X-gateway™

The Anybus X-gateway family consists of over 200 gateways which connect any two industrial networks.

The robust Anybus X-gateways allow system integrators to easily transfer I/O data between devices on two different PLC systems and networks, enabling a consistent information flow throughout the entire plant.

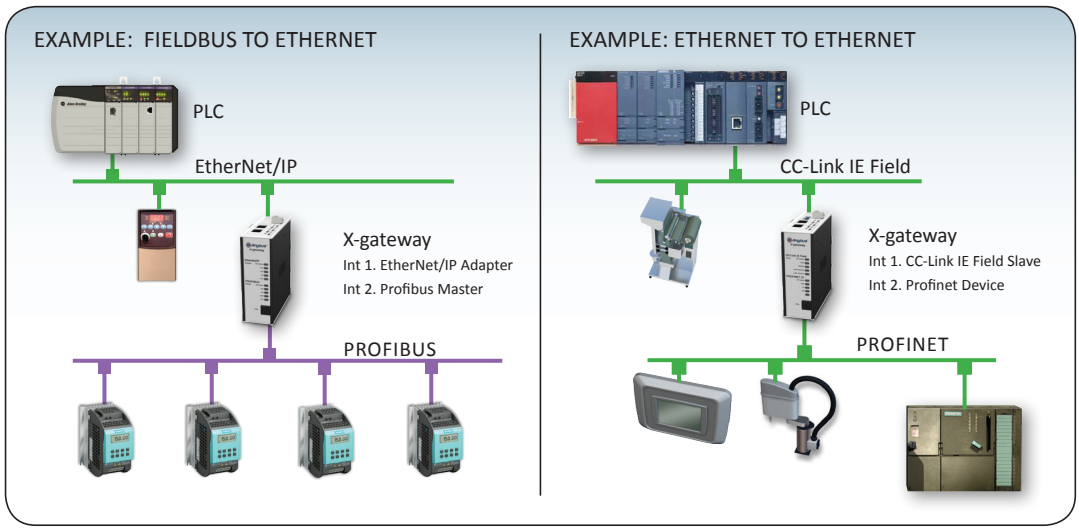
Typical Industries

Master versions supporting:
AS-Interface
DeviceNet
EtherNet/IP
PROFIBUS

Slave versions supporting:
CANopen
CC-Link
CC-Link IE Field
ControlNet
DeviceNet
EtherCAT
EtherNet/IP
FIPIO
Interbus RS485 + Fiber Optic
J1939*
LonWorks
Modbus Plus
Modbus RTU
Modbus-TCP
POWERLINK
PROFIBUS
PROFINET IO
PROFINET IRT Copper + Fibre Optic

Accessories:
Extra Wide DIN-clip for flat mounting - order number SP1784

*available in a different formfactor housing



Features and Benefits

- Any easy way to transmit I/O data between any two industrial networks
- Over 200 different network combinations (master, scanner, slave, adapter, I/O device, server)
- Connects different PLC systems (Siemens, Rockwell, Schneider, Mitsubishi, Omron, Beckhoff etc)
- I/O data transfer with average throughput between networks of 10 - 15 ms
- Additional parameter data supported (depending on network combination)
- Optional control and status information added to the I/O data for diagnostic purposes
- Included Anybus OPC server for extended functionality with Ethernet versions
- Anybus master configuration tool included free of charge with a Profibus, DeviceNet or EtherNet/IP Master/Scanner
- Robust stand-alone housing with CE and UL certifications
- Global free technical support and consultancy
- See www.anybus.com for application notes and instruction videos on how to configure the X-gateways

Easy Configuration

No programming is needed to set up the X-gateway.

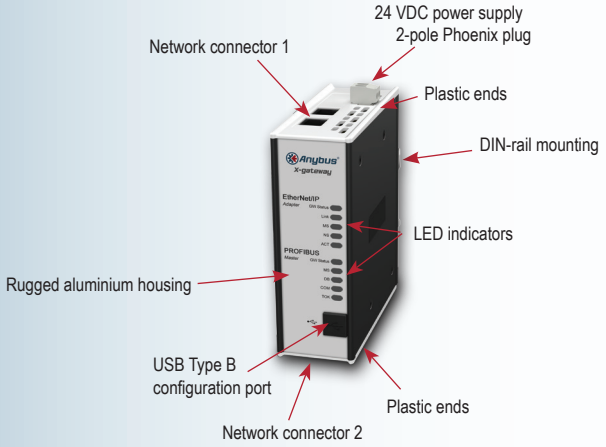
The configuration is made using the Anybus Configuration Manager which is included in the product. You install this Windows tool on your PC and connect the included USB cable to the configuration port of the X-gateway. The Anybus Configuration Manager X-gateway is available at www.anybus.com

The easy-to-use Anybus Configuration Manager X-gateway allows you to define the I/O data sizes on each network side and to define the data mapping and separation between cyclic I/O data and parameter data.

