# Anybus X-gateway – Modbus RTU Slave – J1939

The Anybus X-gateway J1939 Gateway provides connectivity between a Modbus RTU (serial) network and a J1939 Heavy Duty vehicle (CAN) network. The X-gateway appears as a Modbus Slave device allowing a Modbus Master to read or write data from the J1939 network.

**EASY CONFIGURATION - NO PROGRAMMING REQUIRED!**

HMS provides the X-gateway with a free Windows based configuration tool (BWConfig). This PC based software allows the user to map J1939 parameter (PGN) data into a range of memory addressable through the Anybus X-gateway Modbus RTU interface.

Configuration of the X-gateway is simple using BWConfig and consists of setting up an I/O table containing selected J1939 PGNs and the rate that each will be read or written from the J1939 network. BWConfig will then automatically map the I/O table to a range of addresses accessible from the Anybus X-gateway Modbus RTU interface.

The configuration is downloaded from the PC to the Anybus X-gateway via an RS232 connection and is saved in FLASH memory.

## Features and benefits

- Monitor and control data on a J1939 heavy duty vehicle network from Modbus RTU PLC system or device
- Typical applications: Electric Power Generation, Oil & Gas, Marine, Military, Heavy Duty Vehicles, Any Diesel Engine based system supporting J1939
- Max 500 bytes of I/O data in each direction
- Easy configuration via the included BWConfig Windows Software. No programming required
- Robust aluminum stand-alone housing
- Global free technical support and consultancy

## Modbus RTU Slave interface

Modbus RTU network address settings made via on-board configuration switches

- Complete Modbus RTU slave functionality
- Max 512 bytes of Input and 512 bytes of Output data
- Modbus diagnostics support
- Configuration via on-board DIP switches
- Modbus RTU baudrate 12-57,6 kbit/s
- 1x D-sub 9-pin female network connector

# J1939 interface

- SAE J1939 network interface with a unique network address in accordance to the J1939-81 specification
- Max 496 bytes of I/O Input data and 492 bytes of I/O Output Data
- Up to 120 PGN's monitored by Input data points
- Up to 100 PGN's  transmitted by Output data points
- Supports J1939 network baud rates of 250K and 500K
- Transmission and reception of all types of fixed-length J1939 messages, including PDU1, PDU2, broadcast and destination specific
- Monitoring of DM1 (active diagnostics) and DM2 (previously active diagnostics) messages
- Complete network address management including address claim, protection, and yield on higher priority conflict
- Network address can be self-configurable over a range of addresses
- J1939 Transport Protocol for transmission and reception of large messages (9 - 1785 bytes). Both connection based (RTS/CTS) and broadcast (BAM) are supported
- Configurable CAN bus-off reset option will reset the network interface and attempt to return to online when a CAN bus-off condition is detected
- 1x 5-pole 5.08 mm Phoenix pluggable screw connector for J1939

**TECHNICAL SPECIFICATIONS**

| | |
|---|---|
| **Dimensions (L•W•H)** | 114 x 44 x 127mm or 4,49 x 1,73 x 5,00" |
| **Weight** | 400g or 0,880 lbs |
| **Operating temperature** | -25 to +65 °C  or  -13 to +149 °F |
| **Storage temperature** | -40 to +85 °C  or  -40 to +185 °F |
| **Power supply** | 24 VDC +/- 20% via 2-pole 5.08 mm Phoenix pluggable screw connector |
| **Current consumption** | max. 400mA (Typical 200mA) |
| **Enclosure material** | Aluminium and plastic |
| **Installation position** | Vertical / Flat* |
| **Galvanic isolation** | YES, on both BUS/Ethernet side |
| **Mechanical rating** | IP20, NEMA rating 1 |
| **Mounting** | DIN-rail (EN 50022 standard) |
| **I/O configuration** | via USB port with Anybus Configuration Manager software |
| **Certifications** | CE, $_{C}$UL$_{US}$, RoHS |

| File | Version | Size | Read online |
|---|---|---|---|

Ordering information

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|---|---|
| **Order Code** | AB7612 |
| **Included components** | Gateway<br>Quick start documentation<br>USB configuration cable |

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|---|---|
| | Power supply **not** included<br>Configuration software is available for download. |

3 year guarantee. For purchasing instructions and terms and conditions, see: How to buy