus TCP PLC and configuration software, as everything is configured inside Studio 5000 Logix designer.



Simplifying implementation of Modbus TCP devices to Logix PLCs

Automatically generated named and structured controller tags within Studio 5000 for each connected Modbus TCP device significantly reduces commissioning time.

The Linking Device acts as a slave (adapter) on EtherNet/IP and as a Client/Master on the Modbus TCP side, handling up to 8000 bytes of I/O data. There is no reduction to the Logix PLC backplane performance (PLC execution time), even when large amounts of data is transferred.



#### ADDITIONAL MODBUS TCP CLIENT/MASTER FEATURES

- Controls up to 64 Modbus TCP server (slaves) connections and transactions
- Downlink Live List providing Modbus TCP transaction status to uplink PLC
- Control and Status words for downlink network control/status
- Supports the generation of Process Variable Data Tags on Modbus command level
- Supported Modbus TCP functions: 1, 2, 3, 4, 5, 6, 15, 16, 23
- Modbus TCP network configuration accessed through Studio 5000

#### **ETHERNET/IP ADAPTER FEATURES**

- Dual EtherNet/IP ports with 10/100 Mbit, full or half-duplex operation
- Beacon-based DLR (Device Level Ring) and linear network topology supported

#### HIGHLIGHTS

· No Modbus TCP software needed

- Reduce cabling and rack space
- Seamless Studio 5000 integration
- Up to 10 EIP I/O connections
- No PLC performance reduction
- ODVA Conformance Tested
- Encompass Partner Product

#### ORDERING INFORMATION

Part No: HMS-EN2MB-R Installation guide, Power supply not Included)

SPECIFICATIONS

	-
Size	110 x 35 x 101 mm
Oper. Temp Stor. Temp	-25 to +60°C -40 to +85 °C
Power	24 VDC +/-10%
Isolation	Yes
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 2x RJ45
Baudrates	10/100 + 9600 -12Mbits
ConfigPorts	1x USB, 1 MicroSD
Certification	CE, ATEX, Haz.Loc, UL & cUL
Guarantee	3 years

#### **EtherNet/IP to Serial Linking Device**

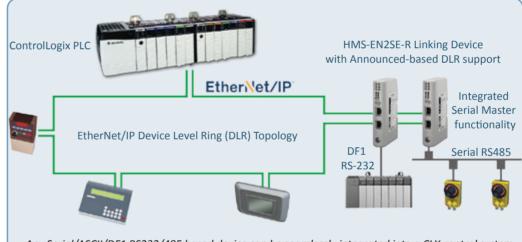
The EtherNet/IP to Serial Linking Device allows you to retrofit any existing serial-based RS-232/422/485 device to your ControlLogix<sup>®</sup> and CompactLogix<sup>®</sup> PLC from Rockwell Automation.

The stand-alone Linking Device eliminates the need for any additional configuration software, licenses or programming as everything is configured inside Studio 5000 Logix designer.

#### Integrate devices with almost any serial protocol to Logix PLCs

The Linking Device is capable of converting almost any type of serial protocol such as Modbus RTU, DF1, ASCII, or any other type of proprietary, Request/Response or Produce/Consume protocol.

Automatically generated, named and structured controller tags within Studio 5000 for each connected serial device significantly reduces commissioning time.



Any Serial/ASCII/DF1 RS232/485 based device can be seamlessly integrated into a CLX control system

#### SERIAL INTERFACE FEATURES

- Up to 500 bytes of Input data and 496 bytes of Output data
- · Modbus RTU Master functionality with pre-defined configuration wizard
- DF1 Master functionality with selectable pre-loaded DF1 commands
- Configure ASCII or vendor specific protocols via a visual byte-based frame building
- Ability to make popular checksum calculations
- Line Listener to analyze serial telegrams on the sub-network (access via Studio 5000)

#### ADDITIONAL ETHERNET/IP ADAPTER FEATURES

- Dual EtherNet/IP ports with 10/100 Mbit, full or half-duplex operation.
- TCP/IP setting via web-page, configuration tool, DHCP/ARP or via DIP switches



#### HIGHLIGHTS

- Selectable RS-232/422/485
- Reduce long cable runs
- · No serial device HW/SW changes
- Multi-drop upto 31 nodes (RS485)
- Up to 10 EIP I/O connections
- ODVA EIP conformance tested
- · Encompass Partner Product

#### **ORDERING INFORMATION** 〕፹

#### Part No: HMS-EN2SE-R

Installation guide, DSUB connector with screw terminals for sub-network (Power supply not included)

#### Part No: 019570 (Optional)

USB-RS232 configuration adapter



Size	120 x 25 x 75 mm (LWD)
Oper. Temp Stor. Temp	0 to +55 °C 0 to +85 °C
Power	24 VDC +/-10%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 1 DSUB 9F
Baudrates	10/100 + 1,2-57,6 kbit/s
ConfigPorts	1x USB
Certification	CE, ATEX, Haz.Loc UL & cUL
Guarantee	3 years



# Solving connectivity problems on the factory floor

# **Connect to other PLC networks**

#### PRODUCT: Anybus<sup>®</sup> X-gateway<sup>™</sup>

Anybus X-gateways connect Rockwell PLC systems using EtherNet/IP with almost any other PLC fieldbus/Ethernet network.

- Connect EtherNet/IP with 17 other industrial networks
- Scanner/Adapter/Master/Slave/Client/Server interfaces
- All software included
- Easy configuration no programming needed!



## PRODUCT: Anybus<sup>®</sup> Communicator™ enabling you to retrofit existing non-networked serial devices to Rockwell PLC systems via EtherNet/IP.

- For serial RS232/422/485 devices via RTU/ASCII/DF1/CAN
- Proprietary protocols: Produce/Consume, Request/Response
- No HW/SW modifications needed for the connected devices
- Easy configuration no programming needed!

RS422 RS485

MILLIONS OF DEVICES **CAN'T BE WRONG** 

## Connect. Configure, Done!

"No matter which gateway you choose, you configure the network connection in the easy-to-use Anybus Configuration Manager. Simply connect the gateway via USB or Ethernet, create the configuration and you're done!"

**Christian Bergdahl** Product Marketing Manager, Anybus

## Connect to IoT platforms

Integrate factory floor data with IoT systems such as ThingWorx, SAP, OPC UA etc. Anybus gateways are included in most of the *major PLC manufacturers' system building software making it* easy for you to integrate them into your network design.

# **Retrofit serial/CAN devices**

Anybus Communicators are stand-alone protocol converter gateways









#### **PROFINET to EtherNet/IP**

The Anybus X-gateway allows you to seamlessly connect any Rockwell PLC control system on EtherNet/IP to PROFINET-IRT.

No programming skills are needed to set up the X-gateway. All configuration is made with the Anybus Configuration Manager software, included with the X-gateway.



HIGHLIGHTS

Fast cyclic I/O data copy 10-15 ms

Integrated Web server, Email client

· Included Anybus OPC DA server

PROFINET 2.3 Conformance

ODVA Conformance Tested

Encompass Partner Product

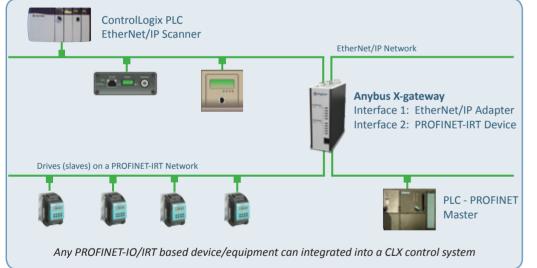
SPECIFICATIONS

· No additional software required

Connecting PROFINET networks and devices to Rockwell Logix PLCs

The X-gateway's primary function is the fast transfer of cyclic I/O data between PROFINET and EtherNet/IP. This offloads your PLC from working with additional calculations.

