

The Anybus X-gateway for Modbus-TCP makes it possible to connect Modbus-TCP devices to almost any other PLC system.

The X-gateway provides Modbus-TCP client (master) connectivity to all major fieldbus and industrial Ethernet networks and is easily configured and installed. No programming required!

### Typical Industries



### In-short

Every product in the Anybus X-gateway Modbus-TCP family is equipped with a Modbus-TCP Client interface. The second network can be selected from the list below:

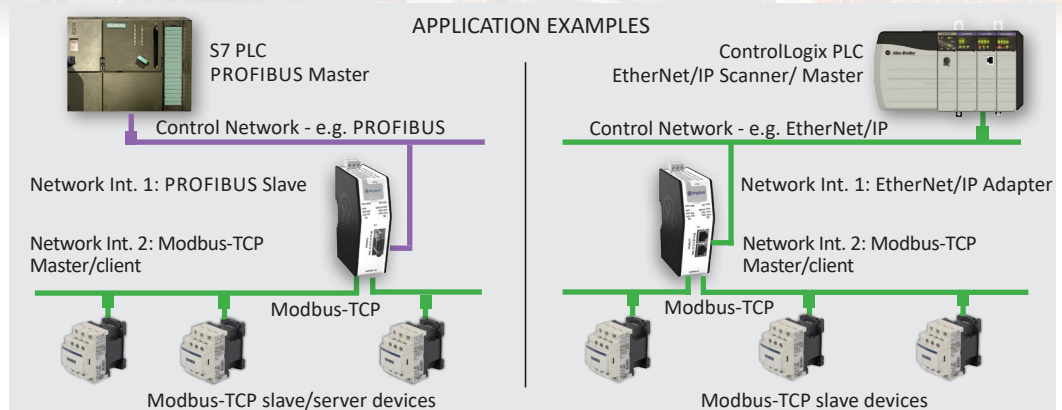
Network:	PartNo:
CANopen Slave	AB9004
CC-Link Slave	AB9009
ControlNet Adapter	AB9003
DeviceNet Adapter	AB9002
EtherCAT Slave	AB9000
EtherNet/IP Adapter	AB9006
Modbus RTU Slave	AB9005
Modbus-TCP Server	AB9008
PROFIBUS Slave	AB9001
PROFINET-IO Device	AB9007

Accessories:	PartNo:
SD memory card Industrial grade	021530
Wall Mount Option for increased vibration protection	021520



HMS provides a full 3 year product guarantee

### APPLICATION EXAMPLES



Anybus X-gateway Modbus-TCP acts as translator between a Modbus-TCP network and another industrial network. The primary focus is the fast transfer of cyclic I/O data between Modbus-TCP and the other chosen network. The new X-gateway design meets the industrial demands for functionality, robustness, size, durability and most importantly ease of use.

### Features and benefits

- Connects Modbus-TCP slave devices to other fieldbus and Industrial Ethernet networks
- Provides Modbus-TCP client/master functionality on one side, and fieldbus/Ethernet slave functionality on the other side
- Allows for fast transparent transfer of I/O data between two networks. High performance, short throughput delay, approximately 5 ms
- Cyclic and acyclic data
- SD memory card slot for backup, configuration and Easy Replacement™
- Dual Port switched Ethernet allows daisy chaining on all Ethernet ports
- Robust design for optimized cabling, DIN-rail or wall mount options
- Easy web based configuration tool. No programming or scripting required
- Live list which provides information to the uplink PLC about the status of connected Modbus-TCP server devices and configured transactions

### Easy configuration

Configuration is made over Ethernet via a built-in web page. The configuration page is used to configure Ethernet TCP/IP settings, Modbus-TCP client configuration and I/O data register mapping between Modbus-TCP and the chosen network.

The uplink fieldbus or Ethernet slave interface to the PLC is configured with a standard device description file (GSD/EDS) in the PLC engineering tool.

### Easy Replacement™

The X-gateway is equipped with an SD memory card slot for Easy Replacement and with configuration copy and backup. If required field replacement can be made without connecting a PC and with no specialist help, by simply moving the SD memory card.

