Anybus®

X-gateway™

Industrial gateways/bridges designed to connect any TWO industrial networks

- ▶ Profibus
- ▶ Profinet IO
- ▶ DeviceNet
- ▶ EtherNet/IP
- ▶ ControlNet
- ▶ CANopen
- ▶ CC-Link
- ▶ EtherCAT
- ▶ AS-Interface
- ▶ Modbus Plus
- ▶ Modbus-RTU
- ▶ FIPIO
- ▶ Interbus

Connect between almost any TWO industrial networks. Take a closer look at the Anybus X-gateway family. More than 170 versions are available!

The Anybus X-gateway family is a product line consisting of over 170 different products aimed to connect almost every possible combination of two industrial networks. The product family supports 17 different fieldbus networks such as Profibus, DeviceNet, CANopen and CC-Link as well as many industrial Ethernet versions. The Anybus X-gateways are designed for use in industrial automation plants where increasingly many different industrial networks are used. The X-gateways help system integrators to easily interconnect between two networks enabling transparent information flow throughout the entire plant.

Easy setup without any programming!

The Anybus X-gateways are designed for use in harsh industrial environments featuring standard DIN rail mounting, IP 20 rating and 24 Volt DC power supply. The X-gateways are intelligent stand alone devices supporting fanless operation and industrial operating temperature range. The design is based upon two embedded Anybus communication modules and one additional gateway processor. Thanks to the wide range of Anybus-S slave and Anybus-M master modules, more than 170 X-gateway combinations are available. No programming is needed and the setup is done in a few minutes. Simply choose the gateway version that supports the two networks you want to connect. For all possible network combinations, there is one separate gateway. This gives you a flexible and versatile solution that is based on proven Anybus technology.

I/O data transfer

The X-gateways primarily focus on the transfer of cyclic I/O data between two networks. This can either be a slave-slave combination or a master-slave combination. During the setup of the gateway, the user simply selects the amount of I/O to be transferred between network 1 and network 2. Since all industrial networks support a different amount of I/O data, the network with the least amount of I/O data determines how much data can be transferred in each case. The transfer time between the 2 networks is typically 10-15ms.

Web and IT functionality for all Ethernet versions

The Anybus X-gateway family has support for the industrial Ethernet protocols Modbus-TCP, EtherNet/IP, Profinet & EtherCAT. Most Ethernet versions feature additional IT-functions such as, a dynamic web server with support for SSI-scripts, Flash file system and FTP-server.

Bridging between PLC brands

With over 170 gateways versions available the X-gateways can bring together the network worlds of Siemens, Rockwell, Schneider, Mitsubishi, Omron, GE-Fanuc, Hitachi, Bosch, Moeller, B&R, Beckhoff and many more.

Connecting fieldbusses with Ethernet

As HMS supports all major fieldbus and industrial Ethernet standards, the X-gateways are the perfect solution to integrate existing fieldbus installations into modern industrial Ethernet networks.

Easy Configuration

All X-gateways are pre-configured for 20 byte I/O. For this case, no additional configuration is necessary. For larger I/O sizes the X-gateway is configured through its serial configuration interface

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WHY USE X-GATEWAYS?

- Simple way to transmit I/O data between any two industrial networks

- Instant connectivity - no programming

- Robust stand alone product for harsh industrial environments

- Over 170 possible combinations including master (scanner, client, controller), and slave (adapter, server, device) functionality

- Tailor made for brand labelling and customization

Anybus®
X-GATEWAY

Available combinations supporting:

Profibus
Profinet
DeviceNet
EtherNet/IP
ControlNet
CANopen
CC-Link
Interbus
Lonworks
AS-Interface
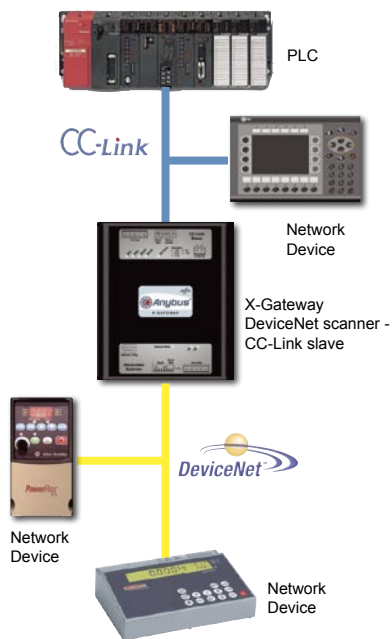EtherCAT
Modbus-TCP
Modbus Plus
Modbus RTU
FIPIO
J1939