HMS provides a full 3 year product guarantee

TECHNICAL SPECIFICATIONS

Technical Details		Standard
Weight	400 g, 0,880 lb	
Dimensions (L•W•H)	114•44•127 mm, 4,49•1,73•5,00"	
Protection class	IP20, NEMA rating 1	
Enclosure material	Aluminium and plastic	
Installation position	Vertical position	
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	ISA 12.12.01
ATEX	Zone 2, Cat 2	EN 60079-0:2012+A11:2013 EN 60079-15:2010
CE	2014/30/EU (EMC)	EN61000-6-4 (2007) EN61000-6-2 (2005)
Electrical Characteristics		
Power	24 VDC +/- 20 %	
Current consumption	Max 400mA at 24VDC, Typical 200 mA at 24VDC	
Hardware Characteristics		
Reverse voltage protection	Yes	
Short circuit protection	Yes	
Environmental Characteristics		
Operating temp	-25 to 65 °C, -13 to 149 °F (for all other networks) -25 to 50 °C, -13 to 122 °F (only for Profinet IRT Fibre Optic)	IEC 68-2-1, IEC 68-2-2
Storage temp	-40 to 85 °C, -40 to 185 °F	IEC 68-2-1, IEC 68-2-2
Relative Humidity	5-95 % non condensing	IEC 68-2-30
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 V/rms	EN 61000-4-6
Emission (at 3 m)	50 dB 30 MHz - 230 MHz 57 dB 30 MHz - 1 GHz	EN 55016-2-3
Single Pack Accessories		
• Configuration Cable (USB) • Installation sheet		



NETWORK SPECIFIC FEATURES

1 = Network connector, **2** = Baud rate,
3 = I/O data, **4** = Other, **5** = Amount of slaves / adapters

MASTER	
ASI	**1** = 2*2p; 5,08 Phoenix Plug **2** = 167 kbit/s **3** = 248/186 (digital input/output) **4** = ASI version 3.0 **5** = 62
DeviceNet	**1** = 5*5p; 5.08 Phoenix Plug **2** = 125-500 kbit/s **3** = 512 byte IN/OUT **4** = DeviceNet 2.0 scanner **5** = 63
EtherNet/IP	**1** = RJ45 **2** = 10/100 Mbit/s **3** = 509/505 byte IN/OUT **4** = FTP Server, Web Server, SMTP Client **5** = 64
PROFIBUS	**1** = DSUB9F **2** = Up to 12 Mb **3** = 512 byte IN/OUT **4** = Profibus DP (IEC 61158) **5** = 125
SLAVE	
CANopen	**1** = DSUB9M **2** = Up to 1 Mbit/s **3** = 512 byte IN/OUT **4** = Supports profile CIA DS301 V4.02
CC-Link	**1** = 1*5p; 5.08 Phoenix Plug **2** = Up to 10 Mbit/s **3** = 896 IO points, 128 word IN/OUT **4** = Up to 4 occupied stations
CC-Link IE Field	**1** = 2*RJ45 **2** = Up to 1 Gbp/s **3** = 512 byte IN/OUT **4** = CC-Link IE Field Network intelligent device station
ControlNet	**1** = 2*BNC Coax + RJ45 (NAP) **2** = 5 Mbit/s **3** = 450 byte IN/OUT **4** = Communications adapter, profile n. 12
DeviceNet	**1** = 1*5p; 5.08 Phoenix Plug **2** = 125-500 kbit/s **3** = 512 byte IN/OUT **4** = Communications adapter, profile n. 12
EtherCAT	**1** = 2*RJ45 **2** = 100 Mbit/s **3** = 512 byte IN/OUT **4** = DS301 V4.02 compliant, 4 FMMU Channels
EtherNet/IP	**1** = 2*RJ45 **2** = 10/100 Mbit/s **3** = 509/505 byte IN/OUT **4** = EtherNet/IP group 2 and 3 server. Modbus TCP slave functionality
FIPIO	**1** = DSUB9M **2** = 1 Mbit/s **3** = 32 words IN/OUT **4** = Data exchange according to FIPIO Extended Device Profile, Class 0
Interbus RS485	**1** = DSUB9F + DSUB9M **2** = 500 kbit/s, 2 Mbit/s **3** = 20 byte IN/OUT (process data), 512 bytes IN/OUT (with PCP) **4** = PCP V.2.0 (0 or 1 word)
Interbus Fibre Optic	**1** = HFBR-2505C, HFBR-1505C **2** = 500 kbit/s, 2 Mbit/s **3** = 20 byte IN/OUT (process data), 512 bytes IN/OUT (with PCP) **4** = IEC874-2 and DIN47258
J1939	**1** = 1*5p; 5.08 Phoenix Plug (Profibus / EtherNet/IP / Modbus-TCP) DSUB15M (Modbus RTU) **2** = - **3** = 2048 bytes IN/OUT (Modbus RTU), 248-500 (EtherNet/IP), Modbus TCP 499/495 bytes Profibus **4** = SAEJ1939
LonWorks	**1** = 1*5p; 5.08 Phoenix Plug **2** = 78 kbit/s **3** = 256 network variables in/out **4** = Lonmark objects handling
Modbus Plus	**1** = DSUB9F **2** = 1 Mbit/s **3** = 32 words IN/OUT (global data) **4** = Modbus Plus Host Firmware Rev. 77
Modbus RTU	**1** = DSUB9F **2** = 1,2-57,6 kbit/s **3** = 256 registers in each direction **4** = RS232 and RS485
Modbus TCP	**1** = 2*RJ45 **2** = 10/100 Mbit/s **3** = 512 byte IN/OUT **4** = Supports EtherNet/IP
POWERLINK	**1** = 2*RJ45 **2** = 100 Mbit/s **3** = 254 byte IN/OUT
PROFIBUS	**1** = DSUB9F **2** = Up to 12 Mbit/s **3** = Up to 244 bytes data using DP / Up to 512 bytes using DPV1 (Max 344 bytes in+out) **4** = Profibus DP (IEC 61158)
PROFINET-IO	**1** = RJ45 **2** = 10/100 Mbit/s **3** = 512 byte IN/OUT **4** = RT Communication and Cyclic data exchange
PROFINET IRT	**1** = 2*RJ45 **2** = 100 Mbit/s **3** = 512 byte IN/OUT **4** = RT Communication and integrated IRT switch functionality
PROFINET IRT Fibre Optics	**1** = 2*SC-RJ FO connectors **2** = 100 Mbit/s **3** = 220 byte IN/OUT **4** = RT Communication and integrated IRT switch functionality