The gateway acts as an Adapter on the EtherNet/IP network and a device on the PROFINET-IRT network. The data transmission is completely transparent with a maximum I/O data capacity of 220 bytes in each direction.



#### ORDERING INFORMATION

Part No: AB7504: Anybus X-gateway EtherNet/IP Adapter - PROFINET-IRT Device

Included components: USB configuration cable, Quick start documentation, Anybus Configuration Manager software, Anybus OPC server software. (Power supply not Included)

#### **RELATED PRODUCTS:**

AB7503: PROFINET-IRT Device - EtherNet/IP Scanner AB7501: PROFINET-IRT Device - DeviceNet Scanner AB7509: PROFINET-IRT Device - DeviceNet Adapter AB7514: PROFINET-IRT Device - ControlNet Adapter

Size	114 x 44 x 127 mm LWD
Oper. Temp Stor. Temp	-25 to +65°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 2x RJ45
Baudrates	10/100 + 10/100 MBit/s
Config Port	1x USB
I/O Data	Total 440 bytes IN/OUT (restricted by Profinet)
Config	via .GDSML file, .EDS file for EIP
EIP DLR	Announced-based
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS

#### Guarantee 3 years

#### **PROFIBUS to EtherNet/IP**

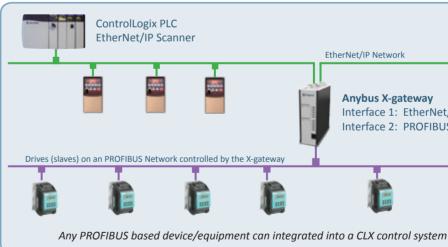
The Anybus X-gateway allows you to seamlessly connect any Rockwell PLC control system on EtherNet/IP to PROFIBUS.

No programming skills are needed to set up the X-gateway. All configuration is made with the Anybus Configuration Manager software, included with the X-gateway.

#### Connecting PROFIBUS networks and devices to Rockwell Logix PLCs

The X-gateway's primary function is the fast transfer of cyclic I/O data between PROFIBUS and EtherNet/IP. This offloads your PLC from working with additional calculations.

This gateway version acts as an Adapter on the EtherNet/IP network and a Master on the PROFIBUS network, eliminating the need for a PROFIBUS-based PLC. The data transmission is completely transparent with a maximum I/O data capacity of 512 bytes in each direction, connecting up to 125 PROFIBUS slaves.





Part No: AB7800: Anybus X-gateway - EtherNet/IP Adapter - PROFIBUS Master Included components: USB configuration cable, Quick start guide, manuals, Anybus Configuration Manager software, Anybus OPC server software. (Power supply not Included)

#### **RELATED PRODUCTS:**

AB7832: PROFIBUS Slave - EtherNet/IP Adapter AB7671: PROFIBUS Slave - EtherNet/IP Scanner AB7802: PROFIBUS Master - DeviceNet Adapter AB7844: PROFIBUS Slave - DeviceNet Adapter

AB7663: PROFIBUS Slave - DeviceNet Scanner AB7803: PROFIBUS Master - ControlNet Adapter AB7845: PROFIBUS Slave - ControlNet Adapter



Anybus X-gateway Interface 1: EtherNet/IP Adapter Interface 2: PROFIBUS DPV1 Master



- Integrated PROFIBUS Master
- No additional software required
- · Fast cyclic I/O data copy 10-15 ms
- Integrated Web server, Email client
- Included Anybus OPC DA server
- PROFIBUS-DPV1 Conformance
- ODVA Conformance Tested
- · Encompass Partner Product



Size	114 x 44 x 127 mm LWD
Oper. Temp Stor. Temp	-25 to +65°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 2x DSUB M/F
Baudrates	10/100 + PDP 12 Mbit/s
Config Port	1x USB + 1x RS232
I/O Data	Total 1024 bytes IN/OUT
Config	via .GDSML file, .EDS file for EIP
EIP DLR	Announced-based
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years

#### Modbus TCP Client to EtherNet/IP

The Anybus X-gateway allows you to seamlessly connect any Rockwell PLC control system on EtherNet/IP to Modbus-TCP.

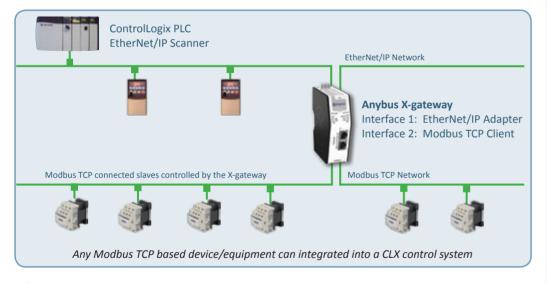
No programming skills are needed to set up the X-gateway. All configuration is made with the Anybus Configuration Manager software, included with the X-gateway.



Integrating Modbus TCP networks and devices to Logix PLCs

The X-gateway's primary function is the fast transfer of cyclic I/O data between Modbus TCP and EtherNet/IP. This offloads your PLC from working with additional calculations.

This gateway acts as an EtherNet/IP Adapter and a Client on the Modbus TCP network, eliminating the need for a Modbus TCP-based PLC. The data transmission is completely transparent with a maximum I/O data capacity of 256 bytes in each direction, connecting up to 64 Modbus TCP slaves.



#### **W** ORDERING INFORMATION

Part No: AB9006: Anybus X-gateway - EtherNet/IP Adapter - Modbus TCP Client

Included components: Quick start guide, manuals, Anybus Configuration Manager software. (Power supply not Included)

#### **RELATED PRODUCTS:**

021520-B: Wall mount bracket

021530-B 256 MB SD Memory card (Industrial grade) AB7508: Modbus TCP Client - DeviceNet Adapter AB7509: Modbus TCP Client - ControlNet Adapter

AB7509: Modbus TCP Client - PROFIBUS Slave AB7509: Modbus TCP Client - PROFINET-IRT Device AB7509: Modbus TCP Client - Modbus TCP Server (Additional network versions available)

HIGHLIGHTS

Integrated Modbus TCP Client

- Fast cyclic I/O data copy 10-15 ms
- · No additional software required Integrated Web server, Email client
- SD-card slot for easy backup Modbus TCP Conformance
- ODVA Conformance Tested
- Encompass Partner Product

Size	110 x 35 x 101 mm LWH
Oper. Temp Stor. Temp	-25 to +70°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 2x RJ45
Baudrates	10/100 + 10/100 MBit/s
Port	1x USB firmware updat
I/O Data	Total 512 bytes IN/OUT (restricted by MTCP)
Config	Via Internal Web page, .EDS file for EIP
EIP DLR	Announced-based
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years

#### Modbus TCP Server to EtherNet/IP

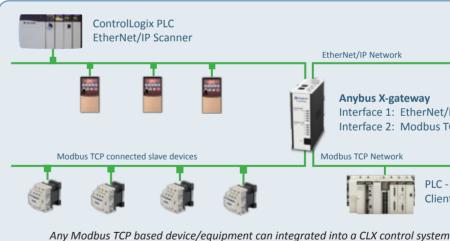
The Anybus X-gateway allows you to seamlessly connect any Rockwell PLC control system on EtherNet/IP to Modbus-TCP.

No programming skills are needed to set up the X-gateway. All configuration is made with the Anybus Configuration Manager software, included with the X-gateway.

Connecting Modbus TCP networks and devices to Logix PLCs

The X-gateway's primary function is the fast transfer of cyclic I/O data between Modbus TCP and EtherNet/IP. This offloads your PLC from working with additional calculations.