LED indicators

Example: Network 1
DeviceNet scanner interface

DeviceNet Scanner

DIN-Rail mounting

Profibus Slave

Gateway Config

Node Address

Gateway Status — Acyclic, Online, Offline, Diagnostics

Example: Network 2
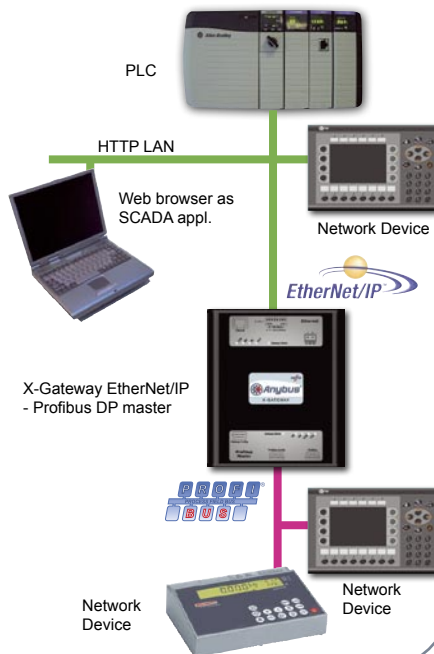Profibus slave interface

Typical uses within a factory network

FIELDBUS TO FIELDBUS

In this example, the X-gateway is a slave on the CC-Link network and a master/scanner on the DeviceNet network

PLC

CC-Link

Network Device

X-Gateway
DeviceNet scanner -
CC-Link slave

DeviceNet

Network Device

Network Device

FIELDBUS TO ETHERNET

In this example, the X-gateway is a slave/ adapter on the EtherNet/IP network and a Profibus-DP master on the Profibus network

PLC

HTTP LAN

Web browser as SCADA appl.