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Anybus X-gateway Ordercode Matrix

		Slaves																		
		Ethernet/IP	DeviceNet	Modbus TCP	PROFIBUS	PROFINET-IO (V2.2X) Copper	PROFINET IRT (V2.2X) Fiber	PROFINET IRT (V2.3X) Copper	POWERLINK	EtherCAT	CC-Link IE Field	CC Link	CANopen	LONWorks	ControlNet	FIP	Interbus Copper	Interbus Fiber	Modbus Plus	Modbus RTU	J1939
Masters	PROFIBUS	AB7800	AB7802	AB7629	AB7801	AB7646	n.a.	AB7500	AB7521	AB7696	AB7953	AB7810	AB7807	n.a.	AB7803	AB7804	AB7805	AB7806	AB7809	AB7808	n.a.
	DeviceNet	AB7916 AB7607	AB7811	AB7630	AB7663	AB7647	n.a.	AB7501	AB7522	AB7697	AB7955	AB7819	AB7816	n.a.	AB7812	AB7813	AB7814	AB7815	AB7818	AB7817	n.a.
	ASI	AB7820	AB7822	AB7631	AB7821	AB7648	n.a.	AB7502	n.a.	AB7698	n.a.	AB7830	AB7827	n.a.	AB7823	AB7824	AB7825	AB7826	AB7829	AB7828	n.a.
	Ethernet/IP	AB7668	AB7672	AB7669	AB7671	AB7670	n.a.	AB7503	AB7524	AB7699	AB7957	AB7680	AB7677	n.a.	AB7673	AB7674	AB7675	AB7676	AB7679	AB7678	n.a.
	CANopen	AB7306	AB7302	AB7308	AB7301	AB7307	n.a.	AB7329	n.a.	AB7300	n.a.	n.a.	AB7304	n.a.	AB7303	n.a.	n.a.	n.a.	n.a.	AB7305	n.a.
	Modbus TCP	AB9006	AB9002	AB9008	AB9001	AB9007	n.a.	n.a.	n.a.	AB9000	n.a.	AB9009	AB9004	n.a.	AB9003	n.a.	n.a.	n.a.	n.a.	AB9005	n.a.
Slaves	Ethernet/IP	AB7831	AB7833	AB7632	AB7832	AB7649	AB7980	AB7504	AB7525	AB7682	AB7956	AB7841	AB7838	AB7842	AB7834	AB7835	AB7836	AB7837	AB7840	AB7839	AB7665
	DeviceNet	AB7833	AB7854	AB7635	AB7844	AB7653	n.a.	AB7509	AB7530	AB7686	AB7960	AB7862	AB7859	AB7863	AB7855	AB7856	AB7857	AB7858	AB7861	AB7860	n.a.
	Modbus TCP	AB7632	AB7635	AB7633	AB7634	AB7650	AB7979	AB7505	AB7526	AB7901	AB7958	AB7643	AB7640	AB7644	AB7636	AB7637	AB7638	AB7639	AB7642	AB7641	AB7665
	PROFIBUS	AB7832	AB7844	AB7634	AB7843	AB7652	AB7944	AB7508	AB7529	AB7685	AB7959	AB7852	AB7849	AB7853	AB7845	AB7846	AB7847	AB7848	AB7851	AB7850	AB7615
	PROFINET-IO (V2.2X) Copper	AB7649	AB7653	AB7650	AB7652	AB7651	n.a.	n.a.	n.a.	AB7684	AB7954	AB7661	AB7658	AB7662	AB7654	AB7655	AB7656	AB7657	AB7660	AB7659	n.a.