This gateway version acts as an Adapter on the EtherNet/IP network and a Server (slave) on the Modbus TCP network, eliminating the need for a Modbus TCP-based PLC. The data transmission is completely transparent with a maximum I/O data capacity of 512 bytes in each direction.





Part No: AB7632: Anybus X-gateway - EtherNet/IP Adapter - Modbus TCP Server Included components: USB configuration cable, Quick start guide, manuals, Anybus Configuration Manager software, Anybus OPC server software. (Power supply not Included)

#### **RELATED PRODUCTS:**

AB7669: Modbus TCP Server - EtherNet/IP Scan	ner
AB7630: Modbus TCP Server - DeviceNet Scann	er

AB7635: Modbus TCP Server - DeviceNet Adapter AB7636: Modbus TCP Server - ControlNet Adapter



Interface 1: EtherNet/IP Adapter Interface 2: Modbus TCP Server

PLC - Modbus TCP Client (Master)



- Fast cyclic I/O data copy 10-15 ms
- · No additional software required
- Integrated Web server, Email client
- · Included Anybus OPC DA server
- Modbus TCP Conformance
- ODVA EIP Conformance Tested
- · Encompass Partner Product



Size	114 x 44 x 127mm LWD
Oper. Temp Stor. Temp	-25 to +65°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail or Wall mount
Connectors	2x RJ45 + 2x DSUB M/F
Baudrates	10/100 + PDP 12 Mbit/s
Config Port	1x USB + 1x RS232
I/O Data	Total 1024 bytes IN/OUT
Config	via .GDSML file, .EDS file for EIP
EIP DLR	Announced-based
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years

#### **CANopen Manager (Master) to EtherNet/IP**

The Anybus X-gateway allows you to seamlessly connect any Rockwell PLC control system on EtherNet/IP to CANopen.

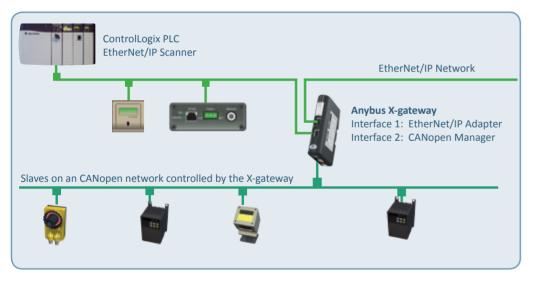
No programming skills are needed to set up the X-gateway. All configuration is made with the Anybus Configuration Manager software, included with the X-gateway.



Integrating CANopen networks and devices to Rockwell Logix PLCs

The Anybus X-gateway CANopen provides a seamless connection between a EtherNet/ IP network and a secondary CANopen sub-network. This makes it possible to integrate CANopen devices into a Rockwell Logix PLC system.

This gateway version acts as an Adapter on the EtherNet/IP network and a Manager on the CANopen network, eliminating the need for a CANopen-based PLC. The data transmission is completely transparent with a maximum I/O data capacity of 510 bytes, or 128 CANopen PDOs in each direction, connecting up to 126 CANopen slaves.



#### **ORDERING INFORMATION**

Part No: AB7306: Anybus X-gateway - EtherNet/IP Adapter - CANopen Manager (Master)

Included components: Quick start guide, manuals, Anybus Configuration Manager software (License not included), Anybus OPC server software. (Power supply not Included)

#### **RELATED PRODUCTS:**

021670: USB-CAN Config Adapter (License included) AB7838: EtherNet/IP Adapter - CANopen Slave AB7677: EtherNet/IP Scanner - CANopen Slave

# HIGHLIGHTS

Integrated CANopen Manager

- Fast cyclic I/O data copy (5 ms)
- · No additional software required
- Integrated Web server, Email client
- Included Anybus OPC server
- CANopen Conformance Tested ODVA Conformance Tested
- · Encompass Partner Product

SPECIFICATIONS Size 120 x 75 x 27mm LWD Oper, Temp -25 to +55°C -40 to +85 °C Stor. Temp Power 24 VDC +/-20% Isolation Yes on both sides Rating IP20 DIN-rail or Wall mount Mounting 2x RJ45 + 1x DSUB M Connectors 10/100 + 20kbit /1MBit/s Baudrates Config Port 1x USB Total 1024 bytes IN/OUT I/O Data CANopen via config tool, .EDS file for EIP Confia EIP DLR Announced-based Certification CE. ATEX. Haz.Loc. UL & cUL, RoHS

Guarantee 3 years

#### Modbus to BACnet (Factory to Building)

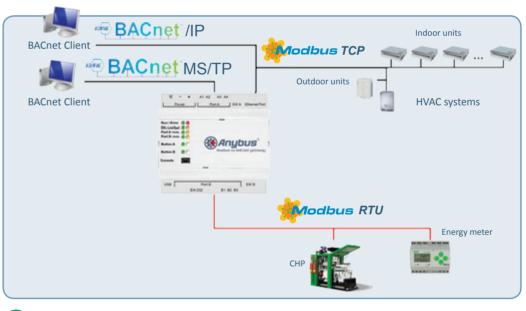
The Anybus Modbus to BACnet gateway allows Modbus slave devices to communicate on a BACnet network. It allows both Modbus RTU and Modbus TCP signals show up as individual BACnet objects on any BACnet/IP or BACnet MS/TP network.

This enables central control and supervision of Modbus devices from a BACnet Building Monitoring System (BMS).

Connecting factory and building automation networks

Modbus RTU and BACnet MS/TP networks are connected to their corresponding serial ports of the gateway, while Modbus TCP and BACnet/IP networks are connected to the Ethernet port.

You create a configuration project using the included, easy and powerful Anybus Configuration Manager (MAPS). You can then do commissioning and troubleshooting also using this tool.



#### ORDERING INFORMATION

Part No: AB9900-100: Anybus Modbus to BACnet Gateway (100 datapoints) Part No: AB9900-250: Anybus Modbus to BACnet Gateway (250 datapoints) Part No: AB9900-600: Anybus Modbus to BACnet Gateway (600 datapoints) Part No: AB9900-1200: Anybus Modbus to BACnet Gateway (1200 datapoints) Part No: AB9900-3000: Anybus Modbus to BACnet Gateway (3000 datapoints)

Included components: Mini USB to Standard USB configuration cable. Installation guide. Anybus Configuration Manager software (MAPS). (Power supply not Included)



## HIGHLIGHTS

- Variable datapoints 100-3000 signals
- · For small or large applications
- · Connect upto 254 Modbus devices
- Import/export to MS Excel
- Included Configuration Tool
- Supports BACnet version 12
- BTL certification



-	
Size	90 x 88 x 56mm LWD
Oper. Temp Stor. Temp	-0 to +60°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail
Port A	1x RS232 DSUB-M 1x SGND
Port B	1x RS232 DSUB-M 1x RS485 3-pole
Eth. Port	1x RJ45 10/100 Mbit/s 2x LED's - Activity/Link
Config	Mini USB / Web-based
Datalogging	via additional USB port with external USB stick
Certification	BTL, CE, UL/cUL, RoHS
Guarantee	3 years

#### Connect serial devices to EtherNet/IP

The Anybus<sup>®</sup> Communicator<sup>™</sup> allows your to retrofit existing serial based industrial devices and equipment to a EtherNet/IP control system without the need for any changes to the connected device. Just connect, configure and you're done!

This compact gateway can connect up to 31 serial nodes and consumes very little space in a switching cabinet. It can be easily mounted close to the serial devices, cutting back on cabling.



