

# X-gateway™ CANopen®

With the Anybus X-gateway CANopen, HMS makes it possible to integrate CANopen devices into almost any other PLC system and their supported networks. The X-gateway CANopen series provide CANopen Master (Manager) /Slave connectivity to all popular fieldbus and industrial Ethernet networks. The fact that Anybus X-gateways combine high reliability and flexibility make them indispensable connectivity tools for system integrators and plant operators within all industries.



## Typical Industries



## In-short

Every product in of the Anybus X-gateway CANopen family is equipped with a CANopen Master (Manager) interface. The second network interface can be selected from the list below:

Network:	PartNo:
CANopen	AB7304
ControlNet	AB7303
DeviceNet	AB7302
EtherCAT	AB7300
EtherNet/IP 2-port	AB7306
Modbus RTU	AB7305
Modbus TCP 2-port	AB7308
Profibus	AB7301
Profinet IO	AB7307
Profinet IRT 2-port	AB7309

## Accessories:

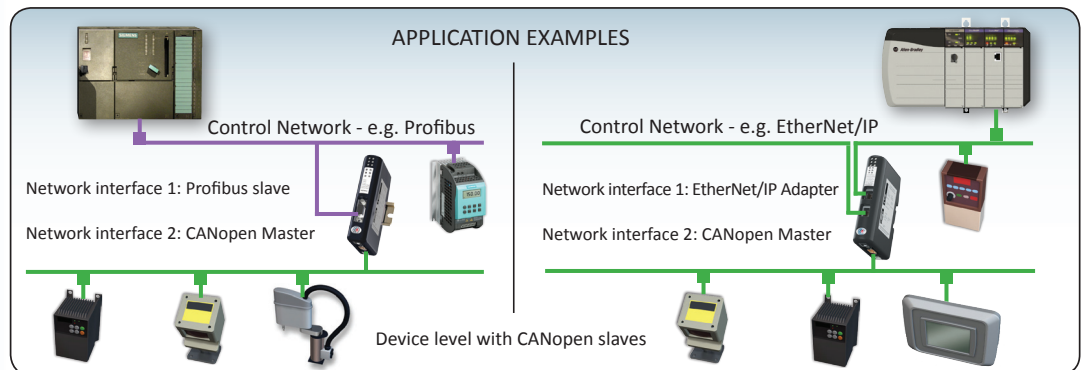
A CANopen-to-USB configuration adapter including software and documentation on CD can be ordered separately.

CANopen  
Configuration Pack 021370



HMS provides a full 3 year product guarantee

## APPLICATION EXAMPLES



The Anybus X-gateway CANopen family act as intelligent links between two industrial networks. X-gateway CANopen combines simplicity and usability with industrial robustness, making communication across different industrial network types easy and reliable. The X-gateways are easily integrated into any kind of industrial automation system, ensuring a seamless information flow between CANopen and 10 other fieldbus / Ethernet networks.

## Features and Benefits

- Provides CANopen Master or Slave functionality on one side, and fieldbus/Ethernet slave functionality on the other side
- Allows transparent transfer of I/O data between CANopen and another network
- CANopen master functionality allows connection of up to 126 CANopen slaves
- Dual port Ethernet with switch functionality for EtherNet/IP, Modbus-TCP and Profinet IRT versions
- Ethernet versions with IT functions such as dynamic Web server, supporting downloadable customer specific web pages
- CANopen NMT Master and Configuration Manager functionality

## CANopen Configuration

The X-gateway CANopen can be configured with the "CANopen Configuration Manager" which is included in the price of the X-gateway and can be downloaded from [www.anybus.com](http://www.anybus.com).

The PC connect to the CANopen network via a USB-CAN adapter (ordered separately)

In addition, any standard CANopen configuration tool can be used to configure the CANopen interface.

The uplink fieldbus or Ethernet slave interface is configured with a standard device description file (GSD/EDS) and the standard engineering tool of the PLC. No programming required.

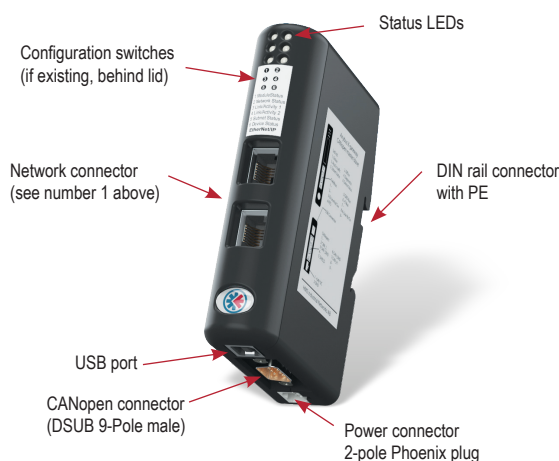
## TECHNICAL SPECIFICATIONS

X-gateway CANopen		
Amount of Master (manager)	126	
CANopen network connector	DSUB9M	
Baud rate	Up to 1 Mbit/s	
I/O data	128 PDOs Receive/128 PDOs Transmit, 510 bytes IN/OUT	
Extras	CANopen specification DS301 v4.0.2	
Technical Details		Standard
Weight	150 g, 0,33 lb	
Dimensions (L*W*H)	120*75*27 mm, 4,72*2,95*1,06"	
Protection class	IP20, NEMA rating 1	
Enclosure material	PC ABS, UL 94	
Installation position	Any	
Mounting	DIN rail (35*7,5/15)	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 2	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	
Hardware Characteristics		
Reverse voltage protection	Yes	
Short circuit protection	Yes	
Galvanic isolation on subnetwork	Yes	
Environmental Characteristics		
Operating temp	-25 to 55 °C, -13 to 131 °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	IEC 60068-2-30
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 Vrms	EN 61000-4-6
Emission (at 10 m)	40 dB 30 MHz - 230 MHz 47 dB 30 MHz - 1 GHz	EN 55016-2-3
Single Pack Accessories		
• Resource CD • Installation sheet • DSUB with screw terminals for subnetwork		

## 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 = 510 byte IN/OUT 4 = Supports profile CIA DS301 V4.02
<b>ControlNet</b>	1 = 2*BNC Coax + RJ45 (NAP) 2 = 5 Mbit/s 3 = 450 byte IN/OUT 4 = Media redundancy support
<b>DeviceNet</b>	1 = 5*5p; 5.08 Phoenix Plug 2 = 125-500 kbit/s 3 = 510 byte IN/OUT 4 = Unconnected Message Manager
<b>EtherCAT - 2 port</b>	1 = 2*RJ45 2 = 100 Mbit/s 3 = 510 byte IN/OUT 4 = DS301 V4.02 compliant
<b>EtherNet/IP - 2 port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 510 byte IN/OUT 4 = Device Level Ring (DLR)
<b>Modbus RTU</b>	1 = DSUB9F 2 = 1,2-57,6 kbit/s 3 = 510 byte IN/OUT 4 = RS232 and RS485
<b>Modbus TCP - 2 port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 510 byte IN/OUT 4 = Security framework
<b>Profibus</b>	1 = DSUB9F 2 = Up to 12 Mbit/s 3 = 244 IN/OUT (328 total) 4 = Profibus DP (IEC 61158)
<b>Profinet IO</b>	1 = RJ45 2 = 100 Mbit/s 3 = 510 byte IN/OUT 4 = RT Communication and Cyclic data exchange
<b>Profinet IRT - 2 port</b>	1 = 2*RJ45 2 = 100 Mbit/s 3 = 218 byte IN/OUT 4 = RT and IRT Communication



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