PROFIBUS/PROFINET to .NET gateway

The Anybus PROFIBUS/PROFINET to .NET gateways enable factory-floor data from PROFINET or PROFIBUS to be presented to .NET applications. As a .NET programmer, you can get data directly from a PLC system and use this data in applications for statistics, analysis or maintenance. PLC programmers can provide real-time data without interfering with critical applications.

Typical Industries

Availablilty

PROFIBUS
Order number AB9071-B

PROFINET
Order number AB9077-B

The Anybus PROFIBUS/PROFINET to .NET gateways send and receive data between a PLC network using PROFIBUS or PROFINET, and IT platforms using .NET. The solution can be used for a wide range of use cases, from simple transfer of KPI values, advanced messages with structured data types, or ultra-fast transfer of I/O data for "big data."

How it works

The information exchange between the Operational Technology (OT) side and the Information Technology (IT) side is defined in a spreadsheet template. The spreadsheet is uploaded to the HMS code generator which automatically creates a customized high level C# API (events and Post methods) that is easy to integrate directly into a .NET application. It also generates a customized GSDML file for the PLC.

Features and benefits

- System for connecting one or multiple PLCs to IT/software systems.
- Send and receive data from each side.
- PLC programmer is in full control – PLC access via fieldbus or Ethernet slave interface.
- IT style interface: customized names, receive events and post structured data via C# / .NET interface.
- Automated configuration – system generates fully customized C# API and PLC configuration (GSDML etc), with names and data types according to parameter list agreed between software programmer and PLC programmer.
- Configuration is stored in C# program on customer side. In the event of a replaced gateway hardware, the system will automatically restore the configuration onto the new hardware.
- Dual Port switched Ethernet allows daisy chaining on all Ethernet ports.
- Robust design for optimized cabling, DIN-rail or wall mount options.

KPI Mode

The KPI mode is designed for sending a limited set of parameters (typically KPI values) from the PLC to the .NET/C# environment. Everything is pre-configured and with a minimum of steps it is possible to start receiving KPI data values from the PLC.

Structured Data Event Mode

In this mode, structured data types (such as recipes) are sent to and from the PLC and presented to the C# programmer as events or post methods. The programmers agree on a list of parameters (names, direction and datatypes) and the system automatically generates a high level C# interface and PLC configuration files.

3 YEAR GUARANTEE

HMS provides a full 3 year product guarantee

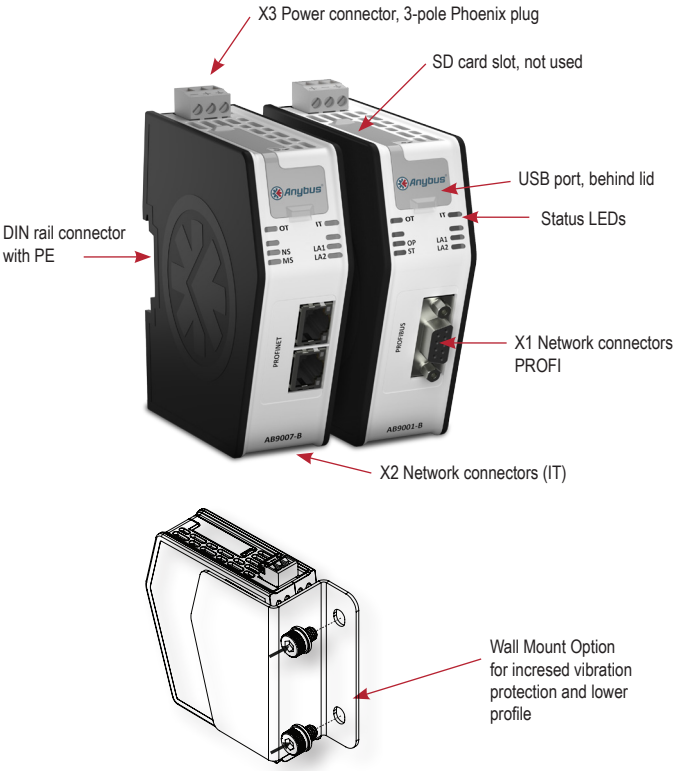
TECHNICAL SPECIFICATIONS

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		
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	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 V/rms	EN 61000-4-6
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

NETWORK SPECIFIC FEATURES

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

SLAVE / ADAPTER / SERVER / DEVICE	
PROFIBUS	**1** = DSUB9F **2** = Up to 12 Mbit/s **3** = 512 IN/OUT **4** = I&M functions
PROFINET IRT - 2 port	**1** = RJ45 **2** = 100 Mbit/s **3** = 1 500 byte IN/OUT **4** = Supports re-map commands from PLC



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