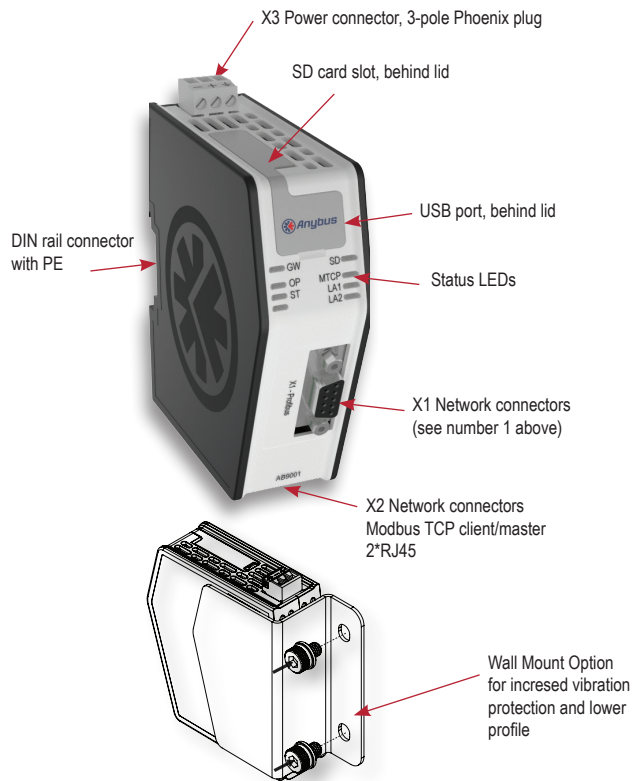
## TECHNICAL SPECIFICATIONS

X-gateway Modbus-TCP Client/Master		
Max amount of slaves	64	
Network connector	2*RJ45	
Baud rate	10/100 Mbit/s	
I/O data	256 bytes IN/OUT	
Supported Modbus-TCP functions	1, 2, 3, 4, 5, 6, 15, 16, 23	
Technical Details		Standard
Weight	160 g, 0.35 lb	
Dimensions (L*W*H)	110*35*101 mm, 4,33*1,38*3,98"	
Protection class	IP20, NEMA rating 1	
Enclosure material	PC ABS, UL 94 VO	
Installation position	Horizontal	
Mounting	DIN rail (35*7,5/15) or Wall Mount	EN 50022
Certifications		
UL	File number: E203225	UL 508 Ind. Cont. Eq.
Hazardous Locations	CLASS 1, DIVISION 2, GROUPS A, B, C AND D, T4	ANSI/ISA-12.12.01-2000
ATEX	Zone 2, Cat 3	EN 60079-15 EN 60079-11
CE	2004/108/EC	EN 61000-6-4 EN 61000-6-2
Electrical Characteristics		
Power	24 VDC +/- 10 %	
Current consumption	Typical 150 mA @ 24 V	
Hardware Characteristics		
Reverse voltage protection	Yes	
Short circuit protection	Yes	
Galvanic isolation on subnetwork	Yes	
Environmental Characteristics		
Operating temp	-25 to 70 °C, -13 to 158 °F	IEC 60068-2-1 IEC 60068-2-2
Storage temp	-40 to 85 °C, -40 to 185 °F	IEC 60068-2-1 IEC 60068-2-2
Relative Humidity	5-95 % non condensing	
Installation altitude	Up to 2 000 m	
Immunity and Emission for Industrial Environment		
Electrostatic discharge	+/- 4 kV	EN 61000-4-2
Electromagnetic RF fields	10 V/m 80 MHz - 1 GHz 3 V/m 1,4 GHz - 2,0 GHz 1 V/m 2,0 GHz - 2,7 GHz	EN 61000-4-3
Fast Transients	+/- 1 kV	EN 61000-4-4
Surge protection	+/- 1 kV	EN 61000-4-5
RF conducted interference	10 V/rms	
Emission (at 10 m)	40 dB 30 MHz - 230 MHz 47 dB 30 MHz - 1 GHz	EN 55016-2-3
Insulation, transient voltage (not for personal safety)		
Power to PE	1 500 V	EN 60950-1
Power to X1	2 500 V	EN 60950-1
Power to X2	1 500 V	EN 60950-1
X2 to PE	500 V	EN 60950-1
X2 Shields to PE	500 V	EN 60950-1
X2 to X2 Shields	500 V	EN 60950-1
X2.1 to X2.2	500 V	EN 60950-1
Single Pack Accessories		
• Resource CD • Installation sheet		