HIGHLIGHTS

Selectable RS232/422/485

No serial device HW/SW changes

· Visual serial frame building interface

Additional support for Modbus TCP

Integrated Web server, Email client

RTU/DF1 Master functionality

· 6-step RTU config wizard

Selectable DF1 commands

Handy Save/Load feature

ODVA Conformance Tested

Encompass Partner Product

**SPECIFICATIONS** 

IP20

DIN-rail

2x RJ45

1x RS-232

via .EDS file

Announced-based

CE. ATEX. Haz.Loc.

UL & cUL, RoHS

-25 to +55°C -40 to +85 °C

24 VDC +/-20%

Yes on both sides

10/100 / 2-57.6 Kbit/s

Total 509 bytes IN and 505 bytes OUT

Size

Oper. Temp

Stor. Temp Power

Isolation

Rating

Mounting

Connectors

Baudrates

EIP I/O

EIP DLR

Certification

Guarantee 3 years

Data EIP Config

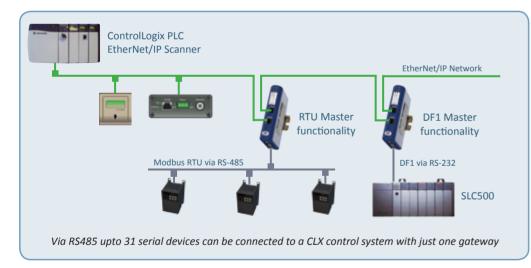
Config Port

120 x 27x 75mm (LWD)

#### Retrofit existing serial RS232/422/485/DF1 devices to Logix PLCs

The Communicator performs an intelligent protocol conversion and presents the serial data to the Logix PLC Controller as easily processed I/O data. It's capable of converting almost any type of serial protocol. Such as Modbus RTU, DF1, ASCII, or any other type of proprietary; Request/Response or Produce/ Consume protocol.

No programming skills are needed as configuration is made using the included Anybus Configuration Manager.



#### ORDERING INFORMATION

Part No: AB7072: Anybus Communicator EtherNet/IP

Included components: RS-232 configuration cable, D-sub connector with screw terminals, Quick start guide, manuals, Anybus Configuration Manager software. (Power supply not Included)

#### **RELATED PRODUCTS:**

019570: USB to RS-232 configuration cable AB7001: Anybus Communicator DeviceNet AB7006: Anybus Communicator ControlNet AB7000: Anybus Communicator PROFIBUS AB7078: Anybus Communicator PROFINET-IRT AB7010: Anybus Communicator Modbus RTU (Plus an additional 10 other versions available)

#### Connect CAN-based devices to EtherNet/IP

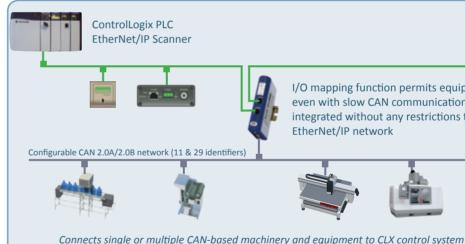
The Anybus<sup>®</sup> Communicator CAN<sup>™</sup> allows your to retrofit existing CAN based industrial machines and equipment to a EtherNet/IP control system without the need for any changes to the connected device. Just connect, configure and you're done!

This compact gateway consumes very little space in a switching cabinet. It can be easily mounted close to the connected CAN devices, cutting back on cabling.

#### Retrofit existing CAN 2.0A/2.0B devices to Rockwell Logix PLCs

For industrial machines and devices with a CAN 2.0A or 2.0B interface, the Communicator performs an intelligent protocol conversion and presents the CAN data to the Logix Controller as easily processed I/O data. It is possible to configure almost any Produce/Consume, Request/Response protocols with its flexible CAN frame building method.

No proprietary configuration software is needed. All necessary configuration is performed using the Anybus Configuration Manager, included with the gateway.





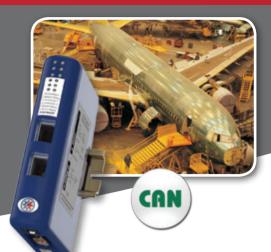
Part No: AB7318: Anybus Communicator CAN - EtherNet/IP

Included components: USB configuration cable, CAN D-sub connector, Quick start documentation, Anybus Configuration Manager software. (Power supply not Included)

#### **RELATED PRODUCTS:**

AB7313:	Anybus Communicator CAN - DeviceNet
AB7314:	Anybus Communicator CAN - ControlNet
AB7312:	Anybus Communicator CAN - PROFIBUS
AB7328:	Anybus Communicator CAN - PROFINET-IRT

AB7319: Anybus Communicator CAN - Modbus TCP AB7316: Anybus Communicator CAN - Modbus RTU (Plus an additional 6 other versions available)



I/O mapping function permits equipment even with slow CAN communication to be integrated without any restrictions to the



#### HIGHLIGHTS

- No PLC function blocks needed
- · No serial device HW/SW changes
- Upto 128 transactions 256 frames
- Visual CAN frame building interface
- Additional support for Modbus TCP
- · Integrated Web server, Email client
- · Handy Save/Load feature
- · Live List for CAN transaction status
- Additional support for Modbus TCP
- ODVA Conformance Tested
- Encompass Partner Product

Size	120 x 27x 75mm (LWD)
Oper. Temp Stor. Temp	-25 to +55°C -40 to +85 °C
Power	24 VDC +/-20%
Isolation	Yes on both sides
Rating	IP20
Mounting	DIN-rail
Connectors	2x RJ45
Baudrates	10/100 - 20 kbit/s - 1 MBit/s
Config Port	1x DSUB Male
EIP I/O Data	Total 509 bytes IN and 505 bytes OUT
EIP Config	via .EDS file
EIP DLR	Announced-based
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years

# Go wireless!

Wireless technologies such as Bluetooth and WLAN are becoming increasingly adopted in industrial applications. The benefits are obvious: reduced cabling and easier installation, especially suited for hard-to-reach locations.

With performance, security and reliability now being on par with wired communication, Anybus wireless products will enable you to keep up with the demands of the modern factory and the Industrial Internet of Things.

JAILDUS®

DID YOU KNOW THAT: Wireless networks are redefining the industrial networking picture, growing quickly by 32% and now account for 6% of the total network market. Within Wireless, WLAN is the most popular technology, followed by Bluetooth.

#### Bridge and Bolt work together seamlessly!

"Anybus® Wireless Bridge™ and Anybus® Wireless Bolt™ add to the flexibility of industrial networking. They also share the same technology inside working seamlessly together. With different form factors, they are suitable for the varying physical demands of industrial wireless applications.

Martin Falkman Product Manager — Anybus Wireless

# Replace Ethernet cabling with a robust wireless connection

#### PRODUCT: Anybus<sup>®</sup> Wireless Bridge™

Anybus Wireless Bridge is ideal for system integrators needing to establish a robust wireless connection for industrial use. The Wireless Bridge is often used in pairs but can also be used as an access point connecting up to 7 clients.

- Industrial Ethernet cable replacement
- Bluetooth and WLAN
- Point-to-point or Multipoint
- For hard-to-reach locations
- Effective range up to 400 m

Give a machine wireless access

#### PRODUCT: Anybus<sup>®</sup> Wireless Bolt<sup>™</sup>

Anybus Wireless Bolt is ideal for machine builders wanting to give their machines wireless access. It is mounted onto a cabinet or a machine and connects using Ethernet, CAN or Serial communication.

