

BridgeWay™ Ethernet to J1939 Gateway (AB7645)

The BridgeWay Ethernet to J1939 Gateway supports EtherNet/IP and Modbus/TCP protocols over Ethernet. The AB7645 can operate as an EtherNet/IP Adapter Class device, allowing an EtherNet/IP Scanner to read and write J1939 network data. The AB7645 can also operate as a Modbus/TCP Slave, allowing a Modbus/TCP Master to read and write J1939 network data. Pyramid Solutions offers a free Windows-based configuration tool that allows the user to map J1939 parameter (PGN) data into input and output tables accessible over EtherNet/IP (via Assembly data) or Modbus/TCP (via Register data).

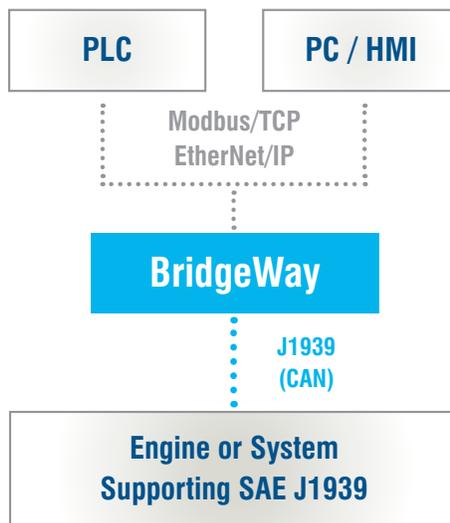
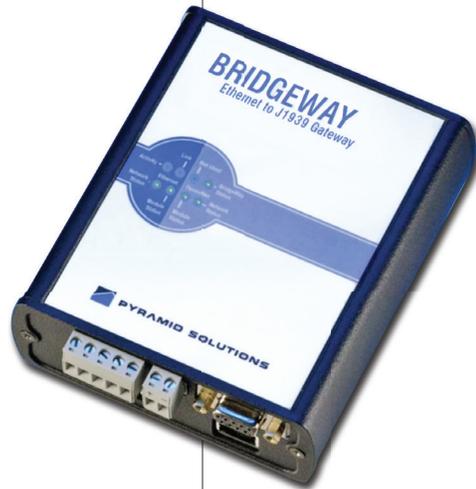
Use Case Examples

- 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 to 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

- A configurable gateway that allows the user to configure the specific J1939 PGN messages to be transmitted or received by the module
- Supports SAE J1939 vehicle protocol, EtherNet/IP (adapter) and Modbus/TCP (Slave) industrial automation protocols.
- Works with ControlLogix, CompactLogix, SLC5/05, MicroLogix and other compatible PLCs, HMIs and Controllers supporting native EtherNet/IP (CIP) messaging and connections
- Configuration via free Windows-based software tool
- Supports Flash field upgrades
- LED network and module status indicators
- Includes DIN rail mount
- Rugged extruded aluminum enclosure
- Brand label/OEM options
- 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 requiring J1939 data and control

Specifications for Part No. AB7645

- 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: 130-140 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
- Mechanical rating: IP20 / NEMA 1

Optional Accessories

AB7645 Configuration Kit (Part No. AB7645-CFG)

The kit contains the following materials:

- 3 meter 9 to 9 pin serial cable used to configure the module with our BWConfig software
- Mini CD holds latest version of AB7645 user manual, BWConfig software, application notes, sample configurations, ControlLogix and MicroLogix examples, and EDS file

Please visit our web site to get the very latest firmware updates for Ethernet to J1939 Gateway (AB7645)

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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