



# BridgeWay™

## J1939 to Modbus Interface



**Seamless connectivity & control.**



**PYRAMID SOLUTIONS**

# TRANSPARENT MONITORING AND CONTROL

## TYPICAL APPLICATIONS

**Truck and Bus**

**Marine**

**Mining**

**Construction**

**Agriculture**

**Power generation**

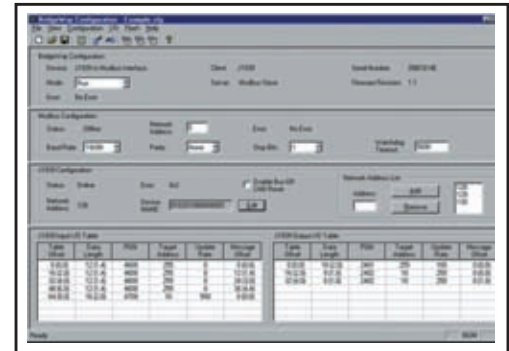


**Simple. Reliable. Cost-effective.**

# Seamless J1939 to Modbus connectivity

**T**he BridgeWay J1939 to Modbus Interface is a compact device that solves a mission-critical problem: bridging the gap between J1939 heavy-duty vehicle networks and Modbus monitoring and control systems. The unit enables communication of critical performance and fault data, for real-time monitoring, automation and operator control.

BridgeWay is designed for use across a wide variety of applications and industries. These include heavy-duty trucks, public transit vehicles, marine vessels, construction, agricultural equipment and stationary power generation systems.



Sample BWConfig software screen

**How it works.** Performing both protocol conversion and physical connectivity, Bridgeway uses an easily configurable internal table to map data streams linking monitoring and control systems to J1939 devices. This table is configured using Pyramid's BWConfig software, an intuitive Windows-based software tool. Once configured, data is accessed by a Modbus master through BridgeWay using standard Modbus read and write commands. The device seamlessly interfaces any J1939 network component to a Modbus RTU master device.

Unlike other devices that are statically configured and limit the number and types of data accessed, BridgeWay is configurable to enable access to as much or as little data as is required for your unique application.

**Easy to Integrate.** Designed especially with OEMs in mind, the Bridgeway is designed to integrate easy and operate reliably in virtually any J1939 to Modbus application. Ruggedly built, the device is DIN rail mountable and is adaptable to a wide variety of physical environments.

Easy to use, install and configure, the Bridgeway provides seamless, transparent J1939 to Modbus connectivity. Simply. Reliably. And cost-effectively.

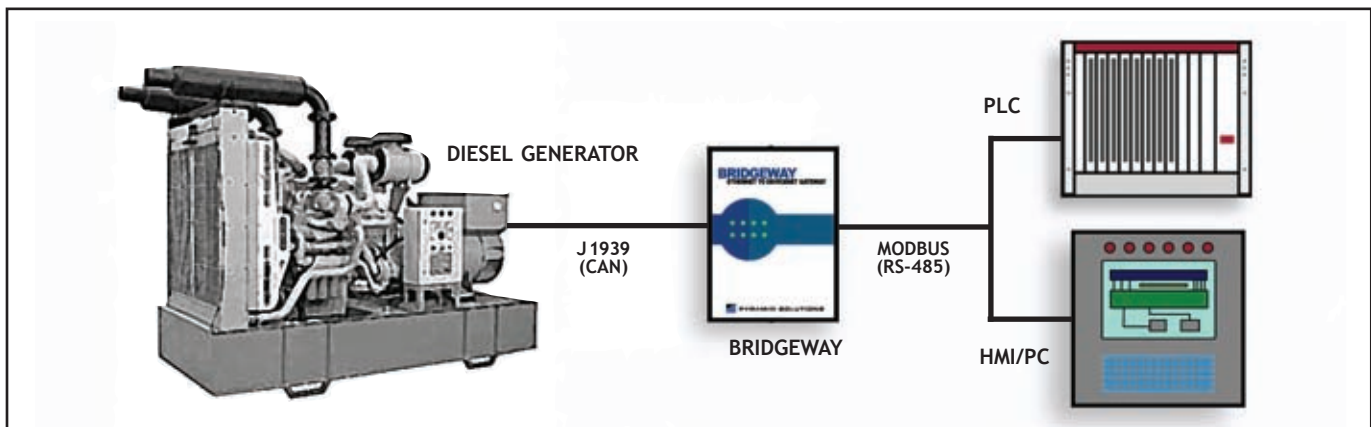


## Key benefits

- Highly configurable and flexible
- Feature-rich, cost-effective solution
- Rapid installation and configuration
- Low risk, reliable operation
- Superior product support

## Key features

- SAE J1939 compliant including transport protocol for transmission and reception of large messages
- Modbus RTU slave; RS-485 half duplex interface
- Support of all commonly used Modbus functions for reading and writing I/O data and diagnostics
- Configuration via a Windows-based PC software tool
- LED network and module status indicators
- DIN rail mountable rugged aluminum enclosure



# BridgeWay J1939 to Modbus Interface

---

## PROTOCOLS SUPPORTED

### J1939

- Transmission and reception of all types of J1939 messages, including PDU1, PDU2, broadcast and destination specific.
- 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.

### Modbus

- Modbus RTU slave.
- RS-485 half-duplex (2 wire) serial interface.
- Configurable baud rates of 4800, 9600, and 19200 bps.
- Configurable for no, odd, or even parity and 1 or 2 stop bits.
- Support of all commonly used Modbus functions for reading and writing I/O data and diagnostics.
- Overall module, Modbus, and J1939 status and diagnostics accessible through Modbus diagnostic functions and addressable registers.

### Specifications

Mechanical Dimensions:	L 126 mm, W 109 mm, H 42 mm
Operating Voltage:	12-30 V DC
Current Draw:	24 V DC, 300 mA typical
Temperature Rating:	
Operating:	0°C to 70°C
Storage:	-25°C to 85°C
Humidity Rating:	5% to 95% (non-condensing)
Certifications:	CE, C-UL US Listed
Mechanical Rating:	IP20 / NEMA 1
Part No.:	AB7606