Network Device

EtherNet/IP

X-Gateway EtherNet/IP - Profibus DP master

Network Device

Network Device

	EtherNet/IP adapter	Modbus-TCP slave	Profinet IO device	EtherCAT slave	Profibus slave	DeviceNet adapter	ControlNet adapter	FIPIO slave	Interbus slave	Intebus FO slave	CANopen slave	Modbus-RTU slave	Modbus Plus slave	CC-Link slave	Lonworks slave	Modbus-RTU master	J1939
	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No	Part No
Profibus master	AB7800	AB7629	AB7646	AB7696	AB7801	AB7802	AB7803	AB7804	AB7805	AB7806	AB7807	AB7808	AB7809	AB7810	N/A	N/A	N/A
DeviceNet scanner	AB7607	AB7630	AB7647	AB7697	AB7663	AB7811	AB7812	AB7813	AB7814	AB7815	AB7816	AB7817	AB7818	AB7819	N/A	N/A	N/A
AS-Interface master	AB7820	AB7631	AB7648	AB7698	AB7821	AB7822	AB7823	AB7824	AB7825	AB7826	AB7827	AB7828	AB7829	AB7830	N/A	N/A	N/A
EtherNet/IP scanner	AB7668	AB7669	AB7670	AB7699	AB7671	AB7672	AB7673	AB7674	AB7675	AB7676	AB7677	AB7678	AB7679	AB7680	N/A	N/A	N/A
EtherNet/IP adapter	AB7831	AB7632	AB7649	AB7682	AB7832	AB7833	AB7834	AB7835	AB7836	AB7837	AB7838	AB7839	AB7840	AB7841	AB7842	AB7007	AB7665
Modbus-TCP slave	AB7632	AB7633	AB7650	AB7901	AB7634	AB7635	AB7636	AB7637	AB7638	AB7639	AB7640	AB7641	AB7642	AB7643	AB7644	AB7702	AB7665
Profinet IO device	AB7649	AB7650	AB7651	AB7684	AB7652	AB7653	AB7654	AB7655	AB7656	AB7657	AB7658	AB7659	AB7660	AB7661	AB7662	AB7013	N/A
EtherCAT slave	AB7682	AB7901	AB7684	AB7900	AB7685	AB7686	AB7687	AB7688	AB7689	AB7690	AB7691	AB7692	AB7693	AB7694	AB7695	AB7061	N/A
Profibus slave	AB7832	AB7634	AB7652	AB7685	AB7843	AB7844	AB7845	AB7846	AB7847	AB7848	AB7849	AB7850	AB7851	AB7852	AB7853	AB7000	N/A
DeviceNet adapter	AB7833	AB7635	AB7653	AB7686	AB7844	AB7854	AB7855	AB7856	AB7857	AB7858	AB7859	AB7860	AB7861	AB7862	AB7863	AB7001	N/A
ControlNet adapter	AB7834	AB7636	AB7654	AB7687	AB7845	AB7855	AB7864	AB7865	AB7866	AB7867	AB7868	AB7869	AB7870	AB7871	AB7872	AB7006	N/A
FIPIO slave	AB7835	AB7637	AB7655	AB7688	AB7846	AB7856	AB7865	AB7873	AB7874	AB7875	AB7876	AB7877	AB7878	AB7879	AB7880	AB7011	N/A
Interbus slave	AB7836	AB7638	AB7656	AB7689	AB7847	AB7857	AB7866	AB7874	AB7881	AB7882	AB7883	AB7884	AB7885	AB7886	AB7887	AB7012	N/A
Interbus F.O slave	AB7837	AB7639	AB7657	AB7690	AB7848	AB7858	AB7867	AB7875	AB7882	AB7888	AB7889	AB7890	AB7891	AB7892	AB7893	N/A	N/A
CANopen slave	AB7838	AB7640	AB7658	AB7691	AB7849	AB7859	AB7868	AB7876	AB7883	AB7889	AB7894	AB7895	AB7896	AB7897	AB7898	AB7003	N/A
Modbus-RTU Slave	AB7839	AB7641	AB7659	AB7692	AB7850	AB7860	AB7869	AB7877	AB7884	AB7890	AB7895	AB7899	AB7620	AB7621	AB7009	AB7010	AB7612
Modbus Plus slave	AB7840	AB7642	AB7660	AB7693	AB7851	AB7861	AB7870	AB7878	AB7885	AB7891	AB7896	AB7620	AB7623	AB7624	AB7625	AB7002	N/A
CC-Link slave	AB7841	AB7643	AB7661	AB7694	AB7852	AB7862	AB7871	AB7879	AB7886	AB7892	AB7897	AB7621	AB7624	AB7626	AB7627	AB7008	N/A
Lonworks slave	AB7842	AB7644	AB7662	AB7695	AB7853	AB7863	AB7872	AB7880	AB7887	AB7893	AB7898	AB7009	AB7625	AB7627	AB7628	N/A	N/A
Modbus-RTU master	AB7007	AB7702	AB7013	AB7061	AB7000	AB7001	AB7006	AB7011	AB7012	N/A	AB7003	AB7010	AB7002	AB7008	N/A	N/A	N/A
J1939	AB7665	AB7665	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB7612	N/A	N/A	N/A	N/A	N/A

Customized versions for specific requirements possible - Contact your nearest HMS office

About HMS

HMS Industrial Networks is the leading independent supplier of network technology for automation devices. HMS develops and manufactures solutions for interfacing automation devices to industrial networks.

Development and manufacturing takes place at the head office in Halmstad, Sweden. Local sales and development support for device manufacturers is provided by the branch offices in Chicago, Beijing, Karlsruhe, Milan, Mulhouse and Tokyo and by a global distrbution network spanning 30 countries. HMS employs 155 persons of which 35 in R&D and reported sales of €30 million in 2007. HMS is a public listed company on the OMX Nordic Exchange in Stockholm in the category Small Cap, Information Technology. ISIN-code: SE0002136242

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