- Configure/troubleshoot a machine wirelessly
- BYOD, use your laptop or cell as a HMI
- Connect data with SCADA or Cloud applications
- Bluetooth and WLAN
- Connector, processor and antenna included
- Effective range up to 100 m



#### Bridge EtherNet/IP over Bluetooth or WLAN

The Anybus<sup>®</sup> Wireless Bridge II<sup>™</sup> enables you create a robust wireless connection between two points in an industrial Ethernet network.

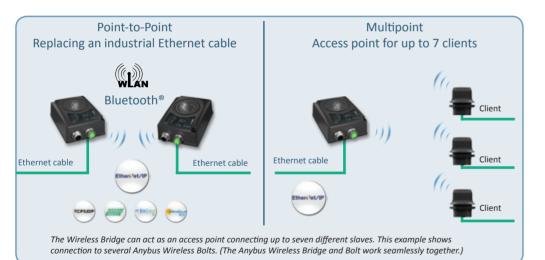
This second generation of the proven and trusted product can communicate via both Bluetooth and WLAN. It is ideal for communication through hazardous areas or hard-to-reach locations where cables are not desirable.

Bluetooth® I II

The perfect choice when industrial Ethernet cables are not desirable

Use the Anybus Wireless Bridge to create a wireless connection in an EtherNet/IP. PROFINET, Modbus TCP or BACnet/IP network. You can use the same hardware for both Bluetooth or WLAN communication, with a range of up to 400 meters.

Often used as an Ethernet cable replacement (point-to-point communication), it can also be used as an access point for several WLAN/Bluetooth nodes within range. In addition, it features easy configuration via push button or via web configuration pages.



#### ORDERING INFORMATION

Part No: AWB3000: Ethernet bridge via Bluetooth and WLAN Part No: AWB3010: Ethernet bridge via Bluetooth and WLAN (External antenna) Included components: Quick start guide, manuals. (Power supply not included)

Part No: AWB3300: Starterkit - 2 x Wireless Bridge, 2 x Power Supply (world) cabling, quick start quide

#### ACCESSORIES:

023040: Cable kit. 1.5m Ethernet cables M12/RJ45 and power supply (world). 024700: IP67 M12 connector kit for power and Ethernet, with screw terminals 024701: DIN clip with screws

024702: Replacement external antenna. Foldable, dual band. RPSMA connector

#### Wireless machine access over Bluetooth or WLAN

Anybus<sup>®</sup> Wireless Bolt<sup>™</sup> enables you to connect industrial devices to a wireless network. It is attached onto a cabinet or a machine to enable wireless access. Wireless transmission is made via Bluetooth, Bluetooth Low Energy or WLAN technology.

The Wireless Bolt gives you direct access to configure or troubleshoot your machinery with a range of 100 meters. It supports any TCP/IP- based Ethernet protocol such as EtherNet/IP.

Use your laptop, tablet or cell phone as the machine HMI (BYOD)

BYOD (Bring Your Own Device) means that you no longer need an expensive HMI. A machine operator or technician does not need to be physically located at the machine to gain access.

The Wireless Bolt is an all-in-one package featuring a connector, communication processor and integrated antenna in the same unit, with an exterior IP67 protection class. Regardless of the communication method you select, you have the same connector (2x9p Plug Connector) for both power and communication.



# ORDERING INFORMATION

Part No: AWB2000: Anybus Wireless Bolt - Bluetooth and WLAN Included components: 1x Bolt, Connector, Installation guide

Part No: AWB2300: Anybus Wireless Bolt Starterkit Included components: - 2 x Wireless Bolt, 2 x Power Supply (world) cabling, 2x Pre-wired cable harness for Power/Ethernet (RJ45), Installation guide

## HIGHLIGHTS

- · Eliminates expensive cabling
- Used in hard-to-reach locations Ideal for hazardous environments
- Bluetooth and WLAN 2.4 / 5 GHz
- Unique disturbance handling method
- Effective range upto 400 m
- Bridges any TCP/IP based Ethernet
- · Access point up to 7 clients
- Can be used for redundancy
- · Security features secure operation
- Encompass Partner Product

#### SPECIFICATIONS

Size (LxWxH)	91 x 66 x 36,2 mm
Oper. Temp Stor. Temp	-30 to +65°C -40 to +85 °C
Power	9-30 VDC +/-5% Cranking, 12V
Antenna	Internal: 2.4 GHZ, max 2dBi, 5 GHZ: max 0.5dBi External: Max 3dBl
Rating	IP65, Plastic PC/ABS
Mounting	2x Ø.4 screws on flat surface
Connectors	1x M12 for Ethernet 1x M12 for Power
Config	Push button, Web, AT Commands
Security	See web page
Certification	FCC47,ICES 003, ETSI R & TTE
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years



## HIGHLIGHTS

- Eliminates expensive HMI's
- · For easy config and maintenance
- · Improves operator safety
- · Ideal for hazardous environments
- Bluetooth and WLAN 2.4 / 5 GHz
- Unique disturbance handling method
- · Effective range up to 100 m
- · Bridges any TCP/IP based Ethernet
- · Access point up to 7 clients
- · Security features secure operation
- · Encompass Partner Product



Size	70 mm diameter
Oper. Temp Stor. Temp	-40 to +65°C -40 to +85 °C
Power	9-30 VDC +/-5% Cranking, 12V
Antenna	Internal
Rating	IP67 for top, IP21 inside
Mounting	M50 screw and nut
Connectors	1x M12 for Ethernet 1x M12 for Power
Housing	Plastic PBT/PBT re-inforced /PC-ABS
Config	Web page, AT commands
Security	See web page
Certification	FCC47,ICES 003, ETSI R & TTE
Certification	CE, ATEX, Haz.Loc, UL & cUL, RoHS
Guarantee	3 years

IXXAT<sup>®</sup> is well-known for CAN connectivity solutions. Today, the CAN, CAN FD and CANopen standards are widely used for communication within cars, medical automation, machines, marine vessels, and much

more.

Although CAN is mature and proven, it is used in many new installations because of low costs, flexibility, reliability and power efficiency benefits.

HMS's IXXAT products are also used to meet the strong demand for connecting CAN-based machinery to the Internet of Things. In addition to classic CAN, a range of new IXXAT products enable customers to master current and future machine-communication challenges involving the next-generation standard CAN FD, as well as industrial Ethernet systems such as EtherNet/IP.

> DID YOU KNOW THAT: Each year, about 1 billion CAN nodes (a connection point for a machine) are sold world-wide.

#### A CAN partner that you can trust!

"As a longtime CAN expert and founding member in CAN-in-Automation, we are a trusted partner when it comes to CAN technology and CAN products."

All

vou need for

CAN

Christian Schlegel Managing Director, IXXAT Business Unit

- Mobile access for Bluetooth<sup>®</sup> or USB



# **CAN Infrastructure**

#### **PRODUCT: IXXAT® Repeaters/Gateways**

IXXAT<sup>®</sup> infrastructure components for CAN consist of repeaters, bridges and gateways allowing for CAN/ CAN FD access over Ethernet.

- Cost savings through easier wiring and implementation of star/tree structures
- · Coupling of different network standards and devices, including wireless
- Increase of the system reliability and protection against overvoltage



#### PCIe, PCIe mini to EtherNet/IP

The IXXAT<sup>®</sup> INpact<sup>™</sup> EIP Slave PCIe is a versatile multi-network PC interface supporting all major Industrial Ethernet protocols.