## NETWORK SPECIFIC FEATURES

1 = Network connector, 2 = Baud rate,  
3 = I/O data, 4 = Other

SLAVE / ADAPTER / SERVER / DEVICE	
<b>CANopen</b>	1 = DSUB9M 2 = Up to 1 Mbit/s 3 = 256 byte IN/OUT 4 = LSS and Auto baud
<b>CC-Link</b>	1 = 5*5p; 5.08 Phoenix Plug 2 = 156 kbit/s to 10 Mbit/s 3 = 256 byte IN/OUT 4 = CC-Link version 2.0 with extended data
<b>ControlNet</b>	1 = 2*BNC Coax 2 = 5 Mbit/s 3 = 256 byte IN/OUT 4 = CIP Parameter Object Support
<b>DeviceNet</b>	1 = 5*5p; 5.08 Phoenix Plug 2 = 125-500 kbit/s 3 = 256 byte IN/OUT 4 = Bit-strobed, Change-of-state or Cyclic I/O
<b>EtherCAT - 2 port</b>	1 = 2*RJ45 2 = 100 Mbit/s 3 = 256 byte IN/OUT 4 = CANopen over EtherCAT (COE)
<b>EtherNet/IP - 2 port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 256 byte IN/OUT 4 = Device Level Ring (DLR)
<b>Modbus RTU</b>	1 = DSUB9F 2 = Up to 115,2 kbit/s 3 = 256 byte IN/OUT 4 = RTU (8bit) and ASCII (7bit) support
<b>Modbus TCP - 2 port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 256 byte IN/OUT 4 = Up to 4 simultaneous connections
<b>PROFIBUS</b>	1 = DSUB9F 2 = Up to 12 Mbit/s 3 = 256 IN/OUT 4 = I&M functions
<b>PROFINET IO - 2 port</b>	1 = RJ45 2 = 100 Mbit/s 3 = 256 byte IN/OUT 4 = SNMP with support for the mibs: LLDP and MIB-II



## HMS Industrial Networks – Worldwide

### HMS - Sweden (HQ)

Tel : +46 35 17 29 00 (Halmstad HQ)  
Tel: +46 35 17 29 24 (Västerås office)  
E-mail: sales@hms-networks.com

### HMS - Germany

Tel: +49 721 989777-000  
E-mail: ge-sales@hms-networks.com

### HMS - Japan

Tel: +81 45 478 5340  
E-mail: jp-sales@hms-networks.com

### HMS - United States

Tel: +1 312 829 0601  
E-mail: us-sales@hms-networks.com

### HMS - China

Tel : +86 010 8532 3183  
E-mail: cn-sales@hms-networks.com

### HMS - India

Tel: +91 83800 66578  
E-mail: in-sales@hms-networks.com

### HMS - Switzerland

Tel: +41 61 511342-0  
E-mail: sales@hms-networks.ch

### HMS - France

Tel: +33 368 368 034 (Mulhouse office)  
E-mail: fr-sales@hms-networks.com

### HMS - Italy

Tel : +39 039 59662 27  
E-mail: it-sales@hms-networks.com

### HMS - UK

Tel: +44 1926 405599  
E-mail: uk-sales@hms-networks.com

Anybus® is a registered trademark of HMS Industrial Networks AB, Sweden, USA, Germany and other countries. Other marks and words belong to their respective companies. All other product or service names mentioned in this document are trademarks of their respective companies.

Part No: MMA202 Version 5 06/2019 - © HMS Industrial Networks - All rights reserved - HMS reserves the right to make modifications without prior notice.

