

BridgeWay™ J1939 to Modbus Interface (AB7606)

The BridgeWay J1939 to Modbus Interface provides connectivity between a Modbus RTU (RS485 serial) network and a J1939 (CAN) network. The AB7606 operates as a Modbus RTU Slave device, allowing a Modbus RTU Master to read and write J1939 PGN data. Pyramid Solutions provides a free downloadable Windows-based configuration tool (BWConfig) for the AB7606. This PC-based software enables mapping of J1939 parameter (PGN) data into the AB7606 I/O table memory, which is accessible from a Modbus RTU Master as Modbus registers.

Configuration of the AB7606 is easy with BWConfig. It consists of setting up an I/O table containing the J1939 PGNs you wish to read or write, and the rate at which each will be read or written from/to the J1939 network. BWConfig maps the I/O table to a range of Modbus registers accessible from the AB7606 Modbus RTU interface. The configuration is downloaded from BWConfig to the AB7606 via an RS232 connection and is saved in Flash memory. You can also upload an existing configuration from the AB7606 for comparison or to update the configuration.

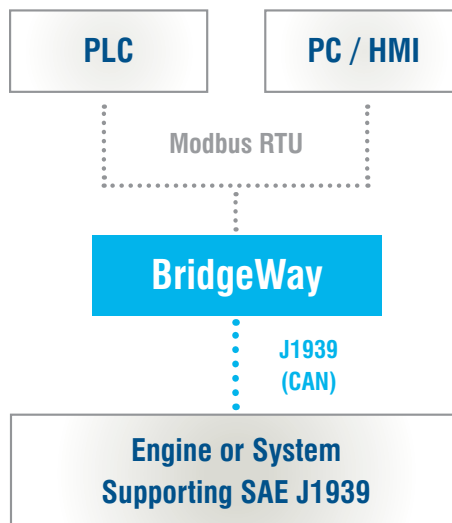
Use Case Examples

- A low-cost interface used on oil and gas equipment, marine vessels, locomotives, pumping stations, generators, engine test cells and other mobile and stationary equipment. Use to access engine parameters from a Programmable Logic Controller (PLC), HMI or PC and send data onto the J1939 network for control and management.
- An on-vehicle gateway used to interface a J1939 network to an onboard industrial automation based control and monitoring system or HMI

Key Features

- Configuration via free Windows-based software tool (BWConfig)
- Supports Flash field upgrades
- LED network and module status indicators
- DIN (includes DIN rail mount)
- Rugged extruded aluminum enclosure
- Brand label/OEM options
- Supports SAE J1939 (CAN) and Modbus RTU Slave (serial RS485)
- Support for J1939 CAN baud rates of 125K, 250K and 500K
- J1939 diagnostic monitoring with DM-1 and DM-2 message support
- Monitor up to 120 J1939 PGNs and transmit up to 100 PGNs

BridgeWay network gateways and interfaces provide low cost, high performance, and flexible connectivity solutions for a wide range of applications, including industrial automation and vehicle networks. Designed as a modular platform with configurable hardware and software, BridgeWay products can be adapted to meet your specific needs.



Target Industries and Application Examples

- Oil and Gas Equipment
- Marine Vessels
- Locomotives
- Commercial, Construction, Agricultural, Recreational Vehicles
- Electric Power Generation (Diesel GenSets)
- Water and Waste Water Systems
- Engine Testing and Validation
- Monitoring/control systems that require J1939 data and control

Specifications for Part No. AB7606

- Mechanical dimensions: L = 4.96" (126mm); W = 4.30" (109mm); H = 1.65" (42mm)
- Approximate weight: 16 oz
- Operating voltage: 11 – 32 VDC
- Current requirements: 93-95 mA at 24 VDC
- Operating temperature: 0 - 70° C
- EMC compliance: EN50081-2 and EN50082-2
- Certifications: CE and cULus
- UL certification: E203225, Listed 67AM, UL-1604 Class 1, Div 2, GP A, B, C, D, Temp code T4
- ATEX certification: ATEX 135419, II 3 G, EEx nL IIC T4, DEMKO 03

Optional Accessories

AB7606 Configuration Kit (Part No. AB7606-CFG)

The kit contains the following materials:

- 3 meter 25 to 9 pin serial cable used to configure the module with our BWConfig software
- Mini CD holds latest version of our AB7606 user manual, BWConfig software, application notes, sample configurations

AB7606 15 Pin Connector and Backshell Kit (Part No. AB7606-CON)

The kit contains the material needed to connect AB7606 to a J1939 Network, Module Power and Modbus RTU RS485 network:

- 15 pin D connector with numbered solder cups

Please visit our web site to get the very latest firmware updates for Profibus to DeviceNet Gateway (AB7606)

Get up and running with BridgeWay Services

Need help designing a network solution? Configuring or integrating your BridgeWay? We offer consulting, development and system integration services, including custom software development, to help you achieve your specific application requirements.

Flexible BridgeWay gateways and interfaces offer a significant range of functionality and are used in a wide range of applications. Businesses that want to make the most of these capabilities, or even expand on them, can take advantage of our *professional services* expertise, especially when schedules are tight or custom functionality is required. We can create a solution package based on your specific needs, ranging from remote hourly support, to onsite services or turnkey custom development. BridgeWay services include:

- BridgeWay solution network design, installation and configuration assistance
- BridgeWay and network training
- Remote support/consulting services (scheduled hourly services via phone or email)
- Onsite services (fixed price or hourly)
- Custom BridgeWay enhancements and PC software applications

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NETWORK CONNECTIVITY GROUP

For more information, please contact
Glenn Beal: +1 248 549 1200 X5791
gbeal@pyramidsolutions.com