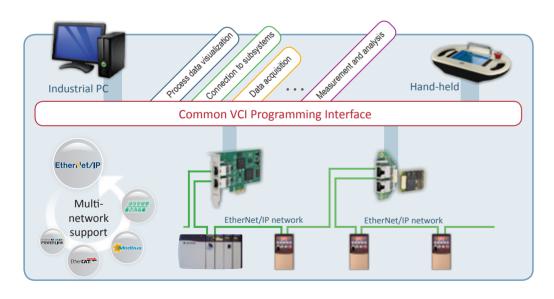
Pre-installed with the EtherNet/IP network protocol, it enables easy connection of PC-based Adapter applications to the EtherNet/IP network. It is ideal for industrial PC-based monitoring, configuration and analysis.



#### Connect your Industrial PCs to EtherNet/IP-based Logix PLCs

The IXXAT INpact offering is available in two versions with different interfaces. The first is a PCIe, including standard or low-profile slot-brackets. The second version, a PCIe Mini, is for devices with limited available space and mobile/handheld devices.

The INpact card comes with a comprehensive C-API based driver package for Windows, enabling simple and rapid development of customer-specific applications, and with drivers for Linux. Operating systems such as RTX, Intime, VxWorks and QNX are supported upon request.



## ORDERING INFORMATION

Part No: 1.01.0320.22110: INpact EtherNet/IP PCIe Standard Profile Part No: 1.01.0320.22120: INpact EtherNet/IP PCIe Low Profile Part No: 1.01.0320.22101: INpact EtherNet/IP PCIe Mini

Included components: IXXAT INpact PC board (Mini version with additional bus interface board and cable) EtherNet/IP firmware pre-installed, Windows, Linux, QNX and INtime driver software, Manual

#### HIGHLIGHTS Available in multiple form factors

- Common API for multi-networks
- Driver package for Windows/Linux
- · For real-time applications
- · EIP updates maintained by HMS
- Integrated Web server, Email client
- ODVA Conformance Tested
- Encompass Partner Product

Format	PCIe Standard/Low profile - 64x105 mm PCi Mini - 30x51x12mm
Oper. Temp Optional Mini	0 to +70°C -40 to +70 °C -40 to 60 °C
Power	via PCle (3.3V /12 VDC) Mini 3.3V only
Isolation	1500 Vrms
Consumption	Typ. 200 mA / 3.3V 120 mA / 12 VDC Mini - 600 mA / 3.3V
Weight	52 g - Mini 26 g
Connectors	2x RJ45 10/100 Mbit
EIP I/O Data	Total 1440 bytes IN and 1440 bytes OUT
EIP Config	via .EDS file
EIP DLR	Beacon-based
Certification	CE, FCC, RoHS
Guarantee	1 year

#### USB to CAN V2 / FD

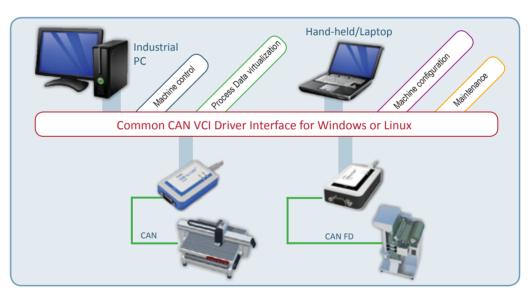
The IXXAT<sup>®</sup> USB-to-CAN V2 and USB-to-CAN FD is the perfect choice for monitoring a CAN/CAN FD network, for configuration and analysis applications as well as for PC based control applications.

These high-performance, low latency, active USB interfaces are available in different formats with support for CAN, CAN FD, and IXXAT's common driver package with higher layer APIs.

#### CAN adapters for usage with Industrial PCs and hand-held devices

By connecting over USB 2.0 Hi-Speed (480 MBit/sec), the USB-to-CAN interfaces achieve very high data throughput with minimum latency and low power consumption.

The USB-to-CAN adapters are all available with galvanic isolation and have up to 2 CAN high-speed channels. Additional versions available for Automotive applications.



W ORDERING INFORMATION

Part No: 1.01.0320.22110: USB-CAN V2 Compact - 1x CAN HS-port D-Sub9 Part No: 1.01.0320.22120: USB-CAN V2 Compact - 1x CAN HS-port RJ45 Part No: 1.01.0320.22101: USB-CAN V2 Pro - 2x CAN HS-port RJ45 Part No: 1.01.0320.22101: USB-CAN V2 Automotive - 2x CAN HS, 1x CAN LS, 1x LIN port RJ45

Part No: 1.01.0351.12001: USB-CAN FD Compact - 1x CAN HS, 1x CAN FD port D-Sub9 Part No: 1.01.0358.22012: USB-CAN FD Automotive - 2x CAN HS, 2x CAN FD, 1x LIN port RJ45

Included components: Manual, CAN driver VCI for Windows, Simple "canAnalyser Mini" can bus monitor. (2x RJ45 to DSUB9 adapter cable available with Pro & Automotive versions)





CAN

(COL)

- Available in multiple variations
- · Common Driver Interface
- Driver support for Windows/Linux
- Galvanically isolated
- Upto 2x CAN / CAN FD
- · Special versions for LIN/automotive
- Includes canAnalyser Mini



Size	80x50x22 mm (LxWxH)
Oper. Temp	-20 to +70 °C
Power supl. CAN FD	5V, max 500 mA 800 VDC/500V, AC for 1 min (both via USB)
Galv .lsol.	1 kV, 1 sec
PC bus interface	USB 2.0, Hi-speed
Microcontroller	32 bit
CAN controller CAN FD control	Internal; CAN 2.0 A/B IFI CAN_FD IP
CAN baudrate	10 kBit/s - 1 Mbit/s
CAN FD baudrate	500 to 10000 kbit/s data rate (pre-defined)
LIN baudrate	Max 20 kbit/s
Certification	CE, RoHS
Guarantee	1 year

#### **CAN Repeaters**

The IXXAT<sup>®</sup> CAN repeaters enable physical coupling of CAN and DeviceNet network segments. They improve the system reliability, allow setting up star and tree structures and reduce wiring costs.

The integrated galvanic isolation provides a built-in protection against overvoltage.



HIGHLIGHTS

· Cost savings by simpler wiring

Increased system reliability

Line protection up to 4 kV

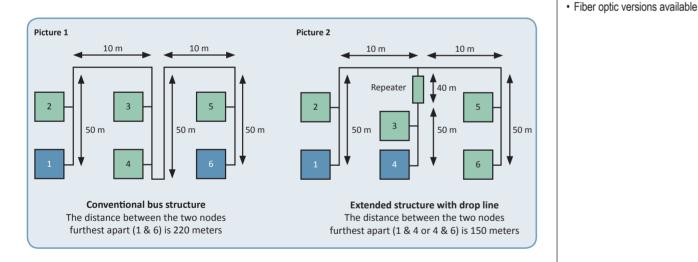
· No effects on real-time behaviour

· Easy connect via DIN-rail backbone

Easy set-up of tree and star topologies for CAN and DeviceNet systems

Using IXXAT Repeaters you can easily set up tree and star topologies without affecting system real-time behavior. In terms of transmission behavior, the architecture corresponds to a network that consists only of lines.

Depending on Repeater version or physical layer, typical signal delay is between 150-300 ns, which is equal to a 30-60 m line length. Data transmission is transparent so it can be used with any higher layer protocol (e.g, DeviceNet, CANopen) or customerspecific protocols.