	PROFINET IRT (V2.2X) Fiber	AB7980	n.a.	AB7979	AB7944	n.a.	AB7972	n.a.	n.a.	AB7970	n.a.	n.a.	AB7943	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	PROFINET IRT (V2.3X) Copper	AB7504	AB7509	AB7505	AB7508	n.a.	n.a.	AB7519	AB7540	AB7506	AB7507	AB7512	AB7510	AB7513	AB7514	AB7515	AB7516	AB7517	AB7518	AB7511	n.a.
	POWERLINK	AB7525	AB7530	AB7526	AB7529	n.a.	n.a.	AB7540	AB7544	AB7527	AB7528	AB7533	AB7531	n.a.	AB7535	n.a.	n.a.	n.a.	AB7539	AB7532	n.a.
	EtherCAT	AB7682	AB7686	AB7901	AB7685	AB7684	AB7970	AB7506	AB7527	AB7900	AB7961	AB7694	AB7691	AB7695	AB7687	AB7688	AB7689	AB7690	AB7693	AB7692	n.a.
	CC-Link IE Field	AB7956	AB7960	AB7958	AB7959	AB7954	n.a.	AB7507	AB7528	AB7961	n.a.	n.a.	AB7963	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	AB7964	n.a.
	CC Link	AB7841	AB7862	AB7643	AB7852	AB7661	n.a.	AB7512	AB7533	AB7694	n.a.	AB7626	AB7897	AB7627	AB7871	AB7879	AB7886	AB7892	AB7624	AB7621	n.a.
	CANopen	AB7838	AB7859	AB7640	AB7849	AB7658	AB7943	AB7510	AB7531	AB7691	AB7963	AB7897	AB7894	AB7898	AB7868	AB7876	AB7883	AB7889	AB7896	AB7895	n.a.
	LONWorks	AB7842	AB7863	AB7644	AB7853	AB7662	n.a.	AB7513	n.a.	AB7695	n.a.	AB7627	AB7898	AB7628	AB7872	AB7880	AB7887	AB7893	AB7625	AB7009	n.a.
	ControlNet	AB7834	AB7855	AB7636	AB7845	AB7654	n.a.	AB7514	AB7535	AB7687	n.a.	AB7871	AB7868	AB7872	AB7864	AB7865	AB7866	AB7867	AB7870	AB7869	n.a.
	FIP	AB7835	AB7856	AB7637	AB7846	AB7655	n.a.	AB7515	n.a.	AB7688	n.a.	AB7879	AB7876	AB7880	AB7865	AB7873	AB7874	AB7875	AB7878	AB7877	n.a.
	Interbus Copper	AB7836	AB7857	AB7638	AB7847	AB7656	n.a.	AB7516	n.a.	AB7689	n.a.	AB7886	AB7883	AB7887	AB7866	AB7874	AB7881	AB7882	AB7885	AB7884	n.a.
	Interbus Fiber	AB7837	AB7858	AB7639	AB7848	AB7657	n.a.	AB7517	n.a.	AB7690	n.a.	AB7892	AB7889	AB7893	AB7867	AB7875	AB7882	AB7888	AB7891	AB7890	n.a.
	Modbus Plus	AB7840	AB7861	AB7642	AB7851	AB7660	n.a.	AB7518	AB7539	AB7693	n.a.	AB7624	AB7896	AB7625	AB7870	AB7878	AB7885	AB7891	AB7623	AB7620	n.a.
	Modbus RTU	AB7839	AB7860	AB7641	AB7850	AB7659	n.a.	AB7511	AB7532	AB7692	AB7964	AB7621	AB7895	AB7009	AB7869	AB7877	AB7884	AB7890	AB7620	AB7899	AB7612
	J1939	AB7665	n.a.	AB7665	AB7615	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	AB7612	n.a.