#### ORDERING INFORMATION

Part No: 1.01.0067.44010: CAN-CR200 – Modular ISO 11898-2 CAN repeater with backbone bus Part No: 1.01.0067.44400: CAN-CR220 - ISO 11898-2 CAN repeater with 4 kV galvanic isolation Part No: 1.01.0068.45010: CAN-CR210/FO – Stackable converter from ISO 11898-2 to fiber optic cable

Included components: 1x CAN-CR2xx repeater, Manual

SPECIFICATIONS	
Size	22.5x100x115 mm
Oper. Temp	-20 to +70 °C
Power supl.	9-32 V DC, 1.5 W typ.
Galv .lsol.	up to 4,0 kV DC/ 1 Sec.
CAN baudrate	Up to 888 kbps
Certification	CE, FCC, RoHS
Guarantee	1 year

#### **CAN-Ethernet Bridge/Gateways**

IXXAT CAN@net NT can be used to enable network coupling over large distances via Ethernet as well as to connect PCs or embedded controllers to CAN/CAN FD systems via Ethernet.

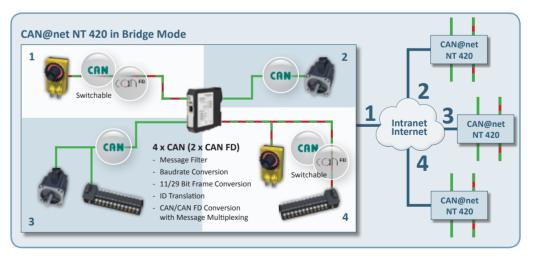
Configuration is made with an easy to use Windows tool — via USB or Ethernet. Configuration of filter, mapping, multiplexer or translation rules can be carried out very easily, without programming skills.

#### Highly flexible interconnection with three operation modes

The CAN@net NT is offered in two versions — CAN@net NT 200 with two classic CAN channels and CAN@net NT 420 with four CAN channels, of which two channels can be switched between CAN and CAN FD. Both devices offer three operation modes – PC interface, bridge and gateway.

In gateway mode the CAN@net NT can be directly accessed from e.g. Windows, Linux, VxWorks or QNX based systems as well as from embedded systems, by using a simple ASCII protocol over a standard TCP/IP socket.

In bridge mode, a CAN-Ethernet-CAN bridge can be implemented, with up to four independent CAN channels (2 x CAN FD) per device. The bridge allows data exchange over long distances via TCP/IP, using existing Ethernet infrastructures.





Part No: 1.01.0332.20000: CAN@net NT 200 - 2 CAN channels Part No: on request: CAN@net NT 420 - 4 CAN channels (2 switchable to CAN FD)

Included components: 1x CAN@net gateway, User manual, CD with CAN Gateway Configurator, CAN VCI driver for Windows, Mini USB cable.





• Easy coupling of CAN and CAN FD systems and devices

Bridging of large distances and easy remote access using Ethernet

- · Cost savings by simplified wiring
- Powerful filter, ID translation, mapping and multiplexing functionality
- · Windows configuration tool for easy configuration via USB or Fthernet



Size	115 x 99 x 23 mm
Oper. Temp	-40 to +85 °C
Power supl.	9 V to 36 V DC
Galv .lsol.	1 kV, 1 sec
Max. number of bus nodes	120
Current con- sumption	typically 110 mA (at 24 V input voltage)
CAN baudrate	5 to 1000 kBaud
CAN FD baudrate	5 to 8000 kBaud
Certification	CE, FCC, RoHS
Guarantee	1 year

# RENON®

# **REMOTE SOLUTIONS**

# **Our remote solutions will** take you much further

The market for remote access, control and monitoring of industrial machines and systems is still young, fragmented and difficult to assess, yet growing at a rapid pace. Remote connectivity is seen as a key element in emerging IIoT solutions - both within traditional automation solutions as well as in IoT-integration projects in many industrial verticals.

As the world leading brand in the Internet-based remote access area, eWON<sup>®</sup> encompasses solutions which have been built, established and optimized for more than 15 years.

Let HMS take your business further and guide you, from remote access to a far greater connected industrial world!

> DID YOU KNOW THAT: eWON remote solutions connect industrial equipment in over 150 countries. We have helped to save over 7 million kilometers of unneccessary travelling and almost 1 million kilos of CO, emissions.

#### Go remote — reduce your carbon footprint!

"With eWON remote solutions we add value by gathering and displaying KPIs and key parameters from machines, enabling improved uptime, service and performance. Another key factor is that we help reduce on-site travelling — we can assist you in reducing your company's carbon footprint significantly."

Serge Bassem, General Manager, eWON Business Unit

# **Remote Access**

#### **PRODUCT: eWON® Cosy**

Today, every machine builder recognizes the need to access machines and equipment in the field remotely in order to drastically reduce maintenance costs and optimize customers machine uptime.

- Remote troubleshoot/program PLCs
- Connect to your remote HMI
- Connect to a local webcam
- Support field technicians with commissioning

## **Remote Data**

#### **PRODUCT: eWON® Flexy**

Remote Data provides advanced data services including data collection from remote sites and alarm management.

- (alarms, KPI, set point, consumption, ...)
- Use or create your own remote HMI
- Use field data to create added-value services
- Access your machines remotely

# **Remote Management**

#### **PRODUCT: eWON® Netbiter**

Remote Management allows end-users/ facility managers to monitor and control their industrial assets online and to make better operational decisions.

- Manage multiple sites, equipment and users
- Visualize data from remote installations
- Manage alarms and events
- Analyze trends and performance



• Gather time-stamped machine data centrally

Argos

ewon

Talk 2



#### Stop travelling on site for support!

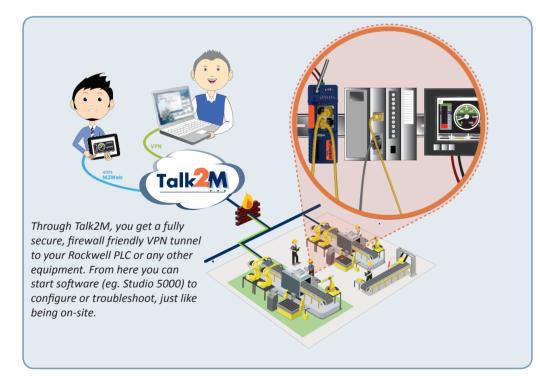
The eWON<sup>®</sup> Cosy<sup>™</sup> is an industrial VPN router designed to offer easy remote access, across the Internet, to PLCs, machines and installations on customer sites or in the field.

With the eWON Cosy, OEMs and System Integrators can configure Rockwell PLCs through Studio 5000<sup>®</sup>, troubleshoot machines remotely, all without going on site, drastically reducing operating costs and improving service and uptime.



#### Easy Remote Access to your Logix PLC, HMI, IPC, or IP Camera

The eWON Cosy is connected to the Talk2M server. The engineer uses the eCatcher client to log into the Talk2M account remotely, and selects the machine they want to connect to. A fully secure VPN tunnel is now set up between the engineer and the equipment. The engineer can then go live with any device connected to the eWON Cosy's LAN ports, from anywhere in the world 24/7.



#### ORDERING INFORMATION

Part No: EC61330: Industrial Router COSY131 WAN/LAN/USB Part No: EC6133C: Industrial Router COSY131 WAN/LAN/USB + Cellular 3G (antenna not incl.) Part No: EC6133D: Industrial Router COSY131 WAN/LAN/USB + WIFI (antenna incl.)

**Included components:** eWON Cosy 131, connectivity via Talk2M Free (Pro upgrade available), eCatcher Talk2M Remote Access software, Installation guide

#### HIGHLIGHTS

- · Firewall friendly outbound connection
- · Easy to use Wizard configuration
- Versions with Cellular + WiFi
- Secure VPN SSL tunnel
- Customer can enable or disable VPN access
- Audit trail and traceability
- LAN segregation + NAT 1:1
- 2 factor authentication
- Encompass Partner Product

## 

Size (HxDxW)	108 x 99 x 42 mm
Weight	191 g
Oper. Temp	-25 to 70 °C
Power supl.	12-24 VDC +/- 20%
Ethernet	4x10/100 Mbit/s (Configurable LAN/ WAN)
USB	USB 2.0
WiFi	802.11 b/g/n
Cellular	3G/GSM/GPRS
I/O ports	2 x DI, 1 x DO
SD card reader	All versions
Certification	CE, UL Listed, RoHS
Guarantee	2 years

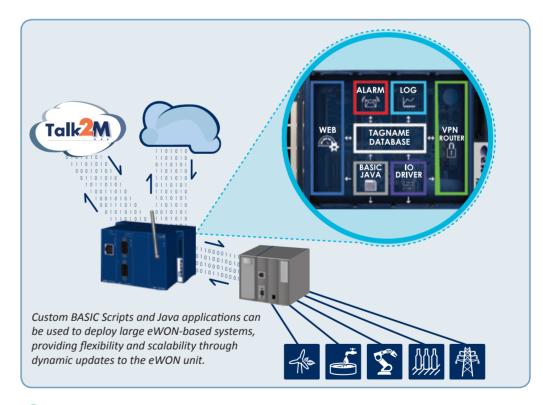
## Unlock new services with your machine data!

The eWON<sup>®</sup> Flexy<sup>™</sup> is the first industrial modular IOT router and data gateway designed for OEMs and system integrators.

The flexibility allows a user to link remote devices in an environment where communication technologies are constantly changing. It also allows universal communication with the most varied field equipment, regardless of the protocol used.

#### Activate your Flexy apps - your M2M application designed in minutes!

The Flexy 20x series includes routing and gateway capabilities between WAN, LAN, and RS232/422/485. It allows full remote access to devices connected to the LAN, serial, MPI, or USB ports of the Flexy. Main applications include data monitoring and collection, but the Flexy goes further by enabling you to create your own applications using BASIC scripting or Java.



#### ORDERING INFORMATION

Part No: Flexy201: Flexy 201 4x Ethernet switch Part No: Flexy202: Flexy 202 1x Ethernet + 1x serial Port Part No: Flexy203: Flexy 203 1x Ethernet + 1x MPI port (Extension cards available for Cellular, USB, WiFI, I/O...)

**Included components:** eWON Flexy 20x, connectivity via Talk2M Free (Pro upgrade available), eCatcher Talk2M Remote Access software, Installation guide





- Gather time-stamped machine data centrally (alarms, KPI, set point etc)
- Use or create your own remote HMI
- All major protocols embedded (incl. legacy) for data acquisition
- Collect data from the field
- · Create added-value services
- Open for 3rd party integration
- Stores up to 1M data points locally
- · Remotely access your machines

Size (HxDxW)	80 x 89 x 134 mm
Weight	500 g
Oper. Temp	-25 to 70 °C
Power supl.	12-24 VDC +/- 20%
Routing	WAN/LAN/Serial
Data logging	996.147 time stamped points
Flexy 201 ports	Switch 4x LAN 10/100 Mbit/s
Flexy 202 ports	1x RS232/422/485 1x LAN 10/100 Mbit/s
Flexy 203 ports	1x MPI/Profibus 1x LAN 10/100 Mbit/s
I/O ports	2 x DI, 1x DO
SD card reader	All versions
Certification	CE, CRU-US, RoHS, EN350576
Guarantee	2 years

#### Manage your installations online!

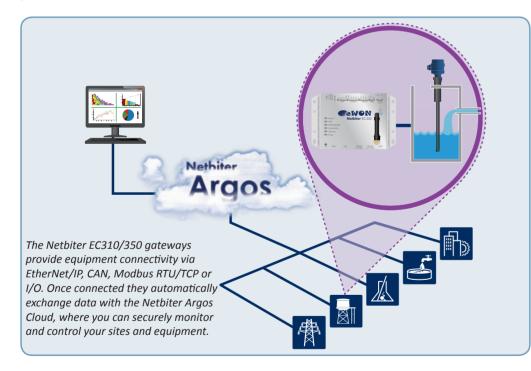
eWON<sup>®</sup> Netbiter<sup>®</sup> allows you to optimize the operational efficiency of your assets. With Netbiter, you have a way of staying on top of site equipment status and operations remotely.

Using visualization dashboards, you can track performance, get alarms, manage single or multiple users/sites, even integrate equipment data into your own systems using the Netbiter API.



Access your sites, installations and field equipment anytime, anywhere!

You connect a Netbiter gateway to your equipment. It then automatically starts to send encrypted data via the cellular network or Ethernet to the Netbiter Argos™ cloud. Netbiter Argos is where your site/equipment data is securely stored. You simply log in to Argos at www.netbiter.net to access your equipment via a regular PC, tablet, smartphone etc. You can also get alarms via email or SMS sent to yourself or service staff.



#### ORDERING INFORMATION

Part No: NB1007: Netbiter EC310 - Ethernet Part No: NB1005: Netbiter EC350 - Ethernet + 3G (Antenna included)

Included components: Netbiter EC3xx, Netbiter Argos Cloud connectivity (View & Control package, 1 User, 1 Site, incl. Remote Access mode) 2x pluggable connectors, Installation guide.

#### HIGHLIGHTS

- · Firewall friendly outbound connection
- Easy to use Wizard configuration
- Versions with Cellular + WiFi
- Secure VPN SSL tunnel
- Customer can enable or disable VPN access
- Audit trail and traceability
- LAN segregation + NAT 1:1
- 2 factor authentication
- ODVA Conformance Tested
- Encompass Partner Product

## SPECIFICATIONS

Size (LxWxH)	92 x 135 x 27 mm
Oper. Temp	-45 to 65 °C
Power supl.	9-32 VDC +/- 20%
Ethernet Ports	1x LAN 1x WAN 10/100 Mbit/s
Relay Output	1
I/O ports	2 DI, 4 AO
Serial Ports	1x RS-232 1x RS485
Cellular	3G 5-band/GSM/ GPRS
I/O ports	2 x DI, 1 x DO
Protocol support	CAN, EIP, Modbus TCP / RTU
Housing/Mount	Metal, Wall or DIN
Certification	CE, UL, cUL RoHS,
Guarantee	3 years

# Work with the world's no.1 choice for industrial communication

#### Facts about HMS

- Operations in 13 countries.
- Customers in more than 50 countries.

**HMS** Connecting Devices

- Head office in Halmstad, Sweden.
- Founded in 1988.
- 500 employees.
- Listed on NASDAQ-OMX Nordic Exchange in Stockholm.

Our products connect millions of devices around the world and enable our customers to widen their market and improve their business. HMS' long experience, large installed base, and wide market coverage, makes us the undisputed market leader of our field.



## Partnership with HMS is for the long-term

We work closely with our customers to offer expertise and experience. We help you broaden your market and stay up-to-date when it comes to network connectivity. Many of our customers regard HMS as their internal development department for industrial communication.

Get in touch with us, and we'll tell you more about how to get connected.

Staffan Dahlström Chief Executive Officer, HMS

#### Network connectivity expertise at your service

Trends such as the Internet of Things and Industry 4.0 require more and more industrial machines to become networked. HMS products, solutions and knowhow enable industrial machinery to get connected to systems and networks and are therefore a must-have for any industrial company wishing to operate globally.



#### **HMS Industrial Networks**

Through the Anybus<sup>®</sup>, IXXAT<sup>®</sup> and eWON<sup>®</sup> brands and products, HMS Industrial Networks provides reliable solutions for industrial communication and remote connectivity. HMS' knowledgeable staff, distributors and partners in over 50 countries worldwide, are there to help you increase your business productivity and performance, while lowering cost and time to